

MANAGE COMPUTERIZED DATABASE SYSTEMS

ISCED UNIT CODE: 0612 451 08A

TVET CDACC UNIT CODE: IT/OS/ICTA/CR/03/5/MA

UNIT DESCRIPTION

This unit covers the competencies required to manage computerized database systems. It involves designing computerized database, creating computerized database, manipulating computerized database, testing computerized database and maintaining computerized database.

ELEMENTS AND PERFORMANCE CRITERIA

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>
1. Design computerized database.	1.1 Computerized database requirements are established as per user needs.
	1.2 Computerized database models are developed as per user needs.
	1.3 Computerized database is designed as per user requirements.
2. Create computerized database.	2.1 Computerized database objects are created as per user requirements.
	2.2 Computerized database is developed as per the computer database design.
	2.3 Computerized database data relationships are established as per the database design.

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>
3. Manipulate computerized database.	3.1 Database is populated as per the workplace procedure.
	3.2 Data is retrieved as per the workplace requirement.
	3.3 Data report is developed as per workplace requirement.
4. Test computerized database.	4.1 Test plan is developed as per user requirements.
	4.2 Test data is prepared as per user requirements.
	4.3 Database is tested as per the work requirement.
	4.4 Database test report is generated as per work requirement.
5. Maintain computerized database.	5.1 Database is optimized as per the user requirements.
	5.2 Computer database maintenance schedule is prepared as per workplace procedure.
	5.3 Computer database is monitored as per database maintenance schedule.
	5.4 Computer database maintenance report is generated as per workplace procedure.

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
1. Database models may include but are not limited to:	• Network • Hierarchical • Relational • Object oriented
2. Database objects may include but are not limited to:	• Forms • Tables • Reports • Queries • Macros
3. Data relationships may include but are not limited to:	• One to one • One to many • Many to many

REQUIRED KNOWLEDGE AND SKILLS

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

Required Knowledge

The individual needs to demonstrate knowledge of:

- System analysis and design
- Documentation processes
- Computer and devices settings
- Cyber security threats and measures
- Technology trends in computerized database
- Techniques of distribution and monetizing of computerized database.
- Troubleshooting techniques

- Types of Maintenance techniques
- Data protection laws

Required skills

The individual needs to demonstrate the following skills:

- Report Writing
- Data collection
- Analytical skills
- Problem solving skills
- Communication skills
- Time management
- Critical thinking

EVIDENCE GUIDE

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

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1.Developed computerized <i>database models</i> as per user needs. 1.2.Designed computerized database as per user requirements. 1.3.Computerized <i>database objects</i> are created as per user requirements. 1.4.Developed computerized database as per the computer database design. 1.5.Populated computerized database as per the workplace procedure. 1.6.Retrieved data as per the workplace requirement. 1.7.Tested computerized database as per the work requirement. 1.8.Optimized computerized database as per the user requirements.
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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: 3.1 Practical 3.2 Projects 3.3 Third Party Reports 3.4 Portfolio of evidence 3.5 Written tests
4. Context of assessment	Competency may be assessed in a workplace or in a simulated workplace
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace job role is recommended.