COMPETENCY STANDARDS & ASSESSMENT GUIDE
FOR
WEB DEVELOPMENT - PHP

Skills for Employment Investment Program (SEIP)
Finance Division, Ministry of Finance

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INTRODUCTION:

The Skills for Employment Investment Program (SEIP) Project of the Finance Division of the Ministry of Finance has embarked on a project which aims to qualitatively and quantitatively expand the skilling capacity of identified public and private training providers by establishing and operationalizing a responsive skill eco system and delivery mechanism through a combination of well-defined set of funding triggers and targeted capacity support.

Among the many components of the project, one is to promote a Market Responsive Inclusive Skills Training Delivery program. Key priority economic growth sectors identified by government have been targeted by the project to improve current job skills along with up-skilling of the existing workforce to ensure 'required skills to industry standards'. Training providers are encouraged, supported to work with the industry to address identified skills to enable industry growth, and increased employment through the provision of market responsive inclusive skills training programs. Priority sectors were identified to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISCs), Employer Associations and Employers.

This document is developed to improve skills in accordance with the job roles and skill sets of the occupation and ensure that the required skills are aligned to industry requirements.

The document details the format, sequencing, wording and layout of the Competency Standard for an occupation that comprised Units of Competence and its corresponding Elements.

OVERVIEW:

A **Competency Standard** is a written specification of the knowledge, skills and attitudes required for the performance of a job or occupation or trade corresponding to the standard of performance required in the workplace.

Competency standard:

- Provides a consistent and reliable set of components for training, recognizing and assessing people's skills, and may have optional support materials.
- Enables industry recognized qualifications to be awarded through direct assessment of workplace competencies
- Encourages the development and delivery of flexible training which suits individual and industry requirements
- Encourages learning and assessment in a work-related environment that leads to verifiable workplace outcomes.

A working group who comprised national and international process experts develops competency Standards and the participation of experts from the industry to identify the competencies required of an occupation in a particular sector.

Competency Standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. Competency Standards acknowledge that people can achieve vocational and technical competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With Competency Standards, training and assessment may be conducted at the workplace or at training organization or any combination of these.

A Unit of Competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of Competency are documented in a standard format that comprises:

- Reference to Industry Sector, Occupational Title and Occupational Description
- Unit code
- Unit title
- Unit descriptor
- Unit of Competency
- Elements and performance criteria
- Variables and range statement
- Evidence guides

Together all the parts of a Unit of Competence:

- Describe a work activity
- Guide the assessor in determining whether the candidate is competent.

Identification and validation of units of competency and elements for this occupation were made by expert of various IT companies through an industry consultative workshop held at the Bangladesh Association of Software and Information Services (BASIS)20TH of March 2016.

Profile of experts and facilitators who participated in the Competency Verification and Validation Workshop are given below.

Competency Verification-Validation Experts:

Name	Company	Job Position
Mr. Md. Mokhlesur Rahman	SPONDON	CEO
Mr. MdFaruk Hossain	Bording Vista Ltd.	Team Leader, Graphic Design
Mrs. Sayma Begum	BITM	Asst. Trainer
Mr. ZohirulAlamTiemoon	Nerd Castle, Ltd	CEO
Mr. Tayabur Rahman Masud	BITM	Asst. Trainer
Mr. MianZadidRusdid	BITM	Lead Trainer
Mr. Khondoker Ali Asgor Pavel	BitBirds Solution	CEO
Md. Hasib	BITM	Executive,IT
Sifat-E-Tanzim	Liveoutsource,LTd.	Software Engineer

Workshop Facilitators:

Md. Mohiuzzaman	SEIP	Course Specialist
Emeterio Cedillo, Jr.	SEIP	International Specialist
Mr. Muhammad Mofizur Rahman	SEIP	National Consultant

The ensuing sections of this document comprise a description of the respective occupation with all the key components of a Unit of Competency:

- A chart with an overview of all Units of Competency for the respective occupation including the Unit Codes and the Unit of Competency titles and corresponding Elements.

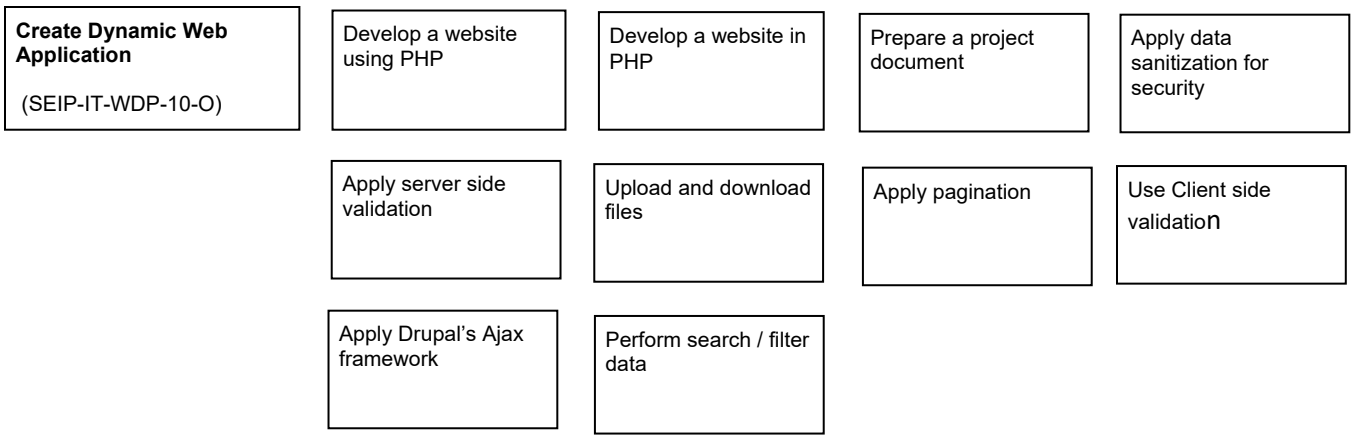
- The Competency Standards that include the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

COMPETENCY PROFILE/ CHART
for Web Development PHP

UNITS OF COMPETENCY	ELEMENTS			
Generic (Basic) Competencies				
Perform Computations Using Basic Mathematical Concepts (SEIP-IT-WDP-1-G)	Identify calculation requirements in the workplace.	Select appropriate mathematical methods/concepts for the calculation	Use tool/instrument to perform calculations	
Apply Occupational Health and Safety (OHS) Practices in The Workplace (SEIP-IT-WDP-2-G)	Identify OHS policies and procedures	Apply personal health and safety practices	Report hazards and risks	Respond to emergencies
Communicate In English in the Workplace (SEIP-IT-WDP-3-G)	Read and understand Workplace documents in English	Write simple workplace written communications in English.	Listen and comprehend to English conversation	Perform conversations in English language
Work In a Self-Directed Team (SEIP-IT-WDP-4-G)	Identify team goals and processes.	Communicate and cooperate with team members.	Work as a team member	Solve problems as a team member
Sector Specific (Common) Competencies				
Operate a Personal Computer and Use Office Application (SEIP-IT-WDP-1-S)	Start and shut down the computer	Access basic system information	Work with files, folders and user application programs	Print documents
Type Documents in Bangla and English (SEIP-IT-WDP-2-S)	Install the application	Select appropriate tools and keyboard layout	Type document using different style format	
Send and Retrieve Information Using Email, Web Browsers, Video/Audio Tools (SEIP-IT-WDP-3-S)	Access the internet	Search the internet	Research and apply 'netiquette' principals	Organize and send message
Comply To Ethical Standards in It Workplace (SEIP-IT-WDP-4-S)	Uphold the interests of clients	Deliver quality products and services	Demonstrate professionalism at work	Obey workplace code of conduct.

Occupation Specific (Core) Competencies

Explain the Web (SEIP-IT-WDP-1-O)	Identify client server architecture	Explain the operation of the web	Use web design tools	Explain role of web server
	Explain role of database server			
Setup Development Environment (SEIP-IT-WDP-2-O)	Install web server	Work using tools of web server	Install FTP clients	
Explain PHP Basics (SEIP-IT-WDP-3-O)	Explain basic PHP language	Work with PHP	Create an application	
Explain Web Concept (SEIP-IT-WDP-4-O)	Work with basic HTML	Work with Web Form	Explain GET & POST method	
Explain Clean Code (SEIP-IT-WDP-5-O)	Explain clean Code	Learn coding style guide	Learn & apply on how to handle error	
Create Software Development Life Cycle (SDLC) (SEIP-IT-WDP-6-O)	Prepare a sequence diagram from user stories	Prepare a schema diagram	Prepare mock up	Prepare user interface from the mockup using HTML / CSS
Explain Object Oriented Programming (OOP) (SEIP-IT-WDP-7-O)	Identify class properties, constants and visibility	Explain encapsulation	Explain inheritance	
Perform Web Development with PHP Using OOP (SEIP-IT-WDP-8-O)	Defined class and object	Write HTML for a website	Use JavaScript in a website	Implement Cascading Style Sheets (CSS) in a website
Work With a Relational Database Management System (RDBMS) (SEIP-IT-WDP-9-O)	Explain the Basics and historical perspectives of databases	Define relational database management System (RDBMS)	Work with database	Identify join query


Create Dynamic Web Application
(SEIP-IT-WDP-10-O)
Develop a website using PHP
Develop a website in PHP
Prepare a project document
Apply data sanitization for security
Apply server side validation
Upload and download files
Apply pagination
Use Client side validation
Apply Drupal's Ajax framework
Perform search / filter data

Units & Elements at Glance:

Generic (Basic) Competencies (46 hrs.)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SEIP-IT-WDP-1-G	Perform Computations Using Basic Mathematical Concepts	1.Identify calculation requirements in the workplace 2.Select appropriate mathematical methods/concepts for the calculation. 3.Use tool/instrument to perform calculations	14
SEIP-IT-WDP-2-G	Apply Occupational Health and Safety (OH&S) Practices in the Workplace	1. Identify OHS policies and procedures 2. Apply personal health and safety practices 3. Report hazards and risks 4. Respond to emergencies	10
SEIP-IT-WDP-3-G	Communicate in English in the Workplace	1. Read and understand workplace documents in English 2. Write simple workplace communications in English 3. Listen and comprehend to English conversations 4. Perform conversations in English language	14
SEIP-IT-WDP-4-G	Work in a Self-Directed Team	1. Identify team goals and work processes 2. Communicate and cooperate with team members. 3. Work as a team member. 4. Solve problems as a team member	8
Total Hour			**46**

Sector Specific (Common) Competencies (64 hrs.)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
SEIP-IT-WDP-1-S	Operate a Personal Computer and Use Office Application	1. Start and shut down the computer 2. Access basic system information 3. Work with files, folders and user application programs 4. Print documents	24
SEIP-IT-WDP-2-S	Type Documents in Bangla and English	1. Install the application 2. Select appropriate tools and keyboard layout 3. Type document using different style format	12
SEIP-IT-WDP-3-S	Send and Retrieve Information Using Email, Web Browsers, Video/Audio Tools	1. Access the internet 2. Search the internet 3. Research and apply 'netiquette' principals 4. Organize and send message	16
SEIP-IT-WDP-4-S	Comply to Ethical Standards in IT Workplace	1. Uphold the interests of clients 2. Deliver quality products and services 3. Demonstrate professionalism at work 4. Obey workplace code of conduct.	12
Total Hours			**64**

Occupation Specific (Core) Competencies (250 hrs.)

Code	Unit of Competency	Elements of Competency	Guided Learning Hours
SEIP-IT-WDP-1-O	Explain the Web	1. Identify client server architecture 2. Explain the operation of the web 3. Use web design tools 4. Explain role of web server 5. Explain role of database server	10
SEIP-IT-WDP-2-O	Setup Development Environment	1. Install web server 2. Work using tools of web server 3. Install FTP clients	10
SEIP-IT-WDP-3-O	Explain PHP Basics	1. Explain basic PHP language 2. Work with PHP 3. Create an application	30
SEIP-IT-WDP-4-O	Explain Web Concept	1. Work with basic HTML 2. Work with web Form 3. Explain GET & POST method	8
SEIP-IT-WDP-5-O	Explain Clean Code	1. Explain clean Code 2. Learn coding style guide 3. Learn &apply on how to handle error	12
SEIP-IT-WDP-6-O	Create Software Development Life Cycle (SDLC)	1. Prepare a sequence diagram from user stories 2. Prepare a schema diagram 3. Prepare mock up 4. Prepare user interface from the mockup using HTML / CSS	20
SEIP-IT-WDP-7-O	Explain Object Oriented Programming (OOP)	1. Identify class properties, constants and visibility 2. Explain encapsulation 3. Explain inheritance	25

SEIP-IT-WDP-8-O	Perform Web Development with PHP Using OOP	1. Defined class and object 2. Write HTML for a website 3. Use JavaScript in a website 4. Implement Cascading Style Sheets (CSS) in a website	20
SEIP-IT-WDP-9-O	Work with a Relational Database Management System (RDBMS)	1. Explain the Basics and historical perspectives of databases 2. Define Relational Database Management System (RDBMS) 3. Work with database 4. Identify join query	25
SEIP-IT-WDP-10-O	Create Dynamic Web Application	1. Develop a website using PHP 2. Develop a website in PHP 3. Prepare a project document 4. Apply data sanitization for security 5. Apply server side validation 6. Upload and download files 7. Apply pagination 8. Use Client side validation 9. Apply Drupal's Ajax framework 10. Perform search / filter data	90
Total Hours			**250**

COMPETENCY STANDARD: WEB DEVELOPMENT PHP

A: The Generic (Basic Competencies)

Unit of Competency: **PERFORM COMPUTATIONS USING BASIC MATHEMATICAL CONCEPTS**	**Nominal Duration:** 14 hrs.	**Unit Code:** SEIP-IT-WDP-1-G
Unit Descriptor: This unit of competency requires the knowledge, skills and attitude to perform computations using basic mathematical concepts in the workplace. It specifically includes the tasks of identifying calculation requirements in the workplace, selecting appropriate mathematical method/concept for the calculation and using appropriate instruments tools to carry out calculation.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify calculation requirements in the workplace	1.1 **Calculation requirements** are identified from **workplace information.**
2. Select appropriate mathematical methods/concepts for the calculation.	2.1 **Appropriate method** is selected to carry out the calculation requirements.
3. Use tool/instrument to perform calculations	3.1 Calculations are completed using appropriate **tools and instruments.**

Range of variables:

Variable	Range May include but not limited to:
2. Calculation requirements.	1.1 Area 1.2 Height 1.3 Length/Breadth/thickness 1.4 Diameter 1.5 Weight 1.6 Capacity 1.7 Time 1.8 Temperature. 1.9 Material usage 1.10 Speed 1.11 Costing 1.12 Mass 1.13 Density
3. Workplace information	2.1 Mechanical Plan 2.2 Design 2.3 Working drawing

	2.4 Verbal instructions 2.5 Job order
4. Appropriate method	3.1 Addition 3.2 Subtraction 3.3 Division 3.4 Multiplication 3.5 Conversion 3.6 Percentage and ratio calculation 3.7 Simple equation
5. Tools/instruments	4.1 Calculator 4.2 Computer

Curricular Content Guide

1. Underpinning Knowledge	1.1 Numerical concept 1.2 Basic mathematical methods such as addition, subtraction, multiplication and division and percentage. 1.3 Mathematical language, symbols and terminology. 1.4 Measuring units 1.5 Knowledge of computer application
2. Underpinning Skills	2.1 Adding numbers 2.2 Subtracting numbers 2.3 Multiplying numbers. 2.4 Dividing numbers. 2.5 Measuring of linear 2.6 Using of mathematical language, symbols, terminology and technology. 2.7 Measuring of different physical parameter. 2.8 Calculating geometrical parameters: angle, parallelism, perpendicularity, area and volume
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Promptness in carrying out activities. 3.3 Tidiness and timeliness. 3.4 Respect to peers, sub-ordinates and seniors in workplace. 3.5 Environmental concern. 3.6 Sincerity and honesty
4. Resource Implications	The following resources must be provided. 4.1 Stationeries 4.2 Consumables 4.3 Calculators 4.4 Computers 4.5 Measuring tape

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified calculation requirements from workplace information

	1.2 Selected appropriate method to carry out the calculation requirements 1.3 Completed calculations using appropriate tools/instruments
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Oral questioning 2.3 Demonstration.
6. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **APPLY OCCUPATIONAL HEALTH AND SAFETY (OHS) PRACTICES IN THE WORKPLACE**	**Nominal Duration:** 10 hrs.	**Unit Code:** SEIP-IT-WDP-2-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to apply occupational health and safety (OH&S) practices in the workplace. It specifically includes the tasks of identifying OHS policies and procedures, applying personal health and safety practices, reporting hazards and risks and responding to emergencies.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify OHS policies and procedures	1.1 **OHS policies** and safe operating procedures are read and understood. 1.2 Safety signs and symbols are identified and followed. 1.3 Emergency response, evacuation procedures and other contingency measures are determined.
2. Apply personal health and safety practices	2.1 OHS policies and procedures are followed and practiced. 2.2 **Personal Protective Equipment (PPE)** is selected and used. 2.3 Personal hygiene is maintained.
3. Report hazards and risks	3.1 **Hazards and risks** are identified, assessed and controlled. 3.2 Incidents arising from hazards and risks are reported to authority. 3.3 Corrective actions are implemented to correct unsafe conditions in the workplace.
4. Respond to emergencies	4.1 Alarms and warning devices are responded. 4.2 **Emergency response plans and procedures** are implemented. 4.3 **First aid procedure** is applied during emergency situations.

Range of Variables

Variable	Range May include but not limited to:
1. OHS policies	1.1 International OHS requirements 1.2 Bangladesh standards for OHS 1.3 Building Code 1.4 Fire Safety Rules and Regulations 1.5 Light Engineering Industry Guidelines
2. Personal Protective Equipment (PPE)	2.1 Apron 2.2 Gas Mask 2.3 Gloves 2.4 Safety shoes 2.5 Helmet 2.6 Face mask 2.7 Overalls 2.8 Goggles and safety glasses 2.9 Ear plugs 2.10 Sun block 2.11 Chemical/Gas masks
3. Hazards and risks	3.1 Chemical hazards. 3.2 Biological hazards. 3.3 Physical Hazards. 3.3.1 Machine hazards. 3.3.2 Materials hazards. 3.3.3 Tools and Equipment hazards.
4. Emergency response plans and procedures	4.1 Firefighting procedures 4.2 Earthquake response procedures 4.3 Evacuation procedures 4.4 Medical and first aid
5. First aid procedure	5.1 Washing of open wound 5.2 Washing chemically infected area 5.3 Applying bandage 5.4 Tourniquet 5.5 Applying CPR (Cardiopulmonary Resuscitation) 5.6 Taking appropriate medicine

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 OHS workplace policies and procedures. 1.2 Work safety procedures. 1.3 Emergency procedures. 1.3.1 Firefighting. 1.3.2 Earthquake response. 1.3.3 Explosion response. 1.3.4 Accident response. 1.4 Types of (biological, chemical and physical) and their effects. 1.5 PPE types and uses. 1.6 Personal hygiene practices.

	1.7 OHS awareness.
2. Underpinning Skills	2.1 Identifying OHS policies and procedures 2.2 Following personal work safety practices 2.3 Reporting hazards and risks 2.4 Responding to emergency procedures 2.5 Maintaining physical well-being in the workplace 2.6 Performing first aid. 2.7 Performing basic firefighting accessories using fire extinguishers 2.8 Applying basic first aid procedures
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Communication with peers, sub-ordinates and seniors in workplace. 3.3 Promptness in carrying out activities. 3.4 Tidiness and timeliness. 3.5 Respect of peers, sub-ordinates and seniors in workplace. 3.6 Environmental concern. 3.7 Sincere and honest to duties
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 PPEs 4.3 Firefighting equipment 4.4 Emergency response manual 4.5 First aid kits

Assessment Evidence Guide:

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Followed OHS policies and procedures 1.2 Selected and used personal protective equipment (PPE) 1.3 Reported incidents arising from hazards and risks to authority 1.4 Emergency response plans and procedures are implemented 1.5 Applied basic first aid procedure
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning 2.4 Interview
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **COMMUNICATE IN ENGLISH IN THE WORKPLACE**	**Nominal Duration:** 14 hrs.	**Unit Code:** SEIP-IT-WDP-3-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to apply English communication in the workplace. It specifically includes work tasks of reading and understanding workplace documents in English, writing simple workplace written communications in English, listening and comprehending to English conversations and performing conversations in English.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Read and understand workplace documents in English	1.1 Workplace documents are read and understood 1.2 Visual information is interpreted.
2. Write simple workplace communications in English	2.1 Simple **routine workplace documents** are prepared using key words, phrases, simple sentences and **visual aids** are prepared 2.2 Key information is written in the appropriate places in standard forms.
3. Listen and comprehend to English conversations	3.1 Active listening is demonstrated.
4. Perform conversations in English language	4.1 Conversation is performed in English with peers, customers and management to the required workplace standard.

Range of Variables

Variable	Range May Include but not limited to:
1. Routine workplace documents	1.1 Agenda 1.2 Simple reports such as progress and incident reports 1.3 Job sheets 1.4 Operational manuals 1.5 Brochures and promotional material 1.6 Visual and graphic materials 1.7 Standards 1.8 OSH information 1.9 Signs
2. Visual aids	2.1 Maps 2.2 Diagrams 2.3 Forms 2.4 Labels 2.5 Graphs 2.6 Charts

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 Read workplace documents in English 1.2 Write simple routine workplace documents in English 1.3 Listen to conversation in English 1.4 Perform conversation in English 1.5 Interaction skills (i.e., teamwork, interpersonal skills, etc.) 1.6 Job roles, responsibilities and compliances.
2. Underpinning Skills	2.1 Ability to read and understand workplace documents in English by using appropriate vocabulary and grammar, standard spelling and punctuation 2.2 Ability to write simple routine workplace documents in English such as: Schedules and agenda, job sheets, operational manuals and brochures and promotional material 2.3 Ability of listening in English and interpreting 2.4 Ability to perform conversation in English with peers, customers and management to the required workplace standard. 2.5 Work effectively with others 2.5.1 Listening and questioning skills 2.5.2 Ability to follow simple directions
3. Underpinning Attitudes	3.1 Commitment to occupational health and safety practices 3.2 Promptness in carrying out activities 3.3 Tidiness and timeliness 3.4 Respect of peers, sub-ordinates and seniors in workplace. 3.5 Environmental concern 3.6 Sincere and honest to duties
4. Resource Implications	The following resources must be provided: 4.1 Work place Procedure 4.2 Materials relevant to the proposed activity 4.3 All tools, equipment, material and documentation required. 4.4 Relevant specifications or work instructions

Assessment Evidence Guide:

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Converse in English with peers and customers 1.2 Made reports of workplace documents in English
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning 2.4 Interview
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **WORK IN A SELF-DIRECTED TEAM**	**Nominal Duration:** 8 hrs.	**Unit Code:** SEIP-IT-WDP-4-G
Unit Descriptor: This unit covers the knowledge, skills and attitudes required to work in a self-directed team. It specifically includes work tasks of identifying team goals and work processes, communicating and cooperating with team members, working and solving problems as a team member.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Identify team goals and work processes	1.1 Team goals and collaborative decision making processes are identified. 1.2 Roles and responsibilities of team members are identified. 1.3 Relationships within team and with other workers are identified.
2. Communicate and cooperate with team members.	2.1 Effective interpersonal skills are used to interact with team members and to contribute to activities and objectives. 2.2 Formal and informal **forms of communication** are used effectively to support team achievement. 2.3 Diversity in character is respected and valued in team functioning. 2.4 Views and opinions of other team members are understood and valued. 2.5 Workplace terminology is used correctly to assist communication.
3. Work as a team member.	3.1 Duties, responsibilities, authorities, objectives and task requirements are identified and clarified with team. 3.2 Tasks are performed in accordance with organizational and team requirements, specifications and workplace procedures. 3.3 Team member's support with other members are made to ensure team achieves goals, awareness and requirements. 3.4 Agreed reporting lines are followed using standard operating procedure.
4. Solve problems as a team member	4.1 Current and potential problems faced by team are identified. 4.2 A solution to the problem is identified. 4.3 Problems are solved effectively and the outcome of the implemented solution is evaluated.

Range of Variables

Variable	Range May Include but not limited to:
1. Forms of communication	1.1 Agenda 1.2 Simple reports such as progress and incident reports

	1.3 Job sheets 1.4 Operational manuals 1.5 Brochures and promotional material 1.6 Visual and graphic materials 1.7 Standards 1.8 OSH information 1.9 Signs

Curricular Evidence Guide:

1. Underpinning Knowledge	1.1 Team goals and collaborative decision making processes 1.2 Roles and responsibilities of team members 1.3 Relationships within team and with other workers 1.4 Effective interpersonal skills to interact with team members 1.5 Effective formal and informal forms of communication 1.6 Value of diversity in team functioning 1.7 Correct use of workplace terminology 1.8 Team's duties, responsibilities, authorities, objectives and task requirements 1.9 Support mechanism to other members of team to ensure achievements of goals 1.10 Methods of identifying current and potential problems faced by a team 1.11 Effectively problems solving methods and evaluation of outcomes
2. Underpinning Skills	2.1 Identifying team goals and collaborative decision making processes 2.2 Identifying roles and responsibilities of team members 2.3 Identifying relationships within team and with other workers 2.4 Using effective interpersonal skills to interact with team members and to contribute to activities and objectives 2.5 Using formal and informal forms of communication 2.6 Understanding and valuing views and opinions of other team members 2.7 Performing tasks in accordance with organizational and team requirements, specifications and workplace procedures 2.8 Supporting other members of the team to ensure team achieves goals, awareness and requirements 2.9 Identifying current and potential problems faced by the team 2.10 Identifying solutions to the problem 2.11 Solving problems effectively and evaluating the outcome of the implemented solution
3. Underpinning Attitudes	3.1 Teamwork 3.2 Promptness in carrying out activities 3.3 Tidiness and timeliness

	3.4 Respect of peers, sub-ordinates and seniors in workplace. 3.5 Sincere and honest to duties
4. Resource Implications	The following resources must be provided: 4.1 Workplace (simulated or actual) 4.2 Pens 4.3 Papers 4.4 Work books 4.5 Learning manuals

Assessment Evidence Guide:

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified team goals and work processes 1.2 Communicated and cooperated with team members. 1.3 Worked as a team member 1.4 Solved problems as a team member
2. Methods of Assessment	Methods of assessment may include but not limited to: 2.1 Written test 2.2 Demonstration 2.3 Oral questioning 2.4 Interview
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

B: Sector Specific (Common) Competencies

Unit of Competency: **OPERATE A PERSONAL COMPUTER AND USE OFFICE APPLICATIONS**	**Nominal Duration:** 24 Hrs.	**Unit Code:** SEIP-IT-WDP-1-S
Unit Descriptor: This unit covers the knowledge, skills and attitudes required for a worker to operate a personal computer and use office applications. It specifically includes the tasks of starting and shutting down the computer, accessing basic system information, working with files and folders and user application programs and printing documents.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Start and shut down the computer	1.1 **Peripheral devices** are checked for correct connection, position and usability. 1.2 Input **electrical parameters** of the device are Checked in accordance with peripheral device specification. 1.3 Power of computer and other peripheral devices are Switched on. 1.4 All open **applications programs** are logged out in accordance with standard application procedure. 1.5 All open files/documents are exited. 1.6 Personal computer is shut down in accordance with standard shut off procedure. 1.7 The computer and other peripherals are switched off and unplugged power supply in accordance with standard procedure.
2. Access basic system information	2.1 User name and password as prompted and note access, privacy, security and related conditions of use displayed on introductory screens are Inserted. 2.2 PC desktop environment/**Graphical User Interface (GUI)** settings is arranged and customized. 2.3 The **operating system** information is identified. 2.4 System configuration and application versions in operation are navigated. 2.5 On-line help functions are used as required.
3. Work with files, folders and user application programs	3.1 Desktop environment is navigated and manipulated. 3.2 Desktop icons are selected, opened and closed to access application programs. 3.3 Application windows and return to desktop original condition are manipulated. 3.4 Basic directory and sub-directories are created and named. 3.5 Attributes of directories are identified. 3.6 Files for user and organization requirements are created and organized 3.7 Data are entered into the desired office application in accordance with work requirements

	3.8 Files are copied and saved to available **data storage**/disk drives
4. Print documents	4.1 **Printer settings**, if required, are entered into the program 4.2 Default printer is changed where necessary 4.3 Print command is entered to effect printing of documents 4.4 Adjust document print output where necessary

Range of Variables

Variable	**Range** (Includes but not limited to :)
1. Peripheral devices	1.1 Input Devices 1.1.1 keyboard , MIDI keyboard 1.1.2 mouse 1.1.3 touch screen 1.1.4 pen tablet 1.1.5 joystick 1.1.6 scanner 1.1.7 digital camera 1.1.8 video camera 1.1.9 microphone 1.2 Output Devices 1.2.1 monitor 1.2.2 projector 1.2.3 TV screen 1.2.4 printer 1.2.5 plotter 1.2.6 speakers 1.3 Both input/output 1.3.1 external hard drives 1.3.2 USB drives 1.3.3 media card readers 1.3.4 digital camcorders 1.3.5 digital mixers 1.3.6 MIDI equipment
2. Electrical parameters	2.1 Voltage 2.1.1 AC volts 2.1.2 DC volts 2.2 Current (Ampere) 2.3 Phase 2.4 Cycle
3. Applications programs	3.1 Office programs 3.2 Database programs 3.3 Word processors 3.4 Email programs 3.5 Internet browsers 3.6 System browsers 3.7 Spreadsheets
4. Graphical User Interface (GUI)	4.1 Desktop 4.2 Pointer 4.3 Icons

	4.4 Menus 4.5 Dialog boxes 4.6 Scroll bars 4.7 Toolbars 4.8 Folders 4.9 Wall papers 4.10 Widgets
5. Operating system	5.1 Microsoft Windows 5.2 Apple Mac OS 5.3 Ubuntu Linux 5.4 Google android 5.5 iOS
6. Data storage	6.1 Random Access Memory (RAM) 6.2 Floppy disk 6.3 Hard disk 6.4 CD disk 6.5 DVD disk 6.6 Flash drive 6.7 External hard disk
7. Printer settings	7.1 Default Printer Brand and model 7.2 Pages 7.3 Printing sides 7.4 Collate 7.5 Page orientation 7.6 Paper size 7.7 Margins 7.8 Number of pages per sheet

Curricular Content Guide

1. Underpinning Knowledge	1.1 Basic software operation 1.2 Methods and procedure of checking input electrical parameters 1.3 Steps/procedure n switching on the power of computer and other peripheral devices 1.4 Computer functions 1.5 Basic parts of a computer and various hardware components 1.6 Organizational benchmarks for minimum typing skills, including speed and accuracy 1.7 Creating and opening documents 1.8 Formatting documents 1.9 Inserting tables and images 1.10 Saving, printing and closing documents 1.11 Mail merge function 1.12 Basic keyboarding skills 1.13 Storage devices and basic categories 1.14 Exiting procedure for open files/documents 1.15 Methods and procedure in witching on and off the computer and other peripherals

	1.16 Selection, opening and closing procedures of desktop icons to access application programs 1.17 Method of creating and organizing files for user and organization requirements 1.18 Data inputting techniques in accordance with standard typing procedure and office application 1.19 Printing procedure and commands
2. Underpinning Skills	2.1 Checking input electrical parameters of the device in accordance with peripheral device specification. 2.2 Switching on power of computer and other peripheral devices 2.3 Exiting all open files/documents 2.4 Switching off the computer and other peripherals and unplugging power supply in accordance with standard procedure 2.5 Arranging, customizing and manipulating PC desktop environment/graphical user interface (GUI) settings 2.6 Selecting, opening and closing desktop icons to access application programs 2.7 Creating and organizing Files for user and organization requirements 2.8 Entering data into the desired office application in accordance with work requirements 2.9 Entering print command to effect printing of documents
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Patience 3.3 Orderliness 3.4 Observance to OHS requirements
4. Resource Implications	1.1 Workplace (simulated or actual) 1.2 Personal Computer and peripherals 1.3 Software 1.4 Pens 1.5 Papers 1.6 Work sheets

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Checked input electrical parameters of the device in accordance with peripheral device specification. 1.2 Switched on power of computer and other peripheral devices. 1.3 Exitedall open files/documents. 1.4 Switched off the computer and other peripherals and unplugged power supply in accordance with standard procedure. 1.5 Arranged, customized and manipulated PC desktop environment/graphical user interface (GUI) settings. 1.6 Selected, opened and closed desktop icons to access application programs

	1.7 Created and organized files for user and organization requirements. 1.8 Entered data into the desired office application in accordance with work requirements 1.9 Entered print command to effect printing of documents
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module

Unit of Competency: **TYPE DOCUMENTS IN BANGLA AND ENGLISH**	**Nominal Duration:** 12 hrs.	**Unit Code:** SEIP-IT-WDP-2-S
Unit Descriptor: This unit covers the skills, knowledge and attitudes required of a worker to type documents in Bangla and English. It specifically includes the tasks of installing the application, selecting appropriate tools and keyboard layout, typing document using different style format in both Bangla and English.		

Elements and Performance Criteria:

(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Install the application	1.1 Specialized utilities for typing Bangla and English are installed and available.
2. Select appropriate tools and keyboard layout	2.1 Appropriate tools are selected for typing. 2.2 Appropriate **keyboard layout** is selected.
3. Type document using different style format	3.1 Document content is typed with different format. 3.2 Document is typed at a minimum speed in English and in Bangla in accordance with workplace requirements.

Range of Variables

Variable	**Range** (Includes but not limited to :)
1. keyboard layout	1.1 QWERTY 1.2 Munir 1.3 Bijoy 1.4 Unijoy 1.5 Phonetics 1.6 Inscript 1.7 Avro

Curricular Content Guide

1. Underpinning Knowledge	1.1 Procedure for Installing specialized utilities on the computer 1.2 Selection of tools used for typing 1.3 Types of keyboard layout 1.4 Techniques and procedure of Typing 1.5 Standard typing speeds
2. Underpinning Skills	2.1 Installing specialized utilities for typing Bangla and English 2.2 Selecting appropriate tools for typing 2.3 Selecting appropriate keyboard layout 2.4 Typing document at a minimum speed of 40wpm in English and 30wpm in Bangla
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals

	3.4 Orderliness
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Software 4.4 Pens 4.5 Papers 4.6 Work sheets

Assessment Evidence Guide

5. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Installed specialized utilities for typing Bangla and English. 1.2 Selected appropriate tools for typing. 1.3 Selected appropriate keyboard layout. 1.4 Typed document content. 1.5 Typed document at a minimum speed of 40wpm in English and 30wpm in Bangla.
6. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
7. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **SEND AND RETRIEVE INFORMATION USING EMAIL, WEB BROWSERS, VIDEO/AUDIO TOOLS**	**Nominal Duration:** 16 Hrs.	**Unit Code:** SEIP-IT-WDP-3-S
Unit Descriptor: This unit covers the skills, knowledge and attitudes required of a worker to send and retrieve information using e-mail, web browsers and video/audio tools. It specifically includes the tasks of accessing the internet, searching in the internet, researching and applying 'netiquette' principals and organizing and sending messages.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are elaborated in the range of variables).

Elements of Competency	Performance Criteria
1. Access the internet	1.1 **Internet browser** is opened and a home page is set.
2. Search the internet	2.1 **Search engine** is located and selected. 2.2 Search engine is used to search for information.
3. Research and apply 'netiquette' principals	3.1 Netiquette' (or web etiquette) principles are applied when working with emails and browsing. 3.2 Rules of **good online manners** from at least two **netiquette sites** are reviewed.
4. Organize and send message	4.1 Email application package is used to create a new Email. 4.2 Email message is sent. 4.3 Email messages are replied to and forwarded as appropriate, using the carbon copy and forward features. 4.4 Attachment and/or email is opened and saved to relevant folders. 4.5 Email message is deleted as required. 4.6 Inbox is sorted according to sender's name and date received.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. Internet browser	1.1 Microsoft Internet 1.2 Mozilla Firefox 1.3 Google chrome 1.4 AOL explorer 1.5 Apple safari 1.6 Opera 1.7 Rockmelt 1.8 Maxthon 1.9 Deepnet explorer
2. Search engine	2.1 Google 2.2 Bing 2.3 Yahoo search 2.4 Ask

	2.5 Aol Search 2.6 Wow 2.7 Webcrawler 2.8 Infospace 2.9 Info 2.10 DuckDuckGo 2.11 Dogpile 2.12 Ahea 2.13 ixQuick
3. Good online manners/netiquette	3.1 Respecting others opinions 3.2 Tone down your language 3.3 Picking the right tone 3.4 Keeping a straight face 3.5 Considering others' privacy 3.6 Avoiding inappropriate material 3.7 Be forgiving 3.8 Thinking before hitting the send button 3.9 Testing for clarity 3.10 Conciseness is best 3.11 Sticking to the point 3.12 Thoughtless email 3.13 Read first, write later 3.14 Netspeak (DO NOT TYPE IN ALL CAPS)

Curricular Content Guide

1. Underpinning Knowledge	1.1 Procedure for opening internet browser and setting a home page 1.2 Method of Locating and selecting search engine 1.3 Procedure for searching for information Using search engine 1.4 Principles of netiquette' or web etiquette 1.5 Procedure for Replying to received email messages and forwarding 1.6 Steps in opening attachment and saving to relevant folders
2. Underpinning Skills	2.1 Opening internet browser and setting a home page 2.2 Locating and selecting search engine 2.3 Using search engine to search for information 2.4 Applying netiquette' (or web etiquette) principles when working with emails and browsing 2.5 Replying to received email messages and forwarding as appropriate, using the carbon copy and forward features 2.6 Sending Email message 2.7 Opening and saving attachment and/or email to relevant folders
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette

4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Software 4.4 Pens 4.5 Papers 4.6 Work sheets

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Opened internet browser and set as a home page. 1.2 Located and selected search engine. 1.3 Used search engine to search for information. 1.4 Applied netiquette' (or web etiquette) principles when working with emails and browsing. 1.5 Replied to Email messages and forwarded as appropriate, using the carbon copy and forward features. 1.6 Sent Email message. 1.7 Opened and saved attachment and/or email to relevant folders.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **COMPLY TO ETHICAL STANDARDS IN IT WORKPLACE**	**Nominal Duration:** 12 Hrs.	**Unit Code:** SEIP-IT-WDP-4-S
Unit Descriptor: This unit covers the skills, knowledge and attitudes required of a worker to comply to ethical standards in it workplace. It specifically includes the tasks of upholding the interests of clients, delivering quality products and services, demonstrating professionalism at work and obeying workplace code of conduct.		

Elements and Performance Criteria:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Uphold the interests of clients	1.1 **Customers/clients** views are respected at all times. 1.2 Confidentiality of information is upheld in accordance with organizational policies, **national legislation** and workplace policies. 1.3 Potential conflicts of interest are identified and involved parties of potential conflicts are notified. 1.4 Proprietary rights of client/customer is asserted.
2. Deliver quality products and services	2.1 Products and services are provided that match the operational and financial needs of clients. 2.2 Work is completed to industry and international standards. 2.3 Quality processes are implemented when developing products and services.
3. Demonstrate professionalism at work	3.1 **Work processes** are delivered effectively and efficiently within known **standards.** 3.2 Skills, knowledge and qualifications are presented in a professional manner. 3.3 Services and products developed by self and others are correctly delivered. 3.4 Unbiased and objective information are provided to clients. 3.5 Realistic estimates for time, cost and delivery of outputs are presented during negotiation.
4. Obey workplace code of conduct.	4.1 Workplace code of conduct is followed.

Range of Variables

Variable	**Range** (Includes but not limited to:)
1. Customers/clients	1.1 Interdepartmental offices 1.2 External establishments 1.3 Individual customers 1.4 Co-employees 1.5 Contractual workers 1.6 Trainees/apprentices 1.7 Department heads 1.8 Superiors

	1.9 Employer and internal employees.
2. National legislation	2.1 Occupational Health and Safety Requirements 2.2 Industry/ sectoral code of ethics 2.3 International and national guidelines for consumer protection 2.4 International and national copyright laws 2.5 Intellectual property rights law 2.6 Legal and regulatory policies in the information technology sector
3. Work processes	3.1 Encoding 3.2 Printing 3.3 Web designing 3.4 Graphic designing 3.5 Technical support 3.6 Business system analysis 3.7 Data base administration
4. Standards	4.1 ISO standards 4.2 IEC standards 4.3 AS standards 4.4 DIN standards 4.5 Bangladesh standards

Curricular Content Guide

1. Underpinning Knowledge	1.1 Corporate code of confidentiality of information 1.2 organizational policies, national legislation and workplace policies in relation to IT sector 1.3 Law and regulations pertaining to proprietary rights 1.4 International standards related to Information Technology 1.5 Quality processes for products and services 1.6 Procedure of provided to client information 1.7 Method of estimating for time, cost and delivery products and services 1.8 Workplace code of conduct in IT sector
2. Underpinning Skills	2.1 Upholding confidentiality of information in accordance with organizational policies, national legislation and workplace policies 2.2 Asserting proprietary rights of client/customer 2.3 Completing work in accordance with industry and international standards 2.4 Implementing quality processes when developing products and services 2.5 Delivering correctly services and products developed by self and others 2.6 Providing unbiased and objective information are to clients. 2.7 Presenting realistic estimates for time, cost and delivery of outputs during negotiation 2.8 Following workplace code of conduct
3. Underpinning Attitudes	3.1 Eagerness to learn

	3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Software 4.4 Pens 4.5 Papers 4.6 Work sheets

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Upheld confidentiality of information in accordance with organizational policies, national legislation and workplace policies. 1.2 Asserted proprietary rights of client/customer. 1.3 Completed work to industry and international standards. 1.4 Implemented quality processes when developing products and services. 1.5 Delivered services and products developed by self and others. 1.6 Provided unbiased and objective information to clients. 1.7 Presented realistic estimates for time, cost and delivery of outputs during negotiation. 1.8 Followed workplace code of conduct.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

C: Occupation Specific (Core) Competencies

Unit of Competency: **EXPLAIN THE WEB**	**Nominal Duration:** 10Hrs.	**Unit Code:** SEIP-IT-WDP-1-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to explain the web. It specifically includes the tasks of identifying client server architecture/structure, understanding browser& web design tools, explaining role of web server & database server and also explaining the role of Local Web server.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Identify client server architecture	1.1 Client server architecture/structure is identified. 1.2 Different types of **network** and their functionality is identified. 1.3 Different type of **websites** are categorized.
2. Explain the operation of the web	2.1 Operation of the web is explained. 2.2 Different types of **web browser** is identified. 2.3 Installation and usage of different web browsers are described. 2.4 Features/options of different web browsers is recognized. 2.5 Cross browser compatibility of websites is explained. 2.6 Tools of web working are identified.
3. Use web design tools	3.1 Web design language is identified. 3.2 Web design platform is used. 3.3 Web design **software** is used.
4. Explain role of web server	4.1 Web server is identified. 4.2 Role of web server is explained. 4.3 Local web server is identified.
5. Explain role of database server	5.1 Database server is defined. 5.2 Roles of database server are identified. 5.3 Role of database server is explained.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. Network	1.1 Personal Area Network 1.2 Local Area Network 1.3 Campus Area Network 1.4 Metropolitan Area network 1.5 Wide Area Network 1.6 Virtual Private Network
2. Websites	2.1 Personal websites 2.2 Information websites 2.3 Web portals

	2.4 Webmail 2.5 Social networking websites 2.6 Blogs 2.7 Forums 2.8 Wiki websites 2.9 Search engines 2.10 Community websites 2.11 News websites
3. Web browser	3.1 Internet explorer 3.2 Mozilla Firefox 3.3 Google Chrome 3.4 Safari 3.5 Opera 3.6 Netscape 3.7 Lynx
4. Software	4.1 Adobe Photoshop 4.2 Adobe Illustrator 4.3 Macromedia Dreamweaver 4.4 Microsoft FrontPage 4.5 Microsoft Publisher 4.6 Adobe Flash

Curricular Content Guide

1. Underpinning Knowledge	1.1 Understanding web browser 1.2 Different types of web browser 1.3 Features/options of different web browsers 1.4 Web design language 1.5 Means of identifying web server 1.6 Roles of web server 1.7 Database server 1.8 Roles of database server 1.9 Local web server
2. Underpinning Skills	2.1 Identifying client server structure 2.2 Identifying different types of network and their functionality. 2.3 Categorizing different types of websites 2.4 Explaining operation of the web 2.5 Describing the installation and usage of different web browsers. 2.6 Recognizing features/options of different web browsers 2.7 Explaining cross browser compatibility of websites 2.8 Identifying tools of web working 2.9 Identifying web design language 2.10 Using web design software 2.11 Explaining role of web server 2.12 Identifying local web server
1. Underpinning Attitudes	1.1 Eagerness to learn 1.2 Tidiness and timeliness

	1.3 Concern to proper use computer and peripherals 1.4 Orderliness 1.5 Observing netiquette
2. Resource Implications	2.1 Workplace (simulated or actual) 2.2 Personal Computer and peripherals 2.3 Software (System and Application) 2.4 Internet 2.5 Pens 2.6 Papers

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Identified client server architecture 1.2 Explained the operation of the web 1.3 Used web design tools 1.4 Explained role of web server 1.5 Explained role of database server
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **SETUP DEVELOPMENT ENVIRONMENT**	**Nominal Duration:** 10Hrs.	**Unit Code:** SEIP-IT-WDP-2-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to setup development environment. It specifically includes the tasks of installing local web server, also installing FTP clients and working with the tools of web server.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Install web server	1.1 Tools and OS platform is installed. 1.2 **Local web server** is installed. 1.3 Local web server is identified. 1.4 Local Web server is started to test website performance. 1.5 Database server is installed. 1.6 PHP is installed on any OS.
2. Work using tools of web server	2.1 Debugger is defined. 2.2 IDE (integrated development environment), debugger, source control, source code is used.
3. Install FTP clients	3.1 FTP (file transfer protocol) client is Installed. 3.2 FTP client is identified. 3.3 FTP clients is used to upload or move files to web server.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. Local Web server	1.1 XAMPP 1.2 WAMP 1.3 LAMP

Curricular Content Guide

1. Underpinning Knowledge	1.1 Tools and OS Platform 1.2 Procedure of installation of Local web server 1.3 Means of identifying a Local web server 1.4 Starting procedure of Local Web server 1.5 Database server is installed 1.6 PHP is installed on any OS 1.7 Testing website performance 1.8 Definition of debugger, FTP client 1.9 Local Web server is understood.
2. Underpinning Skills	2.1 Installing Tools and OS Platform 2.2 Installing local web server 2.3 Identifying local web server 2.4 Starting local web server to test website performance.

	2.5 Installing database server 2.6 Installing PHP on any OS 2.7 defining debugger 2.8 Using IDE (integrated development environment), debugger, source control, source code 2.9 Installing FTP (file transfer protocol) client 2.10 Identifying FTP client 2.11 Using FTP clients to upload or move files to web server
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server, FTP clients 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspects of competency	Assessment required evidence that the candidate: 1.1 Installed Web server 1.2 Test website performance using Local Web server 1.3 Installed database server 1.4 Install PHP on any OS 1.5 Worked using tools of web server 1.6 Installed FTP client 1.7 Used FTP clients to upload or move files to web server
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **EXPLAIN PHP BASICS**	**Nominal Duration:** 30 Hrs.	**Unit Code:** SEIP-IT-WDP-3-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to explain PHP basics. It specifically includes the tasks of identifying basic PHP language, working with PHP and creating an application.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Explain basic PHP language	1.1 The **PHP basic** is explained. 1.2 Dynamic website using PHP is created. 1.3 Running a program in PHP environment is explained. 1.4 **Array mechanism** for keeping a series of data in computer memory is explained. 1.5 Anatomy of a PHP program and PHP Storm IDE is explained. 1.6 **File management** system is used. 1.7 Loop is used. 1.8 PHP echo and print statements is recognized.
2. Work with PHP	2.1 MySQL database is created. 2.2 connecting with HTML is carried-out. 2.3 **SQL in database** is identified. 2.4 **Library functions** / built in functions of PHP is performed. 2.5 **PHP form** is made.
3. Create an application	3.1 An application is made to input different data in a range. 3.2 An application is created to enter so many name and to sort these name. 3.3 Application is created to keep persons' name in a file. 3.4 Username and password is made in the applications. 3.5 Maximum security is made on application. 3.6 The application is operated as necessary. 3.7 The application is updated.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. PHP basic	1.1 Installation 1.2 Basic Syntax 1.3 Variable 1.4 Echo/print 1.5 Data type 1.6 Operator 1.7 Function 1.8 Strings 1.9 Constants

	1.10 Switch
2. Array mechanism	2.1 Define 2.2 Access 2.3 Type 2.4 Sorting 2.5 Array Functions 2.6 For each Loop 2.7 If..else..Else if 2.8 While loop 2.9 For loop
3. File management	3.1 Read a File 3.2 Write a File 3.3 Display File 3.4 Update a File 3.5 Delete a File 3.6 File uploading 3.7 Image processing 3.8 File Functions
4. SQL in database	4.1 MySQL create Table 4.2 MySQL Insert Data 4.3 MySQL Get last ID 4.4 MySQL Insert Multiple 4.5 MySQL Prepared 4.6 MySQL select data 4.7 MySQL delete data 4.8 MySQL update data 4.9 MySQL limit data
5. Library functions	5.1 PChart 5.2 PHP CAPTCHA 5.3 Dispatch 5.4 Services_JSON 5.5 phpAES 5.6 ImageWorkshop 5.7 Mink 5.8 PHP Thumbnailer 5.9 Hoa 5.10 PHP Text to Image 5.11 Faker 5.12 PHP Image Upload Class 5.13 Ratchet 5.14 PHP Export XLS Class 5.15 Php Documenter 5.16 PHP DB Class 5.17 Date and time . 5.18 Cookies 5.19 Sessions. 5.20 Filters. 5.21 Filters advanced.
6. PHP Form	6.1 Form Handling 6.2 Form Validation 6.3 Form Required

	6.4 Form URL/E-MAIL. 6.5 Form complete

Curricular Content Guide

1. Underpinning Knowledge	1.1 PHP basic 1.2 Procedure of creating Dynamic website PHP 1.3 PHP environment 1.4 Array mechanism in computer memory 1.5 Anatomy of a PHP program and PHP Storm IDE 1.6 File management system 1.7 PHP echo and print statements 1.8 My SQL database 1.9 HTML connecting procedure 1.10 SQL in database 1.11 Library and built in functions of PHP 1.12 Method of creating application to enter and to sort names 1.13 Making Username and password in applications 1.14 Making maximum security on application 1.15 Procedure of updating and operating the application
2. Underpinning Skills	2.1 Introducing the PHP basic 2.2 Creating dynamic website using PHP 2.3 Explaining the procedure of running a program in PHP environment 2.4 Explaining array mechanism for keeping a series of data in computer 2.5 explained anatomy of a PHP program and PHP Storm IDE 2.6 Using file management system 2.7 Using loop 2.8 Recognizing PHP echo and print statements 2.9 Creating My SQL database 2.10 Connecting with HTML 2.11 Identifying SQL in database 2.12 Performing library functions / built in functions of PHP 2.13 Making PHP form 2.14 Making an application to input different data in a range 2.15 Creating an application to enter so many name and to sort these name 2.16 Creating an application to keep persons' name in a file 2.17 Making username and password in the applications 2.18 Providing maximum security on application 2.19 Operating the application as necessary 2.20 The application is updated

3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.7 Different Operating Software, Local web server 4.3 Internet 4.4 Pens 4.5 Papers

Assessment Evidence Guide

1. Critical Aspect of Assessment	Assessment required Evidence that the candidate: 1.1 Explained PHP basic 1.2 Created dynamic website using PHP 1.3 Identified array mechanism for keeping a series of data in computer memory 1.4 Used file management system 1.5 Used Loop 1.6 Created MySQL database. 1.7 Identified the SQL in database.
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **EXPLAIN WEB CONCEPT**	**Nominal Duration:** 8Hrs.	**Unit Code:** SEIP-IT-WDP-4-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to explain web concept. It specifically includes the tasks of learning the basic of HTML works, working with web form and explaining get & post method.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written **in bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Work with basic HTML	1.1 **Basic HTML** is identified. 1.2 **Role of HTML** is explained.
2. Work with web Form	2.1 HTML Web Form is identified. 2.2 HTML Web Form is used.
3. Explain GET & POST method	3.1 GET &POST method is explained. 3.2 Information is sent to the web server using GET & POST method. 3.3 GET & POST method restriction is explained.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. Basic HTML	1.1 HTML Introduction 1.2 HTML Editors 1.3 HTML Attributes 1.4 HTML Headings 1.5 HTML Paragraphs 1.6 HTML Styles 1.7 HTML Formatting 1.8 HTML Quotations 1.9 HTML Comments 1.10 HTML Colors 1.11 HTML CSS 1.12 HTML Links 1.13 HTML Images 1.14 HTML Tables 1.15 HTML Lists 1.16 HTML Blocks 1.17 HTML Classes 1.18 HTML Layout 1.19 HTML Iframes 1.20 HTML Head 1.21 HTML Entities 1.22 HTML Symbols 1.23 HTML URL Encode
2. Role of HTML	2.1 Elements 2.2 HTML Editors 2.3 Attributes

	2.4 Headings 2.5 Paragraphs 2.6 Formatting 2.7 Links 2.8 Head 2.9 Images Tables 2.10 Lists 2.11 Block 2.12 Layout 2.13 Forms 2.14 IFrames 2.15 Colors 2.16 Entities 2.17 URL Encode 2.18 Form 2.19 Media 2.20 Object 2.21 Audio 2.22 Video

Curricular Content Guide

1. Underpinning Knowledge	1.1 Basic HTML 1.2 HTML Web Form 1.3 GET & POST method of sending information to the web server 1.4 GET & POST method restriction
2. Underpinning Skills	2.1 Understanding the basic HTML 2.2 Explaining the role of HTML 2.3 Understanding HTML Web Form 2.4 Using HTML Web Form 2.5 Understanding GET & POST method 2.6 Sending information to the web server using GET & POST method. 2.7 Explaining GET & POST method restriction
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspect of Assessment	Assessment required Evidence that the candidate: 1.1 Explained the Basic HTML 1.2 Explained the role of HTML 1.3 Identified HTML Web Form 1.4 Used HTML Web Form 1.5 Identified the GET & POST method 1.6 Information is send to the web server using GET & POST method. 1.7 GET & POST method restriction is explained.
2. Methods of Assessment	2.1 Competency should be assessed by: 2.2 Written examination 2.3 Demonstration 2.4 Oral questioning 2.5 Workplace observation 2.6 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **EXPLAINCLEAN CODE**	**Nominal Duration:** 12 Hrs.	**Unit Code:** SEIP-IT-WDP-5-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to explain clean code. It specifically includes the tasks of explaining clean code, learning coding style guide and applying error handling.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Explain clean Code	1.1 Clean code is defined. 1.2 Clean code variable is introduced. 1.3 Clean code function is named.
2. Learn coding style guide	2.1 Standard Coding Style Guide is explained.
3. Learn &apply on how to handle error	3.1 **Clean code error** is identified 3.2 The correction of clean code error is performed

Range of Variables

Variable	**Range** (Includes but not limited to:)
1. Clean code error	1.1 Debug_backtrace(Generates a backtrace 1.2 Debug_print_backtrace (Prints a backtrace) 1.3 Error_clear_last (Clear the most recent error) 1.4 Error_get_last (Get the last occurred error) 1.5 Error log (Send an error message to the defined error handling routines) 1.6 Error reporting (Sets which PHP errors are reported) 1.7 Restore_error_handler (Restores the previous error handler function) 1.8 Restore_exception_handler (Restores the previously defined exception handler function) 1.9 Set_error_handler (Sets a user-defined error handler function) 1.10 Set_exception_handler (Sets a user-defined exception handler function) 1.11 Trigger error (Generates a user-level error/warning/ notice message) 1.12 User error (Alias of trigger error)

Curricular Content Guide

1. Underpinning Knowledge	1.1 Clean code definition. 1.2 Clean code function 1.3 Standard Coding Style Guide 1.4 Clean code error 1.5 The correction of clean code error is performed
2. Underpinning Skills	2.1 Defining Clean code 2.2 Introducing Clean code variable

	2.3 Naming clean code function 2.4 Explaining standard coding style guide 2.5 Identifying the clean code error 2.6 Performing the correction of clean code error
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal computer and peripherals 4.3 Different operating software, local web server 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspect of Assessment	Assessment required Evidence that the candidate: 1.1 Defined clean code 1.2 Introduced clean code variable 1.3 Explained standard coding style guide 1.4 Explained the clean code error 1.5 Performed the correction of clean code error
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **CREATE SOFTWARE DEVELOPMENT LIFE CYCLE (SDLC)**	**Nominal Duration:** 20 Hrs.	**Unit Code:** SEIP-IT-WDP-6-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to develop software development life cycle **(SDLC).** It specifically includes the tasks of preparing a sequence diagram from user stories, preparing a schema diagram, preparing mock up and preparing user interface from the mockup using HTML/CSS.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Prepare a sequence diagram from user stories	1.1 The drawing sequence diagram is described. 1.2 A model is selected to enable the location field to store the diagram. 1.3 A model to store the diagram using a location field is selected.
2. Prepare a schema diagram	2.1 Procedure to create schema diagram is described. 2.2 Schema diagram is designed.
3. Prepare mock up	3.1 Mock up is prepared from user stories. 3.2 User interface is prepared by using mock up. 3.3 The design is made to stand out with beautiful high quality mock up. 3.4 Design is Placed into mobile screen making it realistic looking. 3.5 Mock up is presented.
4. Prepare user interface from the mockup using HTML / CSS	4.1 **HTML** for prototype is used. 4.2 **CSS** for prototype is used.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. HTML	1.1 Elements 1.2 HTML Editors 1.3 Attributes 1.4 Headings 1.5 Paragraphs 1.6 Formatting 1.7 Links 1.8 Head 1.9 Images Tables 1.10 Lists 1.11 Block 1.12 Layout 1.13 Forms 1.14 IFrames 1.15 Colors

	1.16 Entities 1.17 URL Encode 1.18 Form 1.19 Media 1.20 Object 1.21 Audio 1.22 Video	
2. Use of CSS	2.1 CSS Introduction 2.2 CSS Syntax 2.3 CSS Colors 2.4 CSS Color HEX 2.5 CSS Backgrounds 2.6 CSS Borders 2.7 CSS Margins 2.8 CSS Padding 2.9 CSS Height/ Width 2.10 CSS Text 2.11 CSS Fonts 2.12 CSS Links 2.13 CSS Lists 2.14 CSS Id & Class 2.15 CSS Dimension 2.16 CSS Tables 2.17 CSS Box model 2.18 CSS Outline	2.19 CSS Display 2.20 CSS Max-width 2.21 CSS Position 2.22 CSS Float 2.23 CSS Inline-block 2.24 CSS Align 2.25 CSS Navigation Bar 2.26 CSS Pseudo-class 2.27 CSS Pseudo-elements 2.28 CSS Combinatory 2.29 CSS Tool trips 2.30 CSS Attr selector 2.31 CSS Dropdowns 2.32 CSS Image gallery 2.33 CSS Image opacity 2.34 CSS Image sprites 2.35 CSS Forms 2.36 CSS Counters

Curricular Content Guide

1. Underpinning Knowledge	1.1 The drawing sequence diagram 1.2 The location field 1.3 Procedure to create schema diagram 1.4 Mock preparation 1.5 User interface preparation 1.6 Method of placing design into mobile screen 1.7 Mock up presentation 1.8 HTML for prototype 1.9 CSS for prototype
2. Underpinning Skills	2.1 Describing the drawing sequence diagram 2.2 Enabling the location field to select a model to store the diagram 2.3 Selecting a model to store the diagram using a location field 2.4 Describing a procedure to create schema diagram 2.5 Designing schema diagram 2.6 Mock up is from user stories 2.7 Preparing user interface by using mock up 2.8 Making the design to stand out with beautiful high quality mock up 2.9 Placing the design into mobile screen making, it

	realistic looking. 2.10 Presenting mock up 2.11 Using of HTML for prototype 2.12 Using of CSS for prototype
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspect of Assessment	Assessment required evidence that the candidate: 1.1 Selected to a model to store the diagram 1.2 Prepared mock up from user stories 1.3 Designed a schema diagram 1.4 Prepared user interface by using mock up 1.5 Made the design stand out with high quality mock up. 1.6 Designed into mobile screen giving a realistic looking. 1.7 Presented Mock up 1.8 Used of html for prototype 1.9 Used of CSS for prototype
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: EXPLAINOBJECT ORIENTED PROGRAMMING (OOP)	Nominal Duration: 25 Hrs.	Unit Code: SEIP-IT-WDP-7-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to explain object oriented programming (OOP). It specifically includes the tasks of Identifying class properties, constants and visibility, explaining encapsulation and explaining inheritance.		

Elements and Performance Criteria Template:

(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Identify class properties, constants and visibility	1.1 PHP **magic methods** is defined 1.2 Field, property and method inside a class is kept
2. Explain encapsulation	2.1 Encapsulation is described 2.2 Language mechanism is explained for restricting access to some of the object component 2.3 language constructionism explained that facilitates the bundling of data with the methods 2.4 **Association relationship** is defined 2.5 Association relationship between two classes is defined 2.6 Data and its functionality is encapsulated
3. Explain inheritance	3.1 The inheritance(object orienting programming) is explained 3.2 Types of inheritance is explained 3.3 Subclasses and super classes inheritance is defined 3.4 Essence of inheritance relationship is explained 3.5 Inheritance relationship between classes is created 3.6 Inheritance vs subtyping is defined

Range of Variables

Variable	**Range** (Includes but not limited to :)
1. Magic methods	1.1 __construct() 1.2 __destruct() 1.3 __call() 1.4 __callStatic() 1.5 __get() 1.6 __set() 1.7 __isset() 1.8 __unset() 1.9 __sleep() 1.10 __wakeup() 1.11 __to String() 1.12 __Invoke() 1.13 __Set_state() 1.14 __clone()

	1.15 __debug Info()
2. Association relationship	2.1 one-to-one 2.2 one-to-many

Curricular Content Guide

1. Underpinning Knowledge	1.1 PHP magic methods 1.2 Field, property and method inside a class 1.3 Encapsulation is described 1.4 Language mechanism for restricting access to some of the object component 1.5 language construction that facilitates the bundling of data with the methods 1.6 Association relationship 1.7 Association relationship between two classes 1.8 Data and its functionality 1.9 The inheritance(object orienting programming) 1.10 Types of inheritance 1.11 Subclasses and super classes inheritance 1.12 Essence of inheritance relationship 1.13 Inheritance relationship between classes 1.14 Inheritance vs sub typing
2. Underpinning Skills	2.1 Defining PHP magic methods 2.2 Keeping field, property and method inside a class 2.3 Describing encapsulation 2.4 Explaining language mechanism for restricting access to some of the object component 2.5 Explaining language construction that facilitates the bundling of data with the methods 2.6 Defining association relationship 2.7 Creating association relationship between two classes 2.8 Encapsulating data and its functionality 2.9 Explaining the inheritance(object orienting programming) 2.10 Explaining the types of inheritance 2.11 Defining subclasses and super classes inheritance 2.12 Explaining essence of inheritance relationship 2.13 Creating inheritance relationship between classes 2.14 defining Inheritance vs sub typing
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server 4.4 Internet 4.5 Pens

	4.6 Papers

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Defined PHP magic methods 1.2 Described the encapsulation 1.3 Explained The inheritance (object orienting programming) 1.4 Association relationship between two classes is defined 1.5 Explained language construction that facilitates the bundling of data with the methods 1.6 Data and its functionality is encapsulated 1.7 Defined Subclasses and super classes inheritance 1.8 Created inheritance relationship between classes
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **PERFORM WEB DEVELOPMENT WITH PHP USING OOP**	**Nominal Duration:** 20 Hrs.	**Unit Code:** SEIP-IT-WEB-8-O
Unit Descriptor: This unit covers the knowledge, skills and attitudes required of a worker to perform web development with PHPusing OOP. It specifically includes the tasks of understanding class and object, writing HTML for a website, using JavaScript in a website and implementing cascading style sheets (CSS) in a website.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Defined class and object	1.1 Class is defined. 1.2 Object is defined.
2. Write HTML for a website	2.1 HTML fundamentals and HTML foundations are presented. 2.2 Hypertext Mark-up Language (HTML) is written in a website. 2.3 **HTML concepts** are implemented. 2.4 **HTML Tags** is used in a HTML page.
3. Use JavaScript in a website	3.1 Client side scripting language is demonstrated. 3.2 JavaScript is implemented. 3.3 The basic Java scripting concepts such as **JavaScript Statements** is implemented.
4. Implement Cascading Style Sheets (CSS) in a website	4.1 Cascading Style Sheets (CSS) is applied. 4.2 the **basic concepts of CSS**is Implemented. 4.3 CSS usage **tools** is implemented.

Range of Variables

Variable	**Range** (Includes but not limited to):	
1. HTML concepts	1.1 Elements 1.2 HTML Editors 1.3 Attributes 1.4 Headings 1.5 Paragraphs 1.6 Formatting 1.7 Links 1.8 Head 1.9 Images Tables 1.10 Lists 1.11 Block	1.12 Layout 1.13 Forms 1.14 IFrames 1.15 Colours 1.16 Entities 1.17 URL Encode 1.18 Form 1.19 Media 1.20 Object 1.21 Audio 1.22 Video
2. HTML Tags	2.1 For heading 2.2 Paragraph 2.3 Break 2.4 Bold 2.5 Italics 2.6 Html lists	

3. JavaScript Statements	3.1 Objects 3.2 Output 3.3 Comments 3.4 Variables 3.5 Data Types 3.6 Functions 3.7 Operators 3.8 Comparisons 3.9 Conditions 3.10 Switch 3.11 For Loop 3.12 While Loop 3.13 Breaks 3.14 Errors 3.15 Validation	
4. Basic concepts of CSS	4.1 CSS Introduction 4.2 CSS Syntax 4.3 CSS Colors 4.4 CSS Color HEX 4.5 CSS Backgrounds 4.6 CSS Borders 4.7 CSS Margins 4.8 CSS Padding 4.9 CSS Height/ Width 4.10 CSS Text 4.11 CSS Fonts 4.12 CSS Links 4.13 CSS Lists 4.14 CSS Id & Class 4.15 CSS Dimension 4.16 CSS Tables 4.17 CSS Box model 4.18 CSS Outline	1.1 CSS Display 1.2 CSS Max-width 1.3 CSS Position 1.4 CSS Float 1.5 CSS Inline-block 1.6 CSS Align 1.7 CSS Navigation Bar 1.8 CSS Pseudo-class 1.9 CSS Pseudo-elements 1.10 CSS Combinators 1.11 CSS Tooltrips 1.12 CSS Attr selector 1.13 CSS Dropdowns 1.14 CSS Image gallery 1.15 CSS Image opacity 1.16 CSS Image sprites 1.17 CSS Forms 1.18 CSS Counters
5. Tools	5.1 Macromedia Dreamweaver 5.2 Microsoft FrontPage	

Curricular Content Guide

1. Underpinning Knowledge	1.1 Class definition 1.2 Object definition 1.3 Html fundamentals and html foundations 1.4 Hypertext mark-up language (html) 1.5 Implementation of html concepts 1.6 Use of html tags in html page 1.7 Client side scripting language 1.8 Procedure of implementing JavaScript 1.9 The basic java scripting concepts 1.10 Cascading style sheets (CSS) 1.11 The basic concepts of CSS

	1.12 CSS usage tools
2. Underpinning Skills	2.1 Defining class and object 2.2 PresentingHTML fundamentals and HTML foundations 2.3 Writing hypertext mark-up language (HTML) in a website 2.4 Implementing HTML concepts 2.5 Using HTML Tags in HTML page 2.6 Demonstrating Client side scripting language 2.7 Implementing JavaScript 2.8 Implementing The basic Java Scripting concepts such as JavaScript Statements 2.9 Applying Cascading Style Sheets (CSS) 2.10 Implementing the basic concepts of CSS 2.11 Implementing CSS usage tools
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal computer and peripherals 4.3 Different operating software, local web server 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Introduced html fundamentals & html foundations 1.2 Wrote hypertext mark-up language (html) of a website 1.3 Implemented html concepts 1.4 Used html tags in html page 1.5 Implemented JavaScript 1.6 Implemented the basic java scripting concepts such as JavaScript statements. 1.7 Applied cascading style sheets (CSS) 1.8 Implemented the basic concepts of CSS 1.9 Implemented CSS usage tools
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio

3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **WORK WITH A RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS)**	**Nominal Duration:** 25 Hrs.	**Unit Code:** SEIP-IT-WEB-9-O
Unit descriptor: This unit covers the knowledge, skills and attitudes required of a worker to work with a RDBMS (Relational Database Management System). It specifically includes the tasks of explaining the basics and historical perspectives of databases, defining Relational Database Management System (RDBMS) and working with database and identify join query.		

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Explain the Basics and historical perspectives of databases	1.1 **Basic database** concepts is defined. 1.2 Difference between free database and licensed database is identified. 1.3 Role of database in web applications is identified.
2. Define Relational Database Management System (RDBMS)	2.1 RDBMS is defined. 2.2 Different **database management systems** are installed. 2.3 Database and tables are created.
3. Work with database	3.1 CRUD operations (Create, Read, Update, and Delete) in database is performed. 3.2 Simple CRUD operations in PHP with MYSQL database is performed. 3.3 Importance of CRUD to create a database web application is explained. 3.4 PDO (PHP Data Object) is used to **operate data.**
4. Identify join query	4.1 Join query is made when 3 or more tables are involved(SQL). 4.2 Predicate is applied in the query execution engine. 4.3 The columns mentioned in the JOIN conditions, SELECT list or the ORDER BY list is selected out. 4.4 The final table that applies the ORDER BY is combined.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. Basic database	1.1 Row 1.2 Column 1.3 Table 1.4 Relationships 1.5 Quires 1.6 Normalization 1.7 Denormalization 1.8 Database 1.9 Relational Database 1.10 Management System

	1.11 Primary Key 1.12 Foreign Key 1.13 Indexing 1.14 Entity Relationship Diagram
2. Database management systems	2.1 Microsoft Access 2.2 Microsoft SQL Server 2.3 Microsoft SQL
3. Operate data	3.1 Insert 3.2 Update 3.3 Delete

Curricular Content Guide

1. Underpinning Knowledge	1.1 Basic database concepts 1.2 Difference between free database and licensed database 1.3 Importance of CRUD to create a database web application 1.4 Means of joining query work when three or more tables are involved(SQL) 1.5 Predicates that applies the query execution engine (WHERE clause) to the first table that doesn't involve any of the other tables 1.6 The columns mentioned in the JOIN conditions or the SELECT list or the ORDER BY list 1.7 The final table and application of the ORDER BY list
2. Underpinning Skills	2.1 Identifying the difference between free database and licensed database 2.2 Spelling out the role of database in web applications 2.3 Defining RDBMS 2.4 Installing Different database management systems 2.5 Creating Database and tables 2.6 Performing CRUD operations (Create, Read, Update, Delete) in database. 2.7 Performing simple CRUD operations in PHP with MySQL database is learned. 2.8 Operating data using PDO (PHP Data Object)
3. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
4. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server 4.4 Internet 4.5 Pens 4.6 Papers 4.7 Scanner 4.8 Printer

	4.9 Multimedia Projector 4.10 Microphone 4.11 Speakers

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Defined basic database concepts 1.2 Performed join query work when 3 or more tables are involved (SQL) 1.3 Identified the role of database in web applications 1.4 Defined RDBMS 1.5 Installed different database management systems 1.6 Created database and tables 1.7 Performed simple crud operations in PHP with MYSQL database 1.8 Operated data using PDO (PHP Data Object)
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

Unit of Competency: **CREATE DYNAMIC WEB APPLICATION**	**Nominal Duration:** 90 Hrs.	**Unit Code:** SEIP-IT-WEB-10-O

Unit Descriptor:
This unit covers the knowledge, skills and attitudes required of a worker to create dynamic web application. It specifically includes the tasks of developing a website using PHP, developing a website in PHP, preparing a project document, applying data sanitization for security, applying server side validation and uploading and downloading files, applying pagination, using client side validation, applying ajax and performing search / filter data.

Elements and Performance Criteria Template:
(Terms in the performance criteria that are written in **bold and underlined** are described in the range of variables).

Elements of Competency	Performance Criteria
1. Develop a website using PHP	1.1 PHP is applied. 1.2 **PHP Editor** is installed 1.3 PHP Environment and Syntax is employed. 1.4 **PHP tools** are implemented. 1.5 MySQL database with a PHP website is Installed and configured. 1.6 Dynamic web pages in PHP is created.
2. Develop a website in PHP	2.1 Interface of a website in a web designing software is designed. 2.2 Static or dynamic website in a web development software is developed. 2.3 Software Development Life Cycle (SDLC) phases in a web project is implemented.
3. Prepare a project document	3.1 A project including some **documents** is created. 3.2 UI layout of the document is made.
4. Apply data sanitization for security	4.1 Data security for computer professional is described. 4.2 Overall data storage security protection at different levels and locations are installed. 4.3 Data and crypto keys during transport is protected. 4.4 Data sanitization is driven. 4.5 Erasure of user data for drive disposal or reuse is secured.
5. Apply server side validation	5.1 Server side programmingis developed. 5.2 User management in PHP application is applied.
6. Upload and download files	6.1 Image and files in all common format is uploaded to use in website. 6.2 The uploaded files and image is linked to a clickable button on the page. 6.3 Uploaded files in Shopify website is inserted.
7. Apply pagination	7.1 Pagination is added in a website with multiple pages. 7.2 **Basic pagination** is created.
8. Use Client side validation	8.1 Client side **validation** is used.
9. Apply Drupal's Ajax framework	9.1 Drupal's Ajax framework is used to dynamically update parts of HTML based on data from the server. 9.2 PHP macro language is created to instruct JavaScript to perform actions on the client browser.
10. Perform search / filter	10.1 Auto filter is used.

data	10.2 Filtering data is demonstrated to find and work with a subset of data in a range of cells or table. 10.3 Filtered data are displayed.

Range of Variables

Variable	**Range** (Includes but not limited to):
1. PHP Editor	1.1 Macromedia Dreamweaver 1.2 Microsoft FrontPage
2. PHP tools	2.1 PHP Variable Types 2.2 PHP Constants 2.3 Operator Types 2.4 PHP Decision Making 2.5 PHP Loop Types 2.6 PHP Arrays 2.7 PHP Strings 2.8 PHP GET and POSTPHP Files 2.9 PHP Functions 2.10 PHP Cookies and Sessions 2.11 PHP Sending Emails 2.12 PHP File Uploading 2.13 PHP Coding Standard 2.14 PHP Predefined Variables 2.15 PHP Regular Expressions 2.16 PHP Error Handling 2.17 PHP Built-in Functions
3. Documents	3.1 Analysis document 3.2 Design document 3.3 Implementation document 3.4 Testing document 3.5 Deployment document 3.6 Maintenance and Support document 3.7 User Manual
4. Basic pagination	4.1 .pagination 4.2 .active 4.3 .disabled 4.4 .pagination-lg 4.5 .pagination-sm 4.6 .breadcrumb
5. Validation	5.1 Required Field Validation 5.2 Range Validation 5.3 Validation Summary

Curricular Content Guide

1. Underpinning Knowledge	1.1 Procedure on installing PHP Editor 1.2 Method of implement PHP tools 1.3 Install and configure MySQL database with a PHP website 1.4 Dynamic web pages in PHP

	1.5 Design interface of a website in a web designing software 1.6 Static or dynamic website in a web development software 1.7 Software development life cycle (SDLC) phases in a web project 1.8 UI layout of the documents. 1.9 Data security for computer professionals 1.10 Overall data storage security protection at different levels and locations 1.11 Data and crypto keys during transport 1.12 Data sanitization 1.13 Server side programming 1.14 User management in PHP application 1.15 Image and files in all common formats to use in website. 1.16 Uploading files in Shopify website. 1.17 Pagination in a website with lots of pages 10.4 Drupal's Ajax framework 10.5 PHP macro language
2. Underpinning Skills	1.1 Installing PHP Editor 1.2 Implementing PHP tools 1.3 Installing and configuring MySQL database with a PHP website 1.4 Creating dynamic web pages in PHP 1.5 Designing interface of a website in a web designing software 1.6 Developing a static or dynamic website in a web development software 1.7 Implementing software development life cycle (SDLC) phases in a web project 1.8 Creating a project including some documents 1.9 Making UI layout of the documents. 1.10 Protecting data and crypto keys during transport 1.11 Securing erasure of user data for drive disposal or reuse 1.12 Working with server side programming 1.13 Understanding user management in PHP application 1.14 Uploading image and files in all common formats to use in website. 1.15 Linking the uploaded files and image to a clickable button on the page. 1.16 Inserting uploaded files in Shopify website 1.17 Adding pagination to website with lots of pages. 1.18 Creating basic pagination 1.19 Demonstrating the validation controls 1.20 Using Drupal's Ajax framework to dynamically update parts of a page's HTML based on data from the server. 1.21 Creating PHP macro language to instruct JavaScript

	to perform actions on the client browser 1.22 Using auto filter 1.23 Demonstrating filtering data to find and work with a subset of data in a range of cells or table.
2. Underpinning Attitudes	3.1 Eagerness to learn 3.2 Tidiness and timeliness 3.3 Concern to proper use computer and peripherals 3.4 Orderliness 3.5 Observing netiquette
3. Resource Implications	4.1 Workplace (simulated or actual) 4.2 Personal Computer and peripherals 4.3 Different Operating Software, Local web server 4.4 Internet 4.5 Pens 4.6 Papers

Assessment Evidence Guide

1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 Developed a website using PHP 1.2 Developed a website in PHP 1.3 Prepared a project document 1.4 Applied data sanitization for security 1.5 Applied server side validation 1.6 Uploaded and downloaded files 1.7 Applied pagination 1.8 Used client side validation 1.9 Performed search / filter data
2. Methods of Assessment	Competency should be assessed by: 2.1 Written examination 2.2 Demonstration 2.3 Oral questioning 2.4 Workplace observation 2.5 Portfolio
3. Context of Assessment	3.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.

End of Competency Standard

Assessment Guide

A Framework for Effective Assessment

Web Application Development PHP

How to Use this Assessment Guide

- This Assessment Guide presents need-to-know information for Assessors and others who want to know more about the assessment process. A handy Table of Contents Guide on the next page shows you where to look.

- If you want the basics of assessment, its key terms and definitions, in a Question & Answer (Q&A) format, see Section One.

- If you want a knowledge of who does what, the key roles and responsibilities involved in assessment, see Section Two.

- If you want a “toolbox” of tools and templates, that you can select from depending on your assessment need, see Section Three.

- If you want to look at working samples of completed assessment tools, see the Appendices.

Table of Contents

Section One: Q&A linked to Key Terms & Definitions

1.25 Define the term “evidence gathering tools” giving examples
1.26 Define the term “portfolio.”
1.27 Outline a 6-step method for preparing an evidence plan.

1.28 Outline the steps (sequence of activities) involved in developing an assessment tool.
1.29 Describe the four dimensions of competency.

Section Two: Roles and Responsibilities

Page No.

Section Three: Tools and Templates

Page No.

Assessment Guide

Section One: Objectives linked to Key Terms & Definitions

Define assessment.

Assessment is a systematic process of collecting proof or evidence on whether or not a candidate has demonstrated competence in the performance of a work-related activity/task that is directly linked to a performance standard. The assessment confirms that the individual can perform to the standard expected in the workplace and/or the nationally approved competency standard.

Give an example of assessment.

A helpful example in this regard is the driving test. The driver must prove his competence to drive by demonstrating to the driving assessor his ability to do so. The driving assessor uses a checklist to assess the candidate and make the necessary recommendations, based on the evidence he has collected in observing the candidate's driving. S/He either records/recommends that the candidate is ***competent*** or ***not yet competent.***

What is the purpose of assessment?

The Purpose of Assessment is to confirm that a trainee can perform competently to the standards expected in the workplace.

What is Assessment based on?

- An effective Assessment is based on a Competency Standard.
- A Competency Standard describes the skills, knowledge, and attitudes needed to perform effectively in the workplace, not the classroom.

Define the term "competency."

Competency is the ability to do a task successfully. Aspects of competency include:

- The capacity to perform tasks to the required standard consistently
- The ability to respond to different needs in the workplace
- The ability to plan and integrate a variety of tasks to attain a work outcome

Describe what makes up a competency standard.

It must be noted that a competency standard is made up of individual units of competency that include elements of competency as well as the performance criteria needed to accomplish them.

Define the term "Assessment tool."

An assessment tool is, in effect, an evidence-gathering tool. It contains both the instrument used for the assessment and instructions for gathering evidence in the assessment process. As an assessment instrument it contains the context and conditions for the assessment; tasks to be administered to the learner; an outline of the evidence to be gathered for the learner; the criteria for judging the evidence; and the necessary housekeeping records for recording and reporting requirements.

Describe the difference between Conventional Testing & Competency Based Assessment.

Conventional Testing	CBT Assessment
• Emphasis on knowledge/memorization • Teachers/Training Providers have main role • Theory & practical Tests can become outdated • High cost & central control • Relatively inflexible	• Based on competency standards • Involve industry partners in crucial role • Assessment based on demonstration of work skills rather than classroom knowledge • Flexible delivery • Competencies widely recognized

	• Guidelines & Templates used

Describe briefly what makes up an assessment system.

An Assessment System must be understood as a well-coordinated set of documented policies and procedures, including assessment materials and tools, that ensure assessments are consistently valid, reliable, flexible, fair, and safe.

Define the purpose of the Assessor role.

The role of Assessor is the heart and soul of effective competency based assessment. Without this pivotal role, determining the competency of the trainee is mere guesswork.

Note:

- The Industry Assessor will be asked to provide specs and practical demonstration tests from his workplace that will provide the evidence for determining competency.
- The importance of this input cannot be overemphasized for it best matches and tests the required performance criteria from the Standard.

Describe the basic questions that an Assessor must ask when planning an Assessment.

Planning an Assessment: What Needs to Happen?

- Determine which Units of Competency need to be assessed?
- Determine what Assessment Methods will be used?
- Determine what evidence-based tools (specs) need to be developed by the Assessor to guide the assessment?
- Determine how long it will take?
- Determine when the assessment will occur?
- Determine where the assessment will take place?
- Determine how it will be recorded?

Give some Assessor Requirements/Competencies.

Requirements/Competencies of an Assessor-

- The ability to use assessment tools to gather evidence effectively is essential, adjusting the language where necessary to reflect the language/literacy/numeracy levels of the workplace and not to exceed them in order to ensure learner understanding. This will also entail an ability to respond to learner needs such as responding to learner disability.

- The skill to develop specifications and practical tests, based on performance criteria, that provide evidence of competency that will fast track the assessment process.
- The ability to clearly demonstrate current industry skills and competencies relevant to the Standard.

- The Assessor is selected/appointed by Industry to act as an Assessor because of his proven competencies.
- Knows what needs to be done to assess the performance criteria
- Demonstrates a high level of expertise in the technical area to be examined
- Can provide constructive feedback

Define the challenges of the Assessor Role.

Assessor Role: Challenges

- Needs to be objective and unbiased
- Must have interpersonal skills to relax nervous candidates or deal with those who are aggressive or emotional
- Must have ability to deal with those who have literacy problems or difficult dialect

Review some basic need-to-know elements concerning assessment.

Assessment Basics: Need to Know Elements

- Assessment to be conducted by Industry Assessor selected by industry
- Industry assessor must be familiar with units of competency outlined in the course standards
- Industry Assessor should drafts specs that reflect industry requirements for trainees and that are based on critical aspects of competency

- Industry assessor is responsible for making final judgment of **competent** or **not yet competent**
- Trainer will assist industry assessor
- Trainees must demonstrate competence based on the units of competency outlined in the standards
- All resources related to units of competency must be made available prior to the assessment event, e.g., tools, equipment, materials

Describe the trainer's role in the assessment process.

The Trainer acts as a primary resource for the Assessor and acts as a Facilitator.

Trainer ensures:

- All industry required tools, equipment, and materials are available for the assessment
- The training venue is booked and has sufficient space for demonstrations/tasks
- That all logistics such as admission slips, signature sheets, and records are readily available for distribution and collection
- That all teaching materials and Standard documents and Assessment tools are ready for the Assessor

Discuss the importance of principles of assessment and what is involved.

Principles of Assessment Table

Key Principles	Relevance/Meaning
Valid	Ensures assessment aligned with the Unit of Competency and is based on evidence that shows the learner can demonstrate skills and knowledge in other similar contexts (workplace)
Reliable	Evidence presented for assessment is consistently interpreted regardless of the Assessor
Flexible	Assesses competencies held by the learner regardless of where they have been acquired; reflects the individual learner's needs
Fair	The individual learner's needs or disability is considered in the assessment process; the learner is provided with information about the assessment process and given the opportunity to challenge the result of the assessment if warranted

Safe	The assessor has inspected the venue for assessment and determined that it is safe for all involved and that emergency evacuations are in place if needed

Define the term "evidence."

Evidence is information that is gathered and matched against a Unit of Competency to provide proof of competency.

State the different forms of evidence that can be collected.

Different forms of evidence that can be collected are-

- **Direct** such as demonstration test, or observation of Candidate
- **Indirect** such as Candidate's self-assessment or third party reports such as an employer interview

Describe and outline what is involved in "rules of evidence" and why they are important.

Rules of Evidence Table

Rules of Evidence	Meaning
Valid	The assessor is given assurance that the learner possesses the skills, knowledge, and attitudes described in the Unit of Competency and related assessment requirements
Sufficient	The assessor is assured that the quality, quantity, and relevance of the evidence is sufficient to enable a judgment to be made on the learner's competency
Authentic	The assessor is assured that the evidence provided for assessment is the learner's own work
Current	The assessor is assured that the assessment evidence demonstrates current competency of the learner. This evidence must be from the present or very recent past.

Describe the purpose of evidence gathering tools.

The Purpose of evidence gathering tools are-

- To help candidates understand what is expected of them
- To provide a focus for the assessment
- To identify what is needed to verify competency

State the use of the evidence guide.

The evidence guide provides useful advice on Unit of Competency assessment and must be read in conjunction with the performance criteria, required underpinning skills/knowledge/attitudes, range statement, and the critical aspects of competency for the Standard.

State why assessment evidence is important.

Evidence is the information gathered that provides proof that the performance criteria of a unit of competency has been met. Evidence can take many forms:

- **Observation:** watching the trainee perform
- **Questioning:** asking the trainee questions
- **Demonstration of specific skills:** seeing how the trainee performs a procedure or creates a final product
- **Examining** previous work the trainee has done

Describe the kinds of Assessment Methods that can be used for Evidence gathering purposes.

Various kinds of Assessment Methods can be used for Evidence gathering purposes. A wide range of assessment methods are available for Evidence- gathering purposes. Assessment methods are not limited to those listed below. The greater the range of assessment methods applied, the better the accuracy of the assessment.

Assessment Methods Table

Methods	Examples
Direct Observation of Candidate	Actual real-time activities in the workplace Work activities in a simulated workplace/training center
Questioning	Written questions; interviews; self-evaluation with questions; verbal questioning; questionnaires
Evidence compiled by Candidate	Portfolio; collection of work samples; products with supporting documentation; logbooks; information about life experience
Methods	Examples
Review of Product	Work samples and products; products as a result of a demonstration test/spec
Third Party Feedback	Reports/testimonials from Employers and Supervisors; evidence of training; interviews with Employers and Supervisors

Advice to the Assessor: use these methods and examples as a means of making your assessment valid, reliable, flexible, fair, and safe.

Define the term "evidence gathering tools" and give some examples of these tools.

Evidence gathering tools are the actual instruments that the Assessor uses to collect evidence. Evidence may be collected through:

- Demonstration of work activity
- Observation Checklist
- Question List
- Third party reports e.g. supervisor to verify consistent performance
- Review of candidate's portfolio

- Verifying the Candidate's capacity to deal with contingencies (unexpected things that come up)
- Written test

Define the term "portfolio."

A collection of evidence that may be presented by the Candidate to an Assessor to prove the Candidate's competence at a job or task.

What are some examples of Portfolio Evidence?

- Training results and certificates
- Training workbooks
- References from employers
- Job description and work experience
- Photos and videos
- Work journals
- Awards
- Work samples
- Letters and memos

Outline a 6-step method for preparing an evidence plan.

Steps in Preparing an Evidence Plan (Sequence of Steps to Follow)-

The Evidence Plan is the most important planning tool for an Assessor. A good evidence plan generates a list of the evidence that the Assessor must gather when conducting the assessment for a specific Unit of Competency. The following 6-Point Method for preparing an Evidence Plan provides a useful sequence of inter-related steps to follow:

1. Select Unit of Competency for assessment
2. Read full Unit of Competency
3. Identify evidence requirements based on:
    a. Elements and Performance Criteria
    b. Dimensions of Competence
    c. Underpinning skills knowledge
    d. Critical aspects of competency
4. Develop a list of evidence requirements
5. Identify best ways of collecting evidence (tools)
6. Document evidence plan

Outline the steps (sequence of activities) involved in developing an assessment tool.

Following are the steps (sequence of activities) involved in developing an assessment tool:

1. Select the Unit of Competency
2. Read the Unit of Competency
3. Identify the required evidence: critical aspects of competency
4. Identify the evidence gathering method
5. Complete the evidence plan
6. Select the appropriate template
7. Complete the template
8. Check the evidence gathering tools against the evidence plan and Unit of Competency
9. Check the tool with another Assessor for his opinion

Describe the four dimensions of competency.

Task Skills: the capacity to perform tasks in the workplace and demonstrate competence that meets the required Standard;

Task Management Skills: the ability to plan and integrate several tasks simultaneously that achieve a desired work outcome such as those skills involved in budgeting for a work operation, securing supplies and equipment for the work operation, completing the task in a timely, cost-effective manner, and ensuring safety practices are followed throughout;

Contingency Management Skills: the ability to respond to crises and breakdowns in the workplace, such as accidents and emergency situations that are unanticipated and require immediate action and resolution;

Job/Role Environment Skills: the capacity to own the responsibilities and expectations of the work environment that involves working with others effectively and participating in creating a work culture where all can contribute their best within the parameters of their job role

Assessment Guidelines

Section Two: Roles and Responsibilities

The Assessment System: Planning Guide for the Assessor

An Assessment System must be understood as a well-coordinated set of documented policies and procedures, including assessment materials and tools, that ensure assessments are consistently valid, reliable, flexible, fair, and safe.

Competency Assessment is a systematic process of collecting proof or evidence on whether or not a candidate has demonstrated competence in the performance of a work-related activity/task that is directly linked to a performance standard. The assessment confirms that the individual can perform to the standard expected in the workplace and/or the nationally approved competency standard.

Each **Unit of Competency** contained in a Standard describes a distinct part of a Mason's work and job profile. Within each Unit of Competency, the following components appear:

- Unit Title
- Unit Descriptor
- Elements of Competency
- Performance Criteria
- Range of Variables
- Evidence Guide

As a prelude to conducting assessments, the Assessor must be thoroughly familiar with all of the particulars and details of the Unit of Competency that is being assessed. This is a "must" for the role of the Assessor. He must be especially familiar with the Evidence Guide for gathering critical information.

The three sample assessment tools found below focus on the critical aspects of competency that can provide the required evidence to determine competency- the evidence guide. These sample assessment tools are as follows:

- Demonstration Checklist

- Observation Checklist
- Oral Questions Checklist

The duties of the Assessor include:

- Covering all of the key elements of the Unit of Competency under assessment
- Applying rigorously the Evidence Guide for the Unit of Competency as this contains the method and context of assessment, resources required for the assessment, the critical aspects of competency, and the required underpinning knowledge, skills, and attitudes
- Developing specifications (specs) for the task sheet for Demonstration as required
- Requiring the candidate to perform project tasks that cover interrelated units of competency- known as a “clustering.”
- Making what can be termed “reasonable adjustments” for candidates with disabilities or for example, those candidates with regional dialects that prove difficult to understand

Note: These “reasonable adjustments” may involve reconfiguring a simulated workplace site so that a candidate’s disability does not impede the assessment process, or for example, finding someone who can understand a regional dialect and assist the Assessor with essential communication skills.

Roles and Responsibilities of Assessor

Prior to any assessment, the Assessor should follow the specific instructions below to ensure a well-planned assessment event. In most cases s/he will be assisted by a Trainer. Nevertheless, s/he should make certain that good preparation has taken place for the assessment event.

1. Visit the assessment venue or workplace to ensure an adequate work area or platform containing:

- Sufficient space for working- ensure square meters of work space enough for task to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

2. Assessment is drawn and extracted from the relevant Unit of Competency based on an approved Standard and on an Evidence plan that clearly focuses on critical aspects of competency.

3. The duration of time to assess the demonstration is clearly indicated, for example, 3 hours. This information is shared with the Candidate along with other pertinent information such as the sequence of tasks that he must follow, and the fact that he will be closely observed as the tasks are performed.

4. After the Candidate has performed the task, the Assessor will provide feedback to the Candidate on his performance.

5. The responsibility on finally deciding whether or not the Candidate was Competent or Not Yet Competent belongs to the accredited Assessor.

6. At the conclusion of the assessment, the Assessor will provide feedback on whether or not the Candidate was Competent or Not Yet Competent. S/He will also share information on next steps. These next steps include where to obtain the certificate related to the assessment or, if unsuccessful, how to re-try for competency within a specified period of time.

Roles and Responsibilities of Trainer

Prior to the assessment, you will have studied and become familiar with the Competency Standard for the industry occupation. You will also have met with or contacted the Assessor beforehand and discussed preparations and arrangements for the assessment. Your role will be to facilitate the assessment process and ensure all necessary resources are available, assisting the Assessor wherever possible. For example, once a draft spec has been produced by the Assessor, you will ensure it is fully consistent with the evidence plan and copied appropriately for use by both the Assessor and Candidate.

In addition to a confirming a suitable training venue and time, you will ensure that:

- Sufficient space is allotted for task work- square meters of work space enough for demonstration tasks to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach if necessary
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

Your duties include:

- **notifying** the Assessor and candidates of planned assessment events and their location
- **advising and assisting** the Assessor on planned assessment events
- **collecting** admission slips and signature sheets for assessment events
- **ensuring** all required forms and reporting mechanisms are in place and ready for distribution to the Assessor and to the Candidate

- **ensuring** all requisite forms are duly signed and forwarded to the SEIP Office, or certifying body
- **responding** to candidate queries and concerns such as re-assessment procedures
- **reconfiguring** workplace simulations so that candidates with disabilities are able to participate fully and without impediment
- **working** closely with the SEIP contact to ensure a successful assessment event

Roles and Responsibilities of Candidate

Prior to the assessment, you will have studied and become familiar with the Competency Standard for your industry.

1. Initially, you will be given information on the task you are to perform, and the estimated time you will require to perform it. These tasks are based on the critical aspects of competency related to the performance criteria within the approved Competency Standard.

Given the necessary instructions, and/or a task-related spec and the necessary tools, materials, and equipment, you will carry out and complete a work task. You will observe that there is:

- Sufficient space for working- square meters of work space enough for task to be carried out effectively and safely
- Fire extinguisher and safety equipment within reach if necessary
- Emergency procedures in place
- All necessary tools, equipment, and materials ready at hand
- All necessary machinery in good working order

2. Assessment is drawn and extracted from the relevant Unit of Competency based on the approved Competency Standard and on an Evidence plan (proof of competence) developed by the Assessor that clearly focuses on critical aspects of competency. The Evidence plan will be based on critical assessment tools such as demonstration/task; observation; oral questions.

3. The duration of time to assess the demonstration should be clearly indicated, for example, 3 hours. This information will be given to you along with other pertinent information such as the procedure or sequence of tasks that you must follow. It is important to note that you will be closely observed and assessed throughout the duration of your demonstration. You will be given time to ask questions and request clarification. You will also be given 10 minutes to familiarize yourself with the resources to be used in the assessment.

4. Based on your performance in demonstrating the task, you will be assessed by the Assessor to be Competent or Not Yet Competent. Regardless of the result you will be given feedback from the Assessor on your performance and the next steps.

5. After you have performed the task, the Assessor will provide feedback to you on your performance.

6. The responsibility on finally deciding whether or not you are Competent or Not Yet Competent belongs to the accredited Assessor.

7. At the conclusion of the assessment, the Assessor will provide feedback on whether or not you have been assessed to be **Competent** or **Not Yet Competent**. Both your signatures will be required on the Assessment Form. You will also be allowed to make comments on the Assessor's decision. The Assessor will then share information on next steps. These next steps include where to obtain the certificate related to the successful assessment or, if unsuccessful, how to re-try for competency within a specified period of time.

Section Three: Tools and Templates

This toolbox of Tools and Templates offers a wide range of assessment tools that will facilitate evidence gathering and other assessment-related needs. Evidence gathering, however, should not be limited to these tools and templates alone. The toolbox should be revised or expanded as necessary, to include other tools and templates that are deemed relevant.

- Demonstration Checklist
- Observation Checklist
- Oral Questions Checklist
- Evidence Plan (Overall Summary)
- Assessor Job Sheet and Specifications (Spec) Form
- Competency Assessment Results
- Assessor Planning Checklist Tool
- All About Questioning Techniques for Use in Assessment
- Quick Guide to Conducting Competency Assessments
- Assessor’s Quick Start

Demonstration Checklist

Candidate's name:	
Assessor's name:	
Qualification:	
Project-Based Assessment Title	
Units of competency covered:	
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐
•	☐	☐	☐

Observation Checklist

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:			
Code:			
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist

Candidate's name:	
Assessor's name	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	
Reference Standard:	

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for competent/non yet competent.

List of Questions	Satisfactory Response	
Indicate Y or N in the box provided	YES	NO
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

Feedback to Candidate:

Candidate's overall performance was (circle):	Satisfactory	Not Satisfactory
The Candidate's underpinning knowledge was (circle):	Satisfactory	Not Satisfactory

Assessor Signature:	Date:
Candidate Signature:	Date:

EVIDENCE PLAN: Overall Summary

QUALIFICATION:	
Project-Based Assessment Title	
Units of competency covered	

Ways in which evidence will be collected: [tick the column] The evidence must show that the candidate …..	Observation with Questioning	Demonstration with Questioning	Written Examination	Portfolio
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				

Assessor Job Sheet and Specifications (Spec) Form

This Spec is in reference to the_____ Standard, and has been developed by an Industry Representative/Assessor.

The Result* indicates either C for Competent, or NYC for Not Yet Competent.

Unit of Competency	Elements Reviewed	Critical Aspects of Competency Covered	Result*: C/NYC

JOB #1 Procedure for Developing Specification (Spec): List the steps involved in performing the task/spec successfully. It will cover, in logical order, the critical aspects of competency listed above that will determine if the candidate is **Competent** or **Not Yet Competent.**

1.	
2.	
3.	
4.	
5.	

Tools and Equipment Required for Spec completion: List all tools, equipment, and materials required in completing Job #1:

Tools	Equipment	Materials

Assessor Name: Date:

Competency Assessment Results

Candidate's name:	
Assessor's name	
Qualification Title:	
Date of Assessment:	
Assessment Venue:	
Reference Standard:	
Unit of Competency:	

Assessment Unit	Competent	Not Yet Competent

Assessor's Recommendation and Comments:

Overall Assessment:

Yes: The Candidate successfully met the required evidence/standards and demonstrated all of the competencies necessary for certification in the Qualification and Units of Competency listed above.

No: The Candidate did not meet the evidence requirements. Re-assessment is recommended.

Assessor Signature:	Date:
Candidate Signature:	Date:
Assessment Center Manager Signature:	

ASSESSMENT PLANNING CHECKLIST TOOL

Assessor's name:	
Date:	

Directions: Circle the 'Yes' or 'No' response to each item.

1.	The Assessor is familiar with the unit(s) of competency being assessed	Yes	No
2.	The Assessor has verified that the workplace or training center has the correct equipment, machinery, tools, and materials necessary to complete all of the relevant aspects of the unit of competency	Yes	No
3.	The Assessor has ensured that all materials and equipment were assembled and arranged in advance.	Yes	No
4.	The Assessor has all the necessary tools, templates, and specifications needed to assess the trainee including a variety of assessment tools covering practical demonstration, observation, oral question, and (where necessary) written tests relevant to the competency specified in the standard	Yes	No
5.	The Assessor has met with the trainer prior to the assessment event to discuss his/her role.	Yes	No
6.	The Assessor will discuss the performance test with the trainee and address any concerns prior to giving the test	Yes	No
7.	The Assessor will discuss and record with the trainee the results of their performance	Yes	No

Action to be taken on "No" responses:

General Guidelines for Effective Questioning

- Keep questions short and focused on one key concept
- Ensure that questions are structured
- Test the questions to check that they are not ambiguous
- Use `open-ended questions such as `what if...?' and `why...?' questions, rather than closed questions
- Keep questions clear and straight forward and ask one at a time
- Use words that the candidate is able to understand
- Look at the candidate when asking questions
- Check to ensure that the candidate fully understands the questions
- Ask the candidate to clarify or re-phrase their answer if the assessor does not understand the initial response
- Confirm the candidate's response by repeating the answer back in his/her own words
- Encourage a conversational approach with the candidate when appropriate, to put him or her at ease
- Use questions or statements as prompts for keeping focused on the purpose of the questions and the kind of evidence being collected
- Use language at a suitable level for the candidate
- Listen carefully to the answers for opportunities to find unexpected evidence
- Follow up responses with further questions, if useful, to draw out more evidence or to make links between knowledge areas
- Compile a list of acceptable responses to ensure reliability of assessments

Recording responses

When using oral questioning, you may need a tool that has a structured approach (see below) and also enables you to record a candidate's responses. If the candidate's response is insufficient the assessor should record why on the recording sheet or checklist. This provides information that can be used later, if necessary, to explain to the candidate where he or she needs to develop their skills and/or knowledge to achieve the required competence.

Recording sheet for oral questioning (template)

Candidate's Name		
Assessor or Observer's Name		
Unit of Competency)		
Code		
Date of Assessment		
Location		
Task/Procedure		
Questions to be Answered by candidate	Response/Answer*	Satisfactory (Yes/No)
What would you do if …		
What would you do if …		
What would you do if …		
How do you …		
What are …		
Why did you… (Clarification)		
Follow up Questions		
The candidate's knowledge was:	Satisfactory Unsatisfactory	
Feedback to candidate:		
Candidate signature:	Date:	
Assessor/Observer's Signature:	Date:	

ASSESSOR GUIDE TO CONDUCTING COMPETENCY ASSESSMENTS

1. BEFORE THE ASSESSMENT	2. DAY OF ASSESSMENT	3. DURING THE ASSESSMENT	4. POST ASSESSMENT
- Review unit(s) of competency to be assessed especially evidence to be collected against performance criteria - Ensure the workplace or training center complies with all safety requirements and that high risk areas are clearly marked - Identify/request essential assessment resources: • tools and equipment • supplies and materials • personal protective equipment • print resources and rating sheets • Have trainees contacted if they have to bring any resources for the assessment, e.g. logbook	-Verify attendance through signed attendance sheet - Provide overview of what is to happen throughout day Orient the trainees to: • purpose of assessment • qualification to be assessed • assessment procedures to be followed • address needs of trainees and provide information on evidence requirements and assessment process • make all announcements just before start of assessment	Give clear instructions to trainees on what they are required to do: • time limits and expectations • all equipment and tools must be of the same quality for all trainees • written and verbal instructions translated into local dialects as needed • encourage questions • avoid providing any assistance to trainees during assessment • stop process if accident imminent • keep focused on evidence being valid, reliable, fair, flexible, and safe • Record details of evidence collected	Provide feedback on outcome of assessment process re: • give clear feedback on assessment decision • provide information on overcoming any gaps in competency assessment • provide opportunity to discuss assessment process and outcome **Prepare required assessment reports:** • all rating sheets signed by trainee as well as Assessor • maintain records of assessment procedures, evidence collected, and assessment outcome • verify assessment results/outcomes with training center **Prepare** recommendations for issuance of national certificate

Assessor's Quick Start

1. Identify the Unit(s) of Competency from the Program Standard that you are going to assess.

2. Review the Critical Aspects of Competency from the Unit of Competency that will be the basis of your Evidence Guide.

3. Select the Assessment Tools that you will use to gather evidence.
    i. Demonstration Checklist
    ii. Observation Checklist
    iii. Oral Questions Checklist

4. Create spec sheet(s) for the Unit of Competency to be examined.

5. Review the assessment procedure with the Candidate and ask if there are any questions.

6. Complete the assessment using the assessment tools in the order above. You are free to use other tools as well if you wish.

7. Determine whether Candidate is **Competent** or **Not-Yet-Competent**

8. Complete all necessary record sheets.

9. Give feedback to the Candidate.

Demonstration Checklist: Explain the Web

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Explain the Web (SEIP-IT-MOB-1-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Identify client server architecture through itemizing at least 5 types of network and their functions.	☐	☐	☐
2. Demonstrate installation and usage of at least 6 different web browsers.	☐	☐	☐
3. Identify features/options of 7 different web browsers.	☐	☐	☐
4. Show functions of the web design platform.	☐	☐	☐
5. Demonstrate capability with 6 web design software programs.	☐	☐	☐
6. Describe the role of the web server.	☐	☐	☐
7. Describe the role of the database server.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Explain the Web

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Explain the Web		
Code:	SEIP-IT-MOB-1-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Identify client server architecture through itemizing at least 5 types of network and their functions.			
2. Demonstrate installation and usage of at least 6 different web browsers.			
3. Identify features/options of 7 different web browsers.			
4. Show functions of the web design platform.			
5. Demonstrate capability with 6 web design software programs.			
6. Describe the role of the web server.			
7. Describe the role of the database server.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Explain the Web

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Explain the Web
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Can you identify 7 different types of web browsers?		
2. Can you identify at least 5 types of software?		
3. Can you describe the role of the web server?		
4. Can you identify at least 9 kinds of websites?		
5. What is the role of the database server?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Set Up Development Environment

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Set Up Development Environment (SEIP-IT-WDP-2-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Install local web server and use IDE (Integrated Development Environment), debugger source control, and source code.	☐	☐	☐
2. Install FTP (File Transfer Protocol) and operate.	☐	☐	☐
3. Use FTP clients to upload and/or move files to web server.	☐	☐	☐
4. Test website performance by starting local web server.	☐	☐	☐
5. Install database server and describe its functions.	☐	☐	☐
6. Install PHP on any OS (Operating System) to satisfaction of Assessor.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Set Up Development Environment

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Set Up Development Environment
Code:	SEIP-IT-MOB-2-O
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	NO
1. Install local web server and use IDE (Integrated Development Environment), debugger source control, and source code.		
2. Install FTP (File Transfer Protocol) and operate.		
3. Use FTP clients to upload and/or move files to web server.		
4. Test website performance by starting local web server.		
5. Install database server and describe its functions.		
6. Install PHP on any OS (Operating System) to satisfaction of Assessor.		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		
Candidate's Signature:		Date:
Assessor's Signature:		Date:

Oral Questions Checklist: Set Up Development Environment

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Set Up Development Environment
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. How is website performance tested?		
2. What function is used to upload or move files to the web server?		
3. Can PHP be installed on any OS?		
4. Can you define the terms "debugger," and "FTP Client."		
5. Can you identify three kinds of local web servers?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Explain PHP Basics

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Explain PHP Basics (SEIP-IT-WDP-3-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Describe several features of PHP Basic.	☐	☐	☐
2. Create a dynamic using PHP.	☐	☐	☐
3. Identify an array mechanism for keeping a series of data in computer memory.	☐	☐	☐
4. Demonstrate the capability to use the file management system.	☐	☐	☐
5. Use Loop effectively.	☐	☐	☐
6. Identify the SQL in database.	☐	☐	☐
7. Show capability in performing library functions and built in functions of PHP.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Explain PHP Basics

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Explain PHP Basics		
Code:	SEIP-IT-MOB-3-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Describe several features of PHP Basic.			
2. Create a dynamic using PHP.			
3. Identify an array mechanism for keeping a series of data in computer memory.			
4. Demonstrate the capability to use the file management system.			
5. Use Loop effectively.			
6. Identify the SQL in database.			
7. Show capability in performing library functions and built in functions of PHP.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Explain PHP Basics

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Explain PHP Basics
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. How is a PHP form made?		
2. Can you identify several functions of file management?		
3. Can you describe several features of library functions?		
4. What is involved in an array mechanism?		
5. To what extent is observing netiquette important?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Explain Web Concept

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Explain Web Concept (SEIP-IT-WDP-4-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Describe Basic HTML outlining at least 10 of its features.	☐	☐	☐
2. Describe the role of HTML.	☐	☐	☐
3. Identify and use the HTML web form.	☐	☐	☐
4. Demonstrate capability with the GET & POST method by sending information to the web server.	☐	☐	☐
5. State a restriction of the GET & POST method.	☐	☐	☐
6. Give a reason for the proper use of peripherals.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Explain Web Concept

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Explain Web Concept		
Code:	SEIP-IT-MOB-4-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Describe Basic HTML outlining at least 10 of its features.			
2. Describe the role of HTML.			
3. Identify and use the HTML web form.			
4. Demonstrate capability with the GET & POST method by sending information to the web server.			
5. State a restriction of the GET & POST method.			
6. Give a reason for the proper use of peripherals.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Explain Web Concept

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Explain Web Concept
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Can you describe the purpose of the GET & POST method?		
2. Can you identify 10 features of Basic HTML?		
3. What is the role of HTML stated simply?		
4. To what extent is orderliness important and why?		
5. What is involved in using the HTML web form?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Explain Clean Code

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Explain Clean Code (SEIP-IT-WDP-5-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Define the term "clean code."	☐	☐	☐
2. Demonstrate the ability to introduce a clean code variable.	☐	☐	☐
3. Outline the key elements in the Standard Coding Style Guide.	☐	☐	☐
4. Describe what is meant by "clean code error."	☐	☐	☐
5. Perform the correction of clean code error for at least 8 common errors.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Explain Clean Code

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Explain Clean Code		
Code:	SEIP-IT-MOB-5-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Define the term "clean code."			
2. Demonstrate the ability to introduce a clean code variable.			
3. Outline the key elements in the Standard Coding Style Guide.			
4. Describe what is meant by "clean code error."			
5. Perform the correction of clean code error for at least 8 common errors.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Explain Clean Code

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Explain Clean Code
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Can you define the term "clean code?"		
2. How many types of clean code error are there?		
3. How is clean code error identified?		
4. To what extent is different operating software an issue regarding clean codes?		
5. What is involved in the Standard Coding Style Guide?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Create Software Development Life Cycle

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Create Software Development Life Cycle(SEIP-IT-WDP-6-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Prepare a mock up from user stories.	☐	☐	☐
2. Describe a procedure for designing a schema diagram.	☐	☐	☐
3. Demonstrate the ability to make the design stand out with high quality mock up.	☐	☐	☐
4. Use HTML for prototype utilizing its many functions.	☐	☐	☐
5. Use CSS for prototype utilizing its many functions.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Create Software Development Life Cycle

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Create Software Development Life Cycle
Code:	SEIP-IT-MOB-6-O
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	NO
1. Prepare a mock up from user stories.		
2. Describe a procedure for designing a schema diagram.		
3. Demonstrate the ability to make the design stand out with high quality mock up.		
4. Use HTML for prototype utilizing its many functions.		
5. Use CSS for prototype utilizing its many functions.		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		
Candidate's Signature:		Date:
Assessor's Signature:		Date:

Oral Questions Checklist: Create Software Development Life Cycle

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Create Software Development Life Cycle
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. What is the purpose of CSS?		
2. How is user interface prepared?		
3. What is the importance/function of a schema diagram?		
4. How is a mock up prepared?		
5. What is the method for placing a design into a mobile screen?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Explain Object Oriented Programming (OOP)

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Explain Object Oriented Programming (OOP) (SEIP-IT-WDP-7-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Define PHP magic methods.	☐	☐	☐
2. Describe what is meant by "encapsulation."	☐	☐	☐
3. Define the term "inheritance" and its various relationships.	☐	☐	☐
4. Outline the nature of the association relationship between two classes.	☐	☐	☐
5. Describe language construction that facilitates the bundling of data with the methods.	☐	☐	☐
6. Describe how data and its functionality is encapsulated.	☐	☐	☐
7. Define subclasses and super classes inheritance.	☐	☐	☐
8. Create an inheritance relationship between classes to the satisfaction of the Assessor.	☐	☐	☐
	☐	☐	☐

Observation Checklist: Explain Object Oriented Programming (OOP)

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Explain Object Oriented Programming (OOP)		
Code:	SEIP-IT-MOB-7-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Define PHP magic methods.			
2. Describe what is meant by "encapsulation."			
3. Define the term "inheritance" and its various relationships.			
4. Outline the nature of the association relationship between two classes.			
5. Describe language construction that facilitates the bundling of data with the methods.			
6. Describe how data and its functionality is encapsulated.			
7. Define subclasses and super classes inheritance.			
8. Create an inheritance relationship between classes to the satisfaction of the Assessor.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:			Date:
Assessor's Signature:			Date:

Oral Questions Checklist: Explain Object Oriented Programming (OOP)

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Explain Object Oriented Programming (OOP)
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. What is meant by magic methods?		
2. Can you define "encapsulation?"		
3. What is meant by the "essence" of the inheritance relationship?		
4. Can you give examples of subclasses and super classes inheritance?		
5. Can you give a definition of the "association relationship?"		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Perform Web Development with PHP Using OOP

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Perform Web Development With PHP Using OOP (SEIP-IT-WDP-8-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Write Hypertext Mark-Up Language (HTML) in a website incorporating standard HTML tags in an HTML page.	☐	☐	☐
2. Implement HTML concepts covering at least 8 features.	☐	☐	☐
3. Implement Basic JAVA Scripting concepts such as JAVA script statements to satisfaction of Assessor.	☐	☐	☐
4. Apply Cascading Style Sheets (CSS) in a website.	☐	☐	☐
5. Implement the basic concepts of CSS covering at least 10 features.	☐	☐	☐
6. Implement common CSS usage tools.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Perform Web Development with PHP Using OOP

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Perform Web Development with PHP Using OOP		
Code:	SEIP-IT-MOB-8-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):			
		YES	**NO**
1. Write Hypertext Mark-Up Language (HTML) in a website incorporating standard HTML tags in an HTML page.			
2. Implement HTML concepts covering at least 8 features.			
3. Implement Basic JAVA Scripting concepts such as JAVA script statements to satisfaction of Assessor.			
4. Apply Cascading Style Sheets (CSS) in a website.			
5. Implement the basic concepts of CSS covering at least 10 features.			
6. Implement common CSS usage tools.			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:		Date:	
Assessor's Signature:		Date:	

Oral Questions Checklist: Perform Web Development With PHP Using OOP

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Perform Web Development With PHP Using OOP
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Can you give at least 8 examples of JavaScript statements?		
2. What are 4 common HTML tags? How do you go about implementing the basic concepts of CSS?		
3. How do you go about implementing the basic concepts of CSS?		
4. What is involved in writing HyperText Mark-up Language (HTML) in a website?		
5. What is the importance of netiquette?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Work With A Relational Database Management System (RDBMS)

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Work With A Relational Database Management System (RDBMS) (SEIP-IT-WDP-9-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Define several basic database concepts and their roles in web application.	☐	☐	☐
2. Demonstrate the ability to join query work when 3 or more tables are involved (SQL).	☐	☐	☐
3. Identify the role of database and its functions in web applications.	☐	☐	☐
4. Define the term "RDBMS."	☐	☐	☐
5. Identify 3 different database management systems.	☐	☐	☐
6. Perform simple CRUD (Create, Read, Update, Delete) operations in PHP with MYSQL.	☐	☐	☐
7. Operate data using PDO (PHP Data Object).	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Work With A Relational Database Management System (RDBMS)

Candidate's name:			
Assessor's name:			
Date of Assessment:			
Unit of Competency:	Work With A Relational Database Management System (RDBMS)		
Code:	SEIP-IT-MOB-9-O		
Name of Workplace/Training Center			
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided		
YES			
		YES	**NO**
1. Define several basic database concepts and their roles in web application.			
2. Demonstrate the ability to join query work when 3 or more tables are involved (SQL).			
3. Identify the role of database and its functions in web applications.			
4. Define the term "RDBMS."			
5. Identify 3 different database management systems.			
6. Perform simple CRUD (Create, Read, Update, Delete) operations in PHP with MYSQL.			
7. Operate data using PDO (PHP Data Object).			
Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**	
Feedback to Candidate:			
Candidate's Signature:		Date:	
Assessor's Signature:		Date:	

Oral Questions Checklist: Work With A Relational Database Management System (RDBMS)

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Work With A Relational Database Management System (RDBMS)
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. What is meant by "RDBMS?"		
2. What is the difference between a free database and a licensed database?		
3. What are the key resources that must be available in working with a Relational Database Management System?		
4. To what extent is a knowledge of basic database elements important prior to working with an RDBMS?		
5. How important is CRUD in working with database web applications?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**

Demonstration Checklist: Create Dynamic Web Application

Candidate's name:	
Assessor's name:	
Qualification:	Web Development PHP
Project-Based Assessment Title	
Units of competency covered:	Create Dynamic Web Application (SEIP-IT-WDP-10-0)
Date of assessment:	
Time of assessment:	

Instructions for demonstration	
Please see attached Instruction for Demonstration (Candidate/Assessor)	
Supplies and Materials ▪ Please refer to attached specific instruction	Tools and equipment • Please refer to attached specific instruction

	✓ to show if evidence is demonstrated		
During the demonstration of skills, did the candidate:	Yes	No	N/A
1. Develop a website using PHP while ensuring MYSQL database is installed and configured.	☐	☐	☐
2. Prepare a project document ensuring appropriate UI layout.	☐	☐	☐
3. Apply data sanitization for security ensuring overall data storage security protection at different levels and locations are installed.	☐	☐	☐
4. Upload and download files.	☐	☐	☐
5. Apply pagination to each page in a website with many pages.	☐	☐	☐
6. Develop a website in PHP ensuring Software Development Life Cycle (SDLC) is implemented.	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Observation Checklist: Create Dynamic Web Application

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Unit of Competency:	Create Dynamic Web Application
Code:	SEIP-IT-MOB-10-O
Name of Workplace/Training Center	
Procedure to Follow:	Observe Candidate's performing the task, and following the spec- if a spec is provided

During the demonstration of skills, did the Candidate do the following (List steps that reflect critical aspects of competency from performance criteria of Unit of Competency):

	YES	NO
1. Develop a website using PHP while ensuring MYSQL database is installed and configured.		
2. Prepare a project document ensuring appropriate UI layout.		
3. Apply data sanitization for security ensuring overall data storage security protection at different levels and locations are installed.		
4. Upload and download files.		
5. Apply pagination to each page in a website with many pages.		
6. Develop a website in PHP ensuring Software Development Life Cycle (SDLC) is implemented.		

Candidate's performance was:	**COMPETENT**	**NOT YET COMPETENT**
Feedback to Candidate:		

Candidate's Signature:	Date:
Assessor's Signature:	Date:

Oral Questions Checklist: Create Dynamic Web Application

Candidate's name:	
Assessor's name:	
Date of Assessment:	
Assessment Venue:	
Unit of Competency:	Create Dynamic Web Application
Reference Standard:	**Web Development PHP**

The List of Questions below must be pegged to the competency demonstration test and may involve related specs for each Unit of Competency tested. Underpinning skills for Knowledge may also be reviewed for Competent/Not Yet Competent designation.

List of Questions	Satisfactory Response

Indicate Y or N in the box provided	YES	NO
1. Can you define the term "crypto keys?"		
2. What are 2 common software programs for PHP Editor?		
3. What are several common PHP tools?		
4. What are several common PHP documents?		
5. What is involved in understanding user management in PHP application?		

Feedback to Candidate:

The Candidate's overall performance was (circle): Satisfactory/ Not Satisfactory

The Candidate's underpinning knowledge was (circle): Satisfactory/ Not Satisfactory

Assessor Signature:	**Date:**
Candidate Signature:	**Date:**