DEMO STATES

• DEMO CUSTOMERS

• DEMO ORDERS

• DEMO PRODUCTS

• DEMO\_ORDER\_ITEMS

Write SQL queries for the below mentioned requirements to extract:

1. Top 3 customers based on the amount spent.

SELECT TOP 3

C.Custome\_rID,

C.CUST\_First\_Name,

C.CUST\_Last\_Name,

SUM(O.ORDER\_TOTAL) AS TotalAmountSpent

FROM DEMO\_CUSTOMERS C

JOIN DEMO\_ORDERS O ON C.Customer\_ID = O.Customer\_ID

GROUP BY C.Customer\_ID, C.CUST\_First\_Name, C.CUST\_Last\_Name

ORDER BY TotalAmountSpent DESC;

1. Top 3 customers based on the number of orders.

SELECT TOP 3

C.CustomerI\_D,

C.CUST\_First\_Name,

C.CUST\_Last\_Name,

COUNT(O.Order\_ID) AS TotalOrders

FROM DEMO\_CUSTOMERS C

JOIN DEMO\_ORDERS O ON C.Customer\_ID = O.Customer\_ID

GROUP BY C.Customer\_ID, C.CUST\_First\_Name, C.CUST\_Last\_Name

ORDER BY TotalOrders DESC;

1. Top 3 products based on quantity sold.

SELECT TOP 3

P.Product\_ID,

P.Product\_Name,

SUM(OI.Quantity) AS TotalQuantitySold

FROM DEMO\_PRODUCTS P

JOIN DEMO\_ORDER\_ITEMS OI ON P.ProductID = OI.Product\_ID

GROUP BY P.ProductI\_D, P.Product\_Name

ORDER BY TotalQuantitySold DESC;

4. Write a query to capture the customer's last name, product names (he bought) and total quantity of each of them.

SELECT

C.CUST\_Last\_Name,

P.Product\_Name,

SUM(OI.Quantity) AS TotalQuantity

FROM DEMO\_CUSTOMERS C

JOIN DEMO\_ORDERS O ON C.Customer\_ID = O.Customer\_ID

JOIN DEMO\_ORDER\_ITEMS OI ON O.Order\_ID = OI.Order\_ID

JOIN DEMO\_PRODUCTS P ON OI.Product\_ID = P.Product\_ID

GROUP BY C.CUST\_Last\_Name, P.Product\_Name;

5. Transform the rows to columns for the result you get from Query #4 above.

SELECT

CUST\_Last\_Name,

MAX(CASE WHEN Product\_Name = 'Product1' THEN TotalQuantity END) AS Product1\_Quantity,

MAX(CASE WHEN Product\_Name = 'Product2' THEN TotalQuantity END) AS Product2\_Quantity,

MAX(CASE WHEN Product\_Name = 'Product3' THEN TotalQuantity END) AS Product3\_Quantity

FROM (

-- Query #4 goes here

) AS Subquery

GROUP BY CUST\_Last\_Name;

6. Which year had most orders?

SELECT

YEAR(Order\_TIMESTAMP) AS OrderYear,

COUNT(OrderI\_D) AS TotalOrders

FROM DEMO\_ORDERS

GROUP BY OrderYear

ORDER BY Total\_Orders DESC

LIMIT 1;

7. Draw an ER (entity-relationship) model for this database depicting tables, PK and FK (i.e., relationships between them) on a plain paper using pen/pencil. Share the screenshot (ensure picture is clearly visible) and share.

8. Which product category was most sold?

SELECT

PC.Category,

SUM(OI.Quantity) AS TotalQuantitySold

FROM DEMO\_PRODUCT\_CATEGORIES PC

JOIN DEMO\_ORDER\_ITEMS OI ON P.ProductID = OI.ProductID

GROUP BY PC.Category

ORDER BY TotalQuantitySold DESC

LIMIT 1;

9. Which product category took the second position in terms of quantity sold?

SELECT

PC.PRODUCT\_ID,

PC.Category,

SUM(OI.Quantity) AS TotalQuantitySold

FROM DEMO\_PRODUCT\_CATEGORIES PC

JOIN DEMO\_PRODUCTS P ON PC.CategoryID = P.CategoryID

JOIN DEMO\_ORDER\_ITEMS OI ON P.ProductID = OI.ProductID

GROUP BY PC.CategoryID, PC.CategoryName

ORDER BY TotalQuantitySold DESC

LIMIT 1 OFFSET 1;

10. Write a query to help rollup total quantity on customer and product (name).

SELECT

C.Customer\_ID,

C.CUST\_First\_Name,

C.CUST\_Last\_Name,

P.Product\_Name,

SUM(OI.Quantity) AS TotalQuantity

FROM DEMO\_CUSTOMERS C

JOIN DEMO\_ORDERS O ON C.Customer\_ID = O.Customer\_ID

JOIN DEMO\_ORDER\_ITEMS OI ON O.Order\_ID = OI.Order\_ID

JOIN DEMO\_PRODUCTS P ON OI.Product\_ID = P.Product\_ID

GROUP BY C.Customer\_ID, C.CUST\_First\_Name, C.CUST\_Last\_Name, P.Product\_Name;