

## **MANAGE DATABASE SYSTEM (MS ACCESS)**

**UNIT CODE: IT/CU/ICT/CR/04/5/B**

### **Relationship to Occupational Standards**

**This unit addresses the unit of competency:** Manage Database System (MS Access)

**Duration of Unit:** 150 hours

#### **Unit Description:**

This unit specifies competencies required to manage database system. Which involve identifying database concepts, designing a basic database, creation and manipulation of database objects, database testing and printing of database objects.

#### **Summary of Learning Outcomes:**

1. Identify database concepts
2. Design basic database
3. Create and manipulate database objects
4. Perform database testing
5. Print database objects

#### **Learning Outcomes, Content and Suggested Assessment Methods**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Assessment Method</b>
1. Identify database concepts	<ul style="list-style-type: none"><li>• Define database</li><li>• Database models are identified<ul style="list-style-type: none"><li>◦ ER- Models</li><li>◦ Relational Models</li><li>◦ Hierarchical models</li><li>◦ Network Models</li></ul></li><li>• Merits and demerits of database are defined</li></ul>	<ul style="list-style-type: none"><li>• Practical exercises</li><li>• Oral questioning</li><li>• Written test</li><li>• Learner portfolio of evidence.</li></ul>

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Assessment Method</b>
2. Design basic database	<ul style="list-style-type: none"> <li>• Database design concepts are identified <ul style="list-style-type: none"> <li>◦ Entry integrity</li> <li>◦ Referential integrity</li> <li>◦ Relationships</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Practical exercises</li> <li>• Oral questioning</li> <li>• Written test</li> <li>• Learner portfolio of evidence.</li> </ul>
3. Create and manipulate database objects	<ul style="list-style-type: none"> <li>• Database objects are created <ul style="list-style-type: none"> <li>◦ Tables</li> <li>◦ Queries</li> <li>◦ Reports</li> <li>◦ Forms</li> </ul> </li> <li>• Creation of tables <ul style="list-style-type: none"> <li>◦ Primary and secondary key</li> </ul> </li> <li>• Linking of tables</li> <li>• Data variables</li> <li>• Database integration</li> <li>• Database Querying</li> </ul>	<ul style="list-style-type: none"> <li>• Practical exercises</li> <li>• Oral questioning</li> <li>• Written test</li> <li>• Learner portfolio of evidence.</li> </ul>
4. Perform database testing	<ul style="list-style-type: none"> <li>• Integration testing</li> <li>• DB Query testing</li> <li>• Perform database testing</li> <li>• Generate test report</li> </ul>	<ul style="list-style-type: none"> <li>• Practical exercises</li> <li>• Oral questioning</li> <li>• Written test</li> <li>• Learner portfolio of evidence.</li> </ul>
5. Print database objects	<ul style="list-style-type: none"> <li>• Procedure of printing database objects is identified</li> <li>• Print <ul style="list-style-type: none"> <li>◦ Tables</li> <li>◦ Queries</li> <li>◦ Reports</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Practical exercises</li> <li>• Oral questioning</li> <li>• Written test</li> <li>• Learner portfolio of evidence</li> </ul>

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Assessment Method</b>
	o Forms	

### **Suggested Methods of Delivery**

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;

The delivery may also be supplemented and enhanced by the following, if the opportunity allows:

- Visiting lecturer/trainer from the ICT sector;
- Industrial visits.

### **Recommended Resources**

#### **Tools**

- Microsoft Access
- MYSQL
- SQL Server

#### **Equipment**

- Computer
- Printer
- Stationery

#### **Materials and supplies**

- Digital instructional material including DVDs and CDs

#### **Reference materials**

- Manuals