

061205T4CYB

CYBER SECURITY TECHNICIAN LEVEL 5

SECURE DATABASES

SEC/OS/CS/CR/05/5/A

Nov. / Dec. 2023



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

PRACTICAL ASSESSMENT

Time: 2 Hours

INSTRUCTIONS TO CANDIDATE

1. This assessment requires the candidate to demonstrate competence against unit of competency: **Secure Databases**.
2. In this assessment, you will be required to perform **four (4)** practical tasks.
3. Write your name, registration code, date and sign in the practical assessment attendance register.
4. You have **10 minutes** to carefully read through the instructions and to collect the tools/resources required for the tasks.
5. The assessor will record your performance at critical points using audio-visual means.

This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing

The following resources will be provided to the candidate:

- i. A Computer with an operating system installed.
- ii. Database Management Software
- iii. Reliable internet connection

INSTRUCTIONS:

In this assessment, you are required to complete the following tasks:

Task 1: Creating a database

- I. Open a database management program and create a database file named Masomo Database.
- II. Create the following tables in the database created in (i). Save the tables as student, Lecturer and Course respectively.

Student Table

FIELD NAME	DATA TYPE
AdmNO	Text
Fname	Text
Lname	Text
CourseID	Number

Lecturer Table

FIELD NAME	DATA TYPE
LecID	text
Fname	Text
Lname	Text
CourseID	Number

Course Table

FIELD NAME	DATA TYPE
CourseID	Number
Coursename	Text

- III. Create appropriate relationship between tables
- IV. Create forms that could be used to enter data to each of the tables. Save the form as *Studentfrm*, *Lecturerfrm* and *Coursefrm*.

Student Form

AdmNO	Fname	Lname	CourseID
IT-001	Ann	Maloba	101
IT-002	Tom	Ushidi	102
IT-003	Joy	Pendo	101

Lecturer Form

LecID	Fname	Lname	CourseID
L001	Ann	Maloba	101
L002	Tom	Ushidi	102
L003	Joy	Pendo	101

Course Form

CourseID	Coursename
101	Information Technology
102	Cyber Security
103	Computer Technology

Task 2: Implementation of database security

Implement the following database security requirements for Masomo database

- i. Enforcing data integrity
- ii. Confidentiality
- iii. Authentication

Task 3: Manage database backups

- i. Create backup for Masomo database

Task 4: Install database patches

- i. Install database patch for Masomo database