

**061306T4CPM**

**COMPUTER PROGRAMMING LEVEL 6**

**IT/OS/CP/CR/04/6/A**

**DEMONSTRATE DATABASE DESIGN AND DEVELOPMENT**

**NOV/DEC 2023**



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND  
CERTIFICATION COUNCIL (TVET CDACC)**

**PRACTICAL ASSESSMENT**

**Time: 2 Hours**

**INSTRUCTIONS TO THE ASSESSOR**

1. You are required to mark the practical as the candidate performs the tasks.
2. You are required to take video clips at critical points.
3. Allocate the candidate **10 minutes** to carefully read through the instructions and to collect the tools/resources required for the tasks.
4. The candidate should write his/her name, registration code, date and sign in the practical assessment attendance register.
5. Ensure the candidate has a name tag and registration code at the back and front.
6. Ensure the candidate has been provided with:
  - A computer preferably installed with windows 10 and installed with MS SQL server

## OBSERVATION CHECKLIST

<b>Candidate's name &amp; Registration No.</b>			
<b>Assessor's name &amp; Reg. code</b>			
<b>Unit(s) of Competency</b>			
<b>Venue of Assessment</b>			
<b>Date of assessment</b>			
<i>(Award mark(s) appropriately as guided for in the items for evaluation indicated. Give a brief comment where necessary)</i>			
<b>Items to be evaluated:</b>	<b>Marks Available</b>	<b>Marks Obtained</b>	<b>Comments</b>
<b>Task 1: Create a company database together with its tables using SQL Statements</b>			
1. Launched Microsoft SQL Server Management Studio 2012 Express <i>(Award 1 mark or zero)</i>	1		
2. Created a new database named "MaendeleoDB." Using SQL Statement– <ul style="list-style-type: none"> <li>➤ Used "CREATE Database" statement</li> <li>➤ Correctly displayed output</li> </ul> <i>(Award 1 mark or zero)</i>	1		
3. Correctly created an "Employees" table using SQL Statement, Followed correct coding standards and Best Practices. <ul style="list-style-type: none"> <li>➤ USE "database";</li> <li>➤ CREATE TABLE</li> <li>➤ PRIMARY KEY,</li> <li>➤ FOREIGN KEY</li> <li>➤ REFERENCES</li> <li>➤ Added Fields</li> </ul> <i>(Award 1 mark for each or zero)</i>	5		
4. Correctly displayed the Employees Table <i>(Award 1 mark or zero)</i>	1		

5. Correctly created a "Departments" table using SQL Statement, Followed correct coding standards and Best Practices. <ul style="list-style-type: none"> <li>➤ CREAT TABLE</li> <li>➤ Primary KEY,</li> <li>➤ FOREIGN KEY</li> <li>➤ REFERENCES</li> <li>➤ Added Fields</li> </ul> <i>(Award 1 mark for each or zero)</i>	5		
6. Correctly displayed the Departments Table <i>(Award 1 mark or zero)</i>	1		
7. Correctly created a "Projects" table using SQL Statement, Followed correct coding standards and Best Practices. <ul style="list-style-type: none"> <li>➤ CREAT TABLE</li> <li>➤ Primary KEY,</li> <li>➤ FOREIGN KEY</li> <li>➤ REFERENCES</li> <li>➤ Added Fields</li> </ul> <i>(Award 1 mark for each or zero)</i>	5		
8. Correctly displayed the Projects Table <i>(Award 1 mark or zero)</i>	1		
9. Correctly inserted at least 5 records into each of the created tables using the correct SQL Statement <ul style="list-style-type: none"> <li>➤ INSERT INTO</li> <li>➤ VALUES</li> </ul> <i>(Award 5 marks for each table whose records are correctly inserted or zero)</i>	15		
10. Correctly displayed all the inserted records for all the Tables created <i>(Award 5 marks or zero)</i>	5		
<b>TOTAL</b>	<b>40</b>		

<b>TASK 2:</b> <b>Retrieve records stored in the created database using SQL statements</b>			
1. Correctly displayed the list of all employees, including their first name, last name, and department name using the correct SQL Statement <i>(Award 2 marks or zero)</i>	2		
2. Correctly displayed a list of employees who were born after 1980 using the correct SQL Statement. <i>(Award 2 marks or zero)</i>	2		
3. Correctly displayed a list of employees who were born after 1980 using the correct JOIN SQL Statement. <i>(Award 2 marks or zero)</i>	2		
4. Correctly displayed a list of employees who are currently managing a department (used JOINS) using the correct SQL Statement. <i>(Award 2 marks or zero)</i>	2		
5. Correctly displayed a list of projects that are currently active (i.e., EndDate is in the future) using the correct SQL Statement. <i>(Award 2 marks or zero)</i>	2		
<b>TOTAL</b>	<b>10</b>		
<b>TOTAL (ALL TASKS)</b>	<b>50</b>		
<b>ASSESSMENT OUTCOME</b>			
<b>The candidate was found to be:</b>			
Competent <input type="checkbox"/> Not yet competent <input type="checkbox"/>			
<i>(Please tick as appropriate)</i>			
<i>(The candidate is competent if s/he gets 50% or higher of the items of evaluation correct)</i>			

<b>Feedback from candidate:</b>	
<b>Feedback to candidate:</b>	
<b>Candidate's Signature</b>	<b>Date</b>
-----	-----
<b>Assessor's/ verifier's signature</b>	