

## Assignment-6

Q1: Create the tables described below:

### **Table Name: CLIENT\_MASTER**

**Description:** Used to store client information.

Column Name	Data Type	Size	Default	Attributes
CLIENTNO	Varchar	6		Primary Key / first letter must start with 'C'
NAME	Varchar	20		Not Null
ADDRESS1	Varchar	30		
ADDRESS2	Varchar	30		
CITY	Varchar	15		
PINCODE	Int	8		
STATE	Varchar	15		
BALDUE	Float	10,2		

### **Table Name: PRODUCT\_MASTER**

**Description:** Used to store product information.

Column Name	Data Type	Size	Default	Attributes
PRODUCTNO	Varchar	6		Primary Key / first letter must start with 'P'
DESCRIPTION	Varchar	15		Not Null
PROFITPERCENT	Decimal	4,2		Not Null
UNITMEASURE	Varchar	10		Not Null
QTYONHAND	Int	8		Not Null
REORDERLVL	Int	8		Not Null
SELLPRICE	Decimal	8,2		Not Null, Cannot be 0
COSTPRICE	Decimal	8,2		Not Null, Cannot be 0

### **Table Name: SALESMAN\_MASTER**

**Description:** Used to store salesman information working for the company.

Column Name	Data Type	Size	Default	Attributes
SALESMANNO	Varchar	6		Primary Key / first letter must start with 'S'
SALESMANNAME	Varchar	20		Not Null
ADDRESS1	Varchar	30		Not Null
ADDRESS2	Varchar	30		
CITY	Varchar	20		
PINCODE	Int	8		
STATE	Varchar	20		
SALAMT	Float	8,2		Not Null, Cannot be 0
TOTTOGET	Float	6,2		Not Null, Cannot be 0
YTDSALES	Float	6,2		Not Null
REMARKS	Varchar	60		

### **Table Name: SALES\_ORDER**

**Description:** Used to store client's orders.

Column Name	Data Type	Size	Default	Attributes
ORDERNO	Varchar	6		Primary Key / first letter must start with 'O'
CLIENTNO	Varchar	6		Foreign Key references ClientNo of Client_Master table
ORDERDATE	Date			Not Null
DELYADDR	Varchar	25		
SALESMANNO	Varchar	6		Foreign Key references SalesmanNo of Salesman_Master table
DELYTYPE	Char	1	F	Delivery: part (P) / full (F)
BILLYN	Char	1		
DELYDATE	Date			Cannot be less than Order_Date
ORDERSTATUS	Varchar	10		Values ('In Process', 'Fulfilled', 'BackOrder', 'Cancelled')

**Table Name: SALES\_ORDER\_DETAILS****Description:** Used to store client's orders with details of each product ordered.

Column Name	Date Type	Size	Default	Attributes
ORDERNO	Varchar	6		Foreign Key reference OrderNo of Sales_Order table
PRODUCTNO	Varchar	6		Foreign Key reference ProductNo of Product_Master table
QTYORDERED	Int	8		
QTYDISP	Int	8		
PRODUCTRATE	Float	10,2		

**2. Insert the following data into their respective tables:**

a. Re-insert the data generated for tables CLIENT\_MASTER, PRODUCT\_MASTER and SALESMAN\_MASTER.

b. Data for Sales\_Order table:

OrderNo	ClientNo	OrderDate	SalesmanNo	DelyType	BillyN	DelyDate	OrderStatus
O19001	C00001	12-June-04	S00001	F	N	20-July-02	In Process
O19002	C00002	25-June-04	S00002	P	N	27-June-02	Cancelled
O46865	C00003	18-Feb-04	S00003	F	Y	20-Feb-02	Fulfilled
O19003	C00001	03-Apr-04	S00001	F	Y	07-Apr-02	Fulfilled
O46866	C00004	20-May-04	S00002	P	N	22-May-02	Cancelled
O19008	C00005	24-May-04	S00004	F	N	26-July-02	In Process

c. Data for Sales\_Order\_Details table:

OrderNo	ProductNo	QtyOrdered	QtyDisp	ProductRate
O19001	P00001	4	4	525
O19001	P07965	2	1	8400
O19001	P07885	2	1	5250
O19002	P00001	10	0	525
O46865	P07868	3	3	3150
O46865	P07885	3	1	5250
O46865	P00001	10	10	525
O46865	P0345	4	4	1050
O19003	P03453	2	2	1050
O19003	P06734	1	1	12000
O46866	P07965	1	0	8400
O46866	P07975	1	0	1050
O19008	P00001	10	5	525
O19008	P07975	5	3	1050

3. Using the tables created previously generate the SQL statements for the operations mentioned below. The tables in user are as follows:

- a. Client\_Master
- b. Product\_Master
- c. Salesman\_Master
- d. Sales\_Order
- e. Sales\_Order\_Details

**i) Perform the following computations on table data:**

- a. List the names of all clients having 'a' as the second letter in their names.
- b. List the clients who stay in a city whose First letter is 'M'.
- c. List all clients who stay in 'Bangalore' or 'Mangalore'
- d. List all clients whose BalDue is greater than value 10000.
- e. List all information from the Sales\_Order table for orders placed in the month of June.
- f. List the order information for ClientNo 'C00001' and 'C00002'.
- g. List products whose selling price is greater than 500 and less than or equal to 750.
- h. List products whose selling price is more than 500. Calculate a new selling price as, original selling price\*.15. Rename the new column in the output of the above query as new\_price.
- i. List the names, city and state of clients who are not in the state of 'Maharashtra'.
- j. Count the total Int of orders.
- k. Calculate the average price of all the products.
- l. Determine the maximum and minimum product prices. Rename the output as max\_price and min\_price respectively.
- m. Count the Int of products having price less than or equal to 500.
- n. List all the products whose QtyOnHand is less than recorder level.

**ii) Exercise on Date Manipulation:**

- a. List the order Int and day on which clients placed their order.
- b. List the month (in alphabets) and date when the orders must be delivered.
- c. List the OrderDate in the format 'DD-Month-YY'. E.g. 12-February-02.
- d. List the date, 15 days after today's date.

**4. Exercises on using Having and Group By Clauses:**

- a. Print the description and total qty sold for each product.
- b. Find the value of each product sold.
- c. Calculate the average qty sold for each client that has a maximum order value of 15000.00.
- d. Find out the total of all the billed orders for the month of June.

**i) Exercise on Joins and Correction:**

- a. Find out the products, which have been sold to 'Ivan Bayross'.
- b. Find out the products and their quantities that will have to be delivered in the current month.
- c. List the ProductNo. and description of constantly sold (i.e. rapidly moving) products.
- d. Find the names of clients who have purchased 'Trousers'.
- e. List the products and orders from customers who have ordered less than 5 units of 'Pull Overs'.
- f. Find the products and their quantities for the orders placed by 'Ivan Bayross' and 'Mamta Muzumdar'.
- g. Find the products and their quantities for the orders placed by ClientNo 'C00001' and 'C00002'.

**ii) Exercise on Sub-queries:**

- a. Find the ProductNo and description of non-moving products i.e. products not being sold.
- b. List the customer Name, Address1, Address2, City and PinCode for the client who has placed order no 'O19001'.
- c. List the client names that have placed orders before the month of May, 02.
- d. List if the product 'Lycra Top' has been ordered by any client and print the Client\_no, Name to whom it was sold.
- e. List the names of clients who have placed orders worth Rs. 10000 or more.