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**Course : B.Tech CSE Core**

**Section : C**

**Semester : IV**

**Subject : Data Base Management System**

**Lab Assignment 1**

**-- Create the Customer table**

**CREATE TABLE Customer**

**(**

**Cust\_id INT PRIMARY KEY,**

**cust\_name VARCHAR(255) NOT NULL**

**);**

**-- Create the Item table**

**CREATE TABLE Item**

**(**

**item\_id INT PRIMARY KEY,**

**item\_name VARCHAR(255) NOT NULL,**

**price DECIMAL(10, 2) NOT NULL CHECK (price > 0)**

**);**

**-- Create the Sale table**

**CREATE TABLE Sale**

**(**

**bill\_no INT PRIMARY KEY,**

**bill\_date DATE NOT NULL,**

**cust\_id INT,**

**item\_id INT,**

**qty\_sold INT NOT NULL CHECK (qty\_sold > 0),**

**FOREIGN KEY (cust\_id) REFERENCES Customer(Cust\_id),**

**FOREIGN KEY (item\_id) REFERENCES Item(item\_id)**

**);**

**-- Insert sample data into the Customer table**

**(add more records to have around 10)**

**INSERT INTO Customer**

**(Cust\_id, cust\_name) VALUES**

**(1, 'Alice'),**

**(2, 'Bob'),**

**(3, 'Charlie'),**

**(4, 'David'),**

**(5, 'Eve');**

**-- Insert sample data into the Item table**

**(add more records to have around 10)**

**INSERT INTO Item**

**(item\_id, item\_name, price) VALUES**

**(101, 'Laptop', 1200.00),**

**(102, 'Mouse', 25.00),**

**(103, 'Keyboard', 75.00),**

**(104, 'Monitor', 300.00),**

**(105, 'Webcam', 50.00);**

**-- Insert sample data into the Sale table**

**(add more records to have around 10)**

**INSERT INTO Sale**

**(bill\_no, bill\_date, cust\_id, item\_id, qty\_sold) VALUES**

**(1, '2025-01-22', 1, 101, 1),**

**(2, '2025-01-22', 2, 102, 3),**

**(3, '2025-01-22', 1, 103, 1),**

**(4, '2025-01-22', 3, 104, 1),**

**(5, '2025-01-22', 4, 105, 2);**

**-- 3. List all the bills for the current date**

**with the customer names and item numbers.**

**SELECT**

**s.bill\_no,**

**s.bill\_date,**

**c.cust\_name,**

**i.item\_id**

**FROM**

**Sale s**

**JOIN**

**Customer c ON s.cust\_id = c.Cust\_id**

**JOIN**

**Item i ON s.item\_id = i.item\_id**

**WHERE**

**s.bill\_date = '2025-01-22';**

**-- 4. List the total bill details with the**

**quantity sold, price of the item, and the final amount.**

**SELECT**

**s.bill\_no,**

**s.qty\_sold,**

**i.price,**

**(s.qty\_sold \* i.price) AS final\_amount**

**FROM**

**Sale s**

**JOIN**

**Item i ON s.item\_id = i.item\_id;**

**-- 5. List the details of the customer who have bought**

**a product which has a price > 200.**

**SELECT**

**c.cust\_name,**

**i.item\_name,**

**i.price**

**FROM**

**Customer c**

**JOIN**

**Sale s ON c.Cust\_id = s.cust\_id**

**JOIN**

**Item i ON s.item\_id = i.item\_id**

**WHERE**

**i.price > 200;**

**-- 6. Give a count of how many products have been**

**bought by each customer.**

**SELECT**

**c.cust\_name,**

**SUM(s.qty\_sold) AS total\_products\_bought**

**FROM**

**Customer c**

**LEFT JOIN**

**Sale s ON c.Cust\_id = s.cust\_id**

**GROUP BY**

**c.cust\_name;**

**-- 7. Give a list of products bought by a customer**

**having cust\_id as 5.**

**SELECT**

**i.item\_name,**

**s.qty\_sold**

**FROM**

**Sale s**

**JOIN**

**Item i ON s.item\_id = i.item\_id**

**WHERE**

**s.cust\_id = 5;**

**-- 8. List the item details which are sold as of today.**

**SELECT**

**i.item\_name,**

**i.price,**

**SUM(s.qty\_sold) AS total\_quantity\_sold**

**FROM**

**Sale s**

**JOIN**

**Item i ON s.item\_id = i.item\_id**

**WHERE**

**s.bill\_date = '2025-01-22'**

**GROUP BY**

**i.item\_name, i.price;**