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mysql> system echo "Muhammad Rehan 22P-9106 BSE-4a DATABASE FINAL EXAM"
Muhammad Rehan 22P-9106 BSE-4a DATABASE FINAL EXAM
mysql> system echo "Question no 1 lets start with creating a database named
pharmacyDb"
mysql> CREATE DATABASE pharmacyDb;
Query OK, 1 row affected (0.01 sec)

mysql> USE pharmacyDb;
Database changed
mysql>
mysql> system echo "now lets make the tables shown in the exam sheet"
now lets make the tables shown in the exam sheet
mysql>
mysql> CREATE TABLE Supplier (
  → SupplierID INT PRIMARY KEY,
  → Name VARCHAR(100),
  → ContactInformation VARCHAR(100)
d  → );
Query OK, 0 rows affected (0.02 sec)

mysql>
emysql> CREATE TABLE Pharmacy (
  → PharmacyID INT PRIMARY KEY,
  → Name VARCHAR(100),
3  → Location VARCHAR(50),
  → ContactInformation VARCHAR(100)
  → );
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> CREATE TABLE Pharmacist (
  → PharmacistID INT PRIMARY KEY,
  → Name VARCHAR(100),
  → ContactInformation VARCHAR(100),
  → LicenseNumber VARCHAR(50),
  → PharmacyID INT
  → FOREIGN KEY (PharmacyID) REFERENCES Pharmacy(PharmacyID)
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE Medicine (
  → MedicineID INT PRIMARY KEY,
  → Name VARCHAR(100),
  → Description TEXT,
  → Quantity INT,
  → Price DECIMAL(10, 2),
  → ExpiryDate DATE
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE Prescription (
  → PrescriptionID INT PRIMARY KEY,
  → Date DATE,
  → PatientName VARCHAR(100),
e  → DoctorName VARCHAR(100),
  → ContactInformation VARCHAR(100),
  → PharmacyID INT,
  → FOREIGN KEY (PharmacyID) REFERENCES Pharmacy(PharmacyID)
E 0  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE Orders (
  → OrderID INT PRIMARY KEY,
  → OrderDate DATE,
  → TotalAmount DECIMAL(10, 2),
  → SupplierID INT
  → FOREIGN KEY (SupplierID) REFERENCES Supplier(SupplierID)
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE OrderDetails (
  → OrderDetailsID INT PRIMARY KEY,
  → Quantity INT,
  → Price DECIMAL(10, 2),
  → OrderID INT,
  → MedicineID INT,
  → FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),
a  → FOREIGN KEY (MedicineID) REFERENCES Medicine(MedicineID)
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
tmysql>
Nmysql> CREATE TABLE PharmacyMedicine (
  → PharmacyID INT,
  → MedicineID INT,
  → PRIMARY KEY (PharmacyID, MedicineID),
-  → FOREIGN KEY (PharmacyID) REFERENCES Pharmacy(PharmacyID),
  → FOREIGN KEY (MedicineID) REFERENCES Medicine(MedicineID)
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
-mysql> CREATE TABLE PrescriptionMedicine (
  → PrescriptionID INT,
  → MedicineID INT,
  → PRIMARY KEY (PrescriptionID, MedicineID),
  → FOREIGN KEY (PrescriptionID) REFERENCES Prescription(PrescriptionID),
P  → FOREIGN KEY (MedicineID) REFERENCES Medicine(MedicineID)
  → );
Query OK, 0 rows affected (0.03 sec)

mysql>
mmysql> CREATE TABLE PharmacySupplier (
  → PharmacyID INT,
  → SupplierID INT,
a  → PRIMARY KEY (PharmacyID, SupplierID),
  → FOREIGN KEY (PharmacyID) REFERENCES Pharmacy(PharmacyID),
  → FOREIGN KEY (SupplierID) REFERENCES Supplier(SupplierID)
  → );
Query OK, 0 rows affected (0.04 sec)

mysql>
mysql> system echo "-----"
-----
mysql>
mysql> system echo "question no 2"
question no 2
mysql>
mysql> INSERT INTO Pharmacy (PharmacyID, Name, Location, ContactInformation)
VALUES (1, 'HealthPlus Pharmacy', '123 Wellness Blvd', '123-456-7890');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Pharmacy (PharmacyID, Name, Location, ContactInformation)
VALUES (2, 'CareWell Pharmacy', '456 Healthy Way', '987-654-3210');
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Pharmacy (PharmacyID, Name, Location, ContactInformation)
VALUES (3, 'Wellness Pharmacy', '789 Health St', '456-789-0123');
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO Pharmacy (PharmacyID, Name, Location, ContactInformation)
VALUES (4, 'Healthy Life Pharmacy', '321 Wellness Lane', '321-654-9870');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> INSERT INTO Pharmacy (PharmacyID, Name, Location, ContactInformation)
VALUES (5, 'PharmaCare', '147 Cure Ave', '741-852-9630');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> system echo "-----"
-----
mysql>
mysql> system echo "Question no 3"
Question no 3
mysql> system echo "Question no 3.a"
Question no 3.a
mysql>
mysql> CREATE INDEX idx_medicine ON Medicine (Name);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> CREATE INDEX idx_Orderdate ON Orders (OrderDate);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> CREATE INDEX idx_Price ON Medicine (Price);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql>
mysql> system echo "Question no 3.b"
Question no 3.b
mysql>
mysql> SELECT * FROM Pharmacy WHERE Name NOT LIKE '%L%';
+-----+-----+-----+-----+
| PharmacyID | Name          | Location      | ContactInformation |
+-----+-----+-----+-----+
| 5          | PharmaCare   | 147 Cure Ave | 741-852-9630      |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
mysql> system echo "Question no 3.c"
Question no 3.c
mysql>
mysql> SELECT * FROM Medicine WHERE ExpiryDate < CURDATE();
Empty set (0.00 sec)

mysql>
mysql> system echo "Question no 3.d"
Question no 3.d
mysql>
mysql> SELECT DISTINCT Prescription.PatientName
  → FROM Prescription
  → JOIN PrescriptionMedicine ON Prescription.PrescriptionID =
PrescriptionMedicine.PrescriptionID
  → WHERE Medicine.Name LIKE '%steroid%';
Empty set (0.00 sec)

mysql>
mysql> system echo "Question no 3.e"
Question no 3.e
mysql>
mysql> SELECT COUNT(*) FROM OrderDetails
  → JOIN Medicine ON OrderDetails.MedicineID = Medicine.MedicineID
  → WHERE Medicine.Name = 'Paracetamol';
+-----+
| COUNT(*) |
+-----+
| 0        |
+-----+
1 row in set (0.00 sec)

mysql>
mysql> system echo "Question no 3.f"
Question no 3.f
mysql>
mysql> CREATE VIEW Qty_view AS
  → SELECT Medicine.Name, AVG(OrderDetails.Quantity) AS AverageQuantity
  → FROM OrderDetails
  → JOIN Medicine ON OrderDetails.MedicineID = Medicine.MedicineID
  → WHERE Medicine.Name IN ('med1', 'med2', 'med3')
  → GROUP BY Medicine.Name;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> system echo "Question no 3.g"
Question no 3.g
mysql>
mysql> UPDATE Orders
  → SET TotalAmount = (SELECT SUM(Quantity * Price) FROM OrderDetails WHERE
Orders.OrderID = OrderDetails.OrderID);
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0 Changed: 0 Warnings: 0

mysql>
mysql> system echo "Question no 3.h"
Question no 3.h
mysql>
mysql> system echo "its called protecting your sql installation, Sir when i
installed the mysql on debain i set the password strength high and now i dont
remeber the commands to modify mysql root setting so this error of the week
when i installed the mysql on debain i set the password strength high and now i dont remeber the commands to
modify mysql root setting so this error of the week password will come because i
dont remeber my roll no
mysql> CREATE USER 'rohtanza'@'localhost' IDENTIFIED BY '22p-910622p-9106!@#$',
ERROR 1819 (HY000): Your password does not satisfy the current policy
requirements
mysql> system echo "Question no 3.i"
Question no 3.i
mysql>
mysql> GRANT SELECT ON pharmacyDb.Qty_view TO 'rohtanza'@'localhost';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql>
mysql> system echo "Question no 3.j"
Question no 3.j
mysql>
mysql> system echo "I didnt understand the question to be honest"
I didnt understand the question to be honest
mysql>
mysql>
mysql> system echo "Question no 3.k"
Question no 3.k
mysql>
mysql> system echo "Sir i dont know the exact single sqlstate which has to used,
so i am using 42000 "
Sir i dont know the exact single sqlstate which has to used, so i am using 42000
mysql>
mysql>
mysql>
mysql> CREATE TRIGGER prevent_total_update
  → BEFORE UPDATE ON Orders
  → FOR EACH ROW
  → BEGIN
  → IF NEW.TotalAmount <> OLD.TotalAmount THEN
  → SIGNAL SQLSTATE '42000' SET MESSAGE_TEXT = 'TotalAmount cant be
updated';
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' at
line 1
mysql>
mysql> END IF;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'END
IF;' at line 1
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'END'
at line 1
mysql> system echo "Question no 3.l"
Question no 3.l
mysql>
mysql> SELECT p.Name AS PharmacyName,
  → (SELECT COUNT(*)
  → FROM PharmacyMedicine pm
  → WHERE pm.PharmacyID = p.PharmacyID) AS TotalMedicines
  → FROM Pharmacy p;
+-----+-----+
| PharmacyName | TotalMedicines |
+-----+-----+
| HealthPlus Pharmacy | 0 |
| CareWell Pharmacy | 0 |
| Wellness Pharmacy | 0 |
| Healthy Life Pharmacy | 0 |
| PharmaCare | 0 |
+-----+-----+
5 rows in set (0.01 sec)

mysql>
mysql> system echo "Question 3.m"
Question 3.m
mysql>
mysql> SELECT p.Name AS PharmacyName, ph.Name AS PharmacistName
  → FROM Pharmacy p
  → LEFT JOIN Pharmacist ph ON p.PharmacyID = ph.PharmacyID;
+-----+-----+
| PharmacyName | PharmacistName |
+-----+-----+
| HealthPlus Pharmacy | NULL |
| CareWell Pharmacy | NULL |
| Wellness Pharmacy | NULL |
| Healthy Life Pharmacy | NULL |
| PharmaCare | NULL |
+-----+-----+
5 rows in set (0.00 sec)

mysql>
mysql>
mysql> system echo "-----"
-----
mysql>
mysql> system echo "Question no 4"
Question no 4
mysql>
mysql> system echo "-----"
-----
mysql>
mysql> system echo "procedure .a"
procedure .a
mysql>
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE GetPharmacistsByMedicineThreshold(IN medicineName
VARCHAR(100), IN threshold INT)
  → BEGIN
  → SELECT ph.Name AS PharmacistName, p.Name AS PharmacyName,
SUM(om.Quantity) AS TotalQuantity
  → FROM Pharmacist ph
  → JOIN Pharmacy p ON ph.PharmacyID = p.PharmacyID
  → JOIN PharmacyMedicine pm ON p.PharmacyID = pm.PharmacyID
  → JOIN Medicine m ON pm.MedicineID = m.MedicineID
  → WHERE m.Name = medicineName
  → GROUP BY ph.Name, p.Name
  → HAVING TotalQuantity > threshold;
  → END //
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> DELIMITER ;
mysql>
mysql>
mysql> system echo "procedure .b "
procedure .b
mysql>
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE GetPharmacistsByPrescriptionThreshold(IN threshold INT,
IN startDate DATE, IN endDate DATE)
  → BEGIN
  → SELECT ph.Name AS PharmacistName, p.Name AS PharmacyName,
COUNT(pr.PrescriptionID) AS TotalPrescriptions
  → FROM Pharmacist ph
  → JOIN Pharmacy p ON ph.PharmacyID = p.PharmacyID
  → JOIN Prescription pr ON p.PharmacyID = pr.PharmacyID
  → WHERE pr.Date BETWEEN startDate AND endDate
  → GROUP BY ph.Name, p.Name
  → HAVING TotalPrescriptions > threshold;
  → END //
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> DELIMITER ;
mysql>
mysql>
mysql>
```