

**061306T4CSC**

**COMPUTER SCIENCE LEVEL 6**

**ICT/OS/CS/CR/05/6/A**

**ICT/OS/CS/CR/05/6/B**

**Demonstrate Database Management Skills**

**July/August 2025**



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

**PRACTICAL ASSESSMENT**

**DURATION: TO RUN THROUGHOUT THE UNIT TRAINING PERIOD**

**INSTRUCTIONS TO CANDIDATE:**

1. You are required to perform the following tasks
  - i. Install MS SQL Sever
  - ii. Design the database
  - iii. Create and manipulate database tables
2. You have been provided with the following resources:
  - i. *A working computer*
  - ii. *Internet Access*

**Task 1: Installation of MS SQL server**

You are required to perform the following activities:

- i. Download MS SQL server/ Management Studio (SSMS)
- ii. Install MS SQL server/ Management Studio

- i. Create a database called sports and a table called **games** with the fields code, name, game and gender,
- ii. Insert the following records to games table

Code	Name	Game	gender
1	Mesh	athletics	m
2	Rod	football	f
3	Lim	basketball	m
4	Lon	table tennis	f
5	Tin	restling	f

- a.
  - i. Create a table called **duties** with the fields code, institution and title.
  - ii. Insert the following records to duties table.

Code	Institution	title
1	Nima	Coach
2	Gosh	referee
3	Tumo	player
4	Riwa	player
5	Zilo	player

Create views to perform the following tasks: -

- i. Extract all records from games table
- ii. Extract details code 3 from the two tables
- iii. Extract records of athletics or basketball from games folder

### Task 2: Create a database, two tables

- a.
  - i. Create a database called Student
  - ii. Create two tables with the formats given below in the student database.

#### stDetails

admNo	Name	Gender	Address	Town	Class

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**stMarks**

admNo	Maths	Biology	Chemistry	Physics

b. Insert the records below into stDetails and stMarks tables as shown

**stDetails**

admNo	Name	Gender	Address	Town	class
2000	Janet	F	P.o.Box 100	Kitale	F4 South
2001	Tabutany	F	P.o.Box 78	Eldoret	F4 North
2002	Were	M	P.o.Box 201	Nakuru	F4 West
2003	Mambu	M	P.o.Box 43	Eldoret	F4 East
2004	Mercy	F	P.o.Box 20	Nakuru	F4 East

**stMarks**

admNo	Maths	Biology	Chemistry	Physics
2000	56	45	73	66
2001	87	54	80	55
2002	90	78	85	74
2003	87	67	83	62
2004	54	72	70	68

c. Write SQL statements to perform the following tasks

- Add a new field called Total to stMarks table.
- Add new field called Avg to stMarks table.
- Calculate the sum of marks for each student and store in total field.
- Calculate the average marks for each student and store in avg field.

Task 3: **Create a database called patient, two table pDetails and pAilments, insert records, extract records.** (25 Marks)

a.

- i. Create the database called patient
- ii. Create two tables called pDetails and pAilments in patient database with the formats shown below,

pDetails

patNo	name	gender	residence	age

pAilments

patNo	ailment	status

b. Insert records to pDetails and pAilments tables as shown.

pDetails

patNo	name	gender	residence	age
4550	Neshe	M	Umoja	34
4567	Mengo	F	Kajiado	50
7894	Wira	F	Athi River	45
5434	Elijah	F	Nakuru	23
3233	Mawingu	M	Limuru	12

pAilments

patNo	ailment	status
4550	Malaria	severe
4567	Typhoid	Mild
7894	TB	Mild
5434	Malaria	severe
3233	TB	severe

c. Write SQL statements to perform the following tasks

- a) Extract a list of male patients from Umoja who are suffering from Malaria
- b) Extract a list of female patients who are suffering from typhoid
- c) Extract a list of patients suffering from Malaria or Typhoid
- d) Extract a list of patients suffering from severe TB
- e) Create an index on patNo field in pDetails