

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace functions	These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the range)</i>
6. Perform System Implementation	6.1. <i>System implementation methods</i> are identified as per system implementation standards 6.2.Appropriate implementation method is selected according to the user needs 6.3. <i>Prerequisite implementation procedures</i> are performed as per the user needs 6.4.System is deployed according to the selected implementation method procedure
7. Perform system maintenance	7.1.System reviewed according to the organization policy 7.2.System maintenance is performed according to the review outcome 7.3.System maintenance report is developed as per workplace procedures

RANGE

This section provides work environment and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range <i>May include but is not limited to:</i>
1. System development life cycle models may include but are not limited to:	• Waterfall • Prototyping • Dynamic system Development model (DSDM) • Object oriented model
2. SDLC phases may include but are not limited to:	• Planning • Analysis • Design • Testing • Implementation • Maintenance
3. Attributes of structures analysis may include but are not limited to:	• Graphic • Logical • Process division • High level to lower-level approach
4. Components of system design may include but are not limited to:	• Quality • Timeliness • Cost-Effectiveness
5. Stages of system design may include but are not limited to:	• Requirements determination • Requirements specifications • Feasibility Analysis • Final Specifications • Hardware study • System Design
6. Data Modelling techniques may include but are not limited to:	• Conceptual • Relational • Object Oriented

Variable	Range <i>May include but is not limited to:</i>
7. Types of the system testing may include but are not limited to:	• Software • Unit • Integration • Usability
8. System implementation methods may include but are not limited to:	• Direct • Phased • Piloting • parallel
9. Prerequisite implementation procedures may include but are not limited to:	• User training, data conversion, hardware/software acquisition, personnel recruitment

REQUIRED KNOWLEDGE AND SKILLS

This section describes the knowledge and skills required for this unit of competency.

Required knowledge

1. system design and system Analysis concepts
2. System development Approaches
3. System development methodologies
4. System development life cycle models
5. SDLC phases are identified.
6. Project planning concepts
7. Tools and techniques of system analysis
8. Activities performed during System analysis
9. Components and concepts of system design
10. Data Modelling techniques
11. System implementation procedures
12. Types of the system testing

13. Deployment procedures of the system

14. Types of system maintenance

Required skills

The individual needs to demonstrate the following foundation skills:

- Communications (verbal and written);
- Proficient in ICT
- Time management
- Analytical
- Planning
- Decision making
- Report writing

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and understanding and range.

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: 1.1 Applied System analysis and design concepts as per user needs. 1.2 Identified SDLC phases as per work procedures. 1.3 Performed System analysis activities as per user need. 1.4 Prepared Software requirements specification (SRS) document-based user story. 1.5 Identified components of system design-based SRS document. 1.6 Identified inputs and outputs of System Design as per SRS document.
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	1.7 Identified types of system design as per system design principles. 1.8 Identified Stages of system design according to system design principles. 1.9 Performed Input design according to system specification 1.10 Identified System Security and control measures as per SRS document. 1.11 Performed process design according to system specification. 1.12 Performed Output design according to system specification. 1.13 Developed designed System as per the system design. 1.14 Deployed developed System according to the selected implementation method procedure. 1.15 Performed system maintenance according to the review outcome.
2. Resource implications	The following resources should be provided: 2.1 Appropriately simulated environment where assessment can take place 2.2 Access to relevant work environment 2.3 Resources relevant to the proposed activities or tasks
3. Methods of assessment	Competency may be assessed through: 1.1 Practical 1.2 Projects 1.3 Third Party Reports 1.4 Portfolio of evidence 1.5 Written tests
4. Context of assessment	Competency may be assessed in a workplace or in a simulated workplace