Assignment_8

Q1: Create the tables described below:

Table Name: CLIENT_MASTER

Description: Used to store client information.

Column Name	Data Type	Size	Default	Attributes
CLIENT_NO	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		
BAL_DUE	Float	10,2		

Table Name: PRODUCT_MASTER

Description: Used to store product information.

Column Name	Data Type	Size	Default	Attributes
PRODUCT_NO	Varchar	6		Primary Key / first letter must start with 'P'
DESCRIPTION	Varchar	15		Not Null
PROFIT_PERCENT	Decimal	4.2		Not Null
UNIT_MEASURE	Varchar	10		Not Null
QTY_ON_HAND	Int	8		Not Null
REORDER_LEVL	Int	8		Not Null
SELL_PRICE	Decimal	8.2		Not Null, Cannot be 0
COST_PRICE	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
SALESMAN_NO	Varchar	6		Primary Key / first letter must start with 'S'
SALESMAN_NAME	Varchar	20		Not Null
ADDRESS1	Varchar	30		Not Null
ADDRESS2	Varchar	30		
CITY	Varchar	20		
PINCODE	Int	8		
STATE	Varchar	20		
SAL_AMT	Float	8,2		Not Null, Cannot be 0
TOT_TOGET	Float	6,2		Not Null, Cannot be 0
YTD_SALES	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
ORDER_NO	Varchar	6		Primary Key / first letter must start with 'O'
CLIENT_NO	Varchar	6		Foreign Key references ClientNo of Client_Master table
ORDER_DATE	Date			Not Null
DELY_ADDR	Varchar	25		
SALESMAN_NO	Varchar	6		Foreign Key references SalesmanNo of Salesman_Master table
DELY_TYPE	Char	1	F	Delivery: part (P) or full (F)
BILL_YorN	Char	1		
DELY_DATE	Date			Cannot be less than Order_Date
ORDER_STATUS	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	Data Type	Size	Default	Attributes
ORDER_NO	Varchar	6		Foreign Key reference OrderNo of Sales_Order table
PRODUCT_NO	Varchar	6		Foreign Key reference ProductNo of Product_Master table
QTY_ORDERED	Int	8		
QTY_DISPATCHED	Int	8		
PRODUCT_RATE	Float	10,2		

2. Insert the following data into their respective tables:

a. Insert the data into the tables CLIENT_MASTER, PRODUCT_MASTER and SALESMAN_MASTER.

b. Data for CLIENT_MASTER table:

Client_No	Name	Address1	Address2	City	PinCode	State	Bal_Due
C00001	Ivan Bayross	Address1	Address2	Mumbai	400001	Maharashtra	15000
C00002	Mamta Muzumdar	Address1	Address2	Madras	780001	Tamil Nadu	0
C00003	Chhaya Bankar	Address1	Address2	Mumbai	400057	Maharashtra	5000
C00004	Ashwini Joshi	Address1	Address2	Bangalore	560001	Karnataka	0
C00005	Hansei Colaco	Address1	Address2	Mumbai	400060	Maharashtra	2000
C00006	Deepak Sharma	Address1	Address2	Mangalore	560050	Karnataka	0

c. Data for PRODUCT_MASTER table:

Product_No	Description	Profit_ Percent	Unit_Measure	Qty_On_ Hand	Reorder_Lvl	Sell_Price	Cost_Price
P00001	T-Shirts	5	Piece	200	50	350	250
P0345	Shirts	6	Piece	150	50	500	350
P06734	Cotton Jeans	5	Piece	100	20	600	450
P07865	Jeans	5	Piece	100	20	750	500
P07868	Trousers	2	Piece	150	50	850	550
P07885	Pull Overs	2.5	Piece	80	30	700	450
P07965	Denim Shirts	4	Piece	100	40	350	250
P07975	Lycra Tops	5	Piece	70	30	300	175
P08865	Skirts	5	Piece	75	30	450	300

d. Data for SALESMAN_MASTER. table:

Salesman_No	Name	Address1	Address2	City	PinCode	State	Sal_Amt	Tgt_ToGet	Ytd_Sales	Remarks
S00001	Aman	A/14	Worli	Mumbai	400002	Maharashtra	3000	100	50	Good
S00002	Omkar	65	Nariman	Mumbai	400001	Maharashtra	3000	200	100	Good
S00003	Raj	P-7	Bandra	Mumbai	400032	Maharashtra	3000	200	100	Good
S00004	Ashish	A/5	Juhu	Mumbai	400044	Maharashtra	3500	200	150	Good

e. Data for Sales_Order table:

Order_No	Client_No	Order_Date	Salesman_No	Dely_Type	Bill_YorN	Dely_Date	Order_Status
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
019003	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

f. Data for Sales_Order_Details table:

Order_No	Product_No	Qty_Ordered	Qty_Dispatched	Product_Rate
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 generate the SQL statements for the operations mentioned below. The tables 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 Bal_Due 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 Client_No '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 number 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 number of products having price less than or equal to 500.
n. List all the products whose Qty_On_Hand is less than reorder level.

ii) Exercise on Date Manipulation:

a. List the order no. 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 Order_Date 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 Product_No. 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 Client_No ‘C00001’ and C00002’.

ii) Exercise on Sub-queries:

a. Find the Product_No 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.