©2024 TVET CDACC

061205T4CYB

CYBER SECURITY LEVEL 5

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

Secure Databases

Nov / Dec 2024

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

easytvet.com

PRACTICAL ASSESSMENT

Time: 3 Hours

INSTRUCTIONS TO CANDIDATE:

1. Create a folder named **CDACC** on the desktop where you save all your work.
2. You have been provided with the following resources for the practical tasks:
    i. *A Computer with an operating system installed.*
    ii. *Database Management Software (e.g. Ms. Access, MySQL)*

This paper consists of Four (4) printed pages

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

Task One – Database creation, Data definition and Data Access

Digital Automobile Ltd Company sells different types of vehicles. The owner has requested you to prepare a database for his business for better record management.

1. Open a database program and create a database file named XYZ inside your folder.
2. Create the following tables in the database created. Save them as vehicles, customer and payment respectively setting appropriate key identifiers.

Vehicles

FieldName	Data Type	Field size / other details
VehcleRegNO	Text	10
VehicleType	Text	15
VehicleMake	Text	20
VehiclePrice	Currency	

easytvet.com

Customer

FieldName	Data Type	Field size / other details
CustomerID	Text	10
CustomerName	Text	50
CustomerAddress	Number	integer
CustomerTown	Text	25
VehicleRegNO	Text	10

Payment

FieldName	Data Type	Field size / other details
CustomerName	Text	50
VehcleRegNO	Text	10
VehiclePrice	Currency	
AmountPaid	Currency	

3. Create appropriate relationships between the three tables.
4. Create a form for each of the tables to be used to enter data. Save the form as frmVehicle, frmCustomer and frmPayment respectively.
5. Using the forms created above, enter the following data into the respective tables.

Vehicles Details

VehcleRegNO	VehicleType	VehicleMake	VehiclePrice
KAM 201	Matatu	Nissan	1,300,000
KAM 202	Bus	Mazda	2,500,000
KAM 203	Saloon	Toyota	800,000
KAM 204	Pick Up	Peugeot	1,000,000
KAM 205	Lorry	Isuzu	3,000,000
KAM 206	Pick Up	Toyota	1,800,000
KAM 207	Bus	Scania	7,500,000
KAM 208	Bluebird	Toyota	3,500,000

Customer Details

CustomerID	CustomerName	CustomerAddress	CustomerTown	VehicleRegNo
B1001	Peter	254	Nakuru	KAM 201
B1002	John	678	Eldoret	KAM 202
B1003	Ken	963	Nairobi	KAM 203
B1004	David	147	Nakuru	KAM 204
B1005	Roy	456	Bungoma	KAM 205
B1006	Glen	789	Webuye	KAM 206
B1007	Jonathan	546	Nairobi	KAM 207
B1008	Lewis	223	Meru	KAM 208

easytvet.com

Payment Details

CustomerName	VehicleRegNo	VehiclePrice	AmountPaid
Peter	KAM 201	1,200,000	800,000
John	KAM 202	2,400,000	2,000,000
Jonathan	KAM 207	7,500,000	7,500,000
Ken	KAM 203	800,000	600,000
David	KAM 204	1,000,000	700,000
Roy	KAM 205	3,000,000	2,000,000
Glen	KAM 206	1,800,000	1,600,000
Lewis	KAM 208	3,500,000	2,800,000

6. Create a query to calculate the payment balance of the vehicles. Save the query as qrybalance.

Task Two: Implementation of database security.

Encrypt the XYZ database with the following password.

xyz@2024

Task Three: Monitor Database Performance

Monitor the database performance by generating database log. Save the report inside your folder as **XYZ *Database Report***

Task Four: Perform Database Repair and Recovery

Perform a database repair and recovery of the XYZ database.

Task Five: Manage database backup

Backup XYZ database file and store the copy as ***XYZ Backup*** inside your folder.

easytvet.com