SELF REVIEW QUSTIONS

READ THE QUESTIONS AND WRITE DOWN APPROPRIATE SQL STATEMENTS, AS ANSWERS.

1) **Create the tables described below:**
   a) **Table Name:** Client_master
      Description: Used to store client information.

Column Name	Date Type	Size	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	Number	8	
State	Varchar	15	
Bal_due	Number	10,2	

   b) **Table Name:** product_master
      Description: Used to store product information.

Column Name	Date Type	Size	Attributes
Product_no	Varchar	6	Primary Key / first letter must start with 'P'
Description	Varchar	15	Not Null
Profit_percent	Number	4,2	Not Null
Unit_measure	Varchar	10	Not Null
Qty_no_hand	Number	8	Not Null
Reorder_lvl	Number	8	Not Null
Sell_price	Number	8,2	Not Null, cannot be 0.
Cost_price	Number	8,2	Not Null, cannot be 0.

   c) **Table Name:** salesman_master
      Description: Used to store salesman working for the company.

Column Name	Date Type	Size	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	Varchar	8	
State	Varchar	20	
Sal_amt	Number	8,2	Not Null, cannot be 0.
Tgt_to_get	Number	6,2	Not Null, cannot be 0.
Ytd_sales	Number	6,2	Not Null
Remarks	Varchar	60	

d) **Table Name:** sale_order
   Description: Used to store client's orders

Column Name	Date Type	Size	Attributes
order_no	Varchar	6	Primary Key / first letter must start with 'O'
order_date	Date		
Client_no	Varchar	6	Foreign Key references client_no of client_master table
Dely_Addr	Varchar	25	
Salesman_no	Varchar	6	Foreign Key reference salesman_no of salesman_master table
Dely_type	Chart	1	Delivery : part(P) / full (F) Default 'F'
Billed_yn	Char	1	
Dely_date	Date		Cannot be less then order_date
Order_status	Varchar	10	Values ('In Process', 'Fulfilled', 'Back Order', 'Cancelled')

e) **Table Name:** sale_order_details
   Description: Used to store client's orders with details of each product ordered.

Column Name	Date Type	Size	Attributes
order_no	Varchar	6	Primary Key / Foreign Key references order_no of the sales_order table
Producr_no	Varchar	6	Primary Key / Foreign Key references order_no of the sales_order table
Qty_ordered	Number	8	
Qty_disp	Number	8	
Product_rate	Number	10,2	

2) **Insert the following data into their respective tables:**
   a) Date for **client_master** table:

Client No.	Name	City	Pincode	State	Bal. Due
C00001	Ivan Bayross	Bombay	400054	Maharastra	15000
C00002	Vandana Saitwal	Madras	780001	Tamil Nadu	0
C00003	Pramada Jaguste	Bombay	400057	Maharastra	5000
C00004	Basu Navindgi	Bombay	400056	Maharastra	0
C00005	Ravi Sreedharan	Delhi	100001	Delhi	2000
C00006	Rukmini	Bombay	400050	Maharastra	0

b) Data for **product_master** table:

Product no	Description	Profit percent	Uom	Qty on hand	Reorder level	Sell piece	Cost prose
P00001	1.44 Floppies	5	Piece	100	20	525	500
P03453	monitors	6	Piece	10	3	12000	11280
P06734	mouse	5	Piece	20	5	1050	1000
P07865	1.22 Floppies	5	Piece	100	20	525	500
P07868	keyboards	2	Piece	10	3	3150	3050
P07885	CD Drive	2.5	Piece	10	3	5250	5100
P07965	540 HHD	4	Piece	10	3	8400	8000
P07975	1.44 Drive	5	Piece	10	3	1050	1000
P08865	1.22 Drive	5	Piece	2	3	1050	1000

c) Data for **salesman_master** table:

Salesman no	Salesman name	Address 1	Address 2	City	Pincode	State	Salamt	Tet_t o get	Ytd sales	Remarks
S00001	Kiran	A/14	Worli	Bombay	400002	Maharastra	3000	100	50	Good
S00002	Manish	65	Nariman	Bombay	400001	Maharastra	3000	200	100	Good
S00003	Ravi	P-7	Bandra	Bombay	400032	Maharastra	3000	200	100	Good
S00004	Aashish	A/5	Juhu	Bombay	400044	Maharastra	3500	200	150	Good

d) Data for **sales_order** table:

Order no	Order date	Client no	Dely type	Bill yn	Salesman no	Dely date	Order status
O19001	12-Jan-96	C00001	F	N	S00001	20-Jan-96	In Process
O19002	25-Jan-96	C00002	P	N	S00002	27-Jan-96	Cancelled
O46865	18-Feb-96	C00003	F	Y	S00003	20-Feb-96	Fulfilled
O19003	03-Apr-96	C00001	F	Y	S00001	07-Apr-96	Fulfilled
O46866	20-May-96	C00004	P	N	S00002	22-May-96	Cancelled
O19008	24-May-96	C00005	F	N	S00004	26-May-96	In process

e) Data for the **sales_order_details** table:

Order no.	Product no.	Qty ordered	Qty disp	Product rate
019001	P00001	4	4	525
019001	P07965	2	1	8400
019001	P07885	2	1	5250
019002	P00001	10	0	525
046865	P07868	3	3	3150
046865	P07885	3	1	5250
046865	P00001	10	10	525
046865	P03453	4	4	1050
019003	P03453	2	2	1050
019003	P06734	1	1	12000
046866	P07965	1	0	8400
046866	P07975	1	0	1050
019008	P00001	10	5	525
019008	P07975	5	3	1050

3) **Exercises computation on table data:**
   a) Find the name of all clients having 'a' as the second letter in their names
   b) Find out the clients who stay in a city whose second letter is 'a'.
   c) Find the list of all client who stay in 'Bombay' or 'Delhi'.
   d) Print the list of client whose bal_due is greater then value 10000.
   e) Print the information from sales_oeder table for order placed in the month of January.
   f) Display the order information for client_no 'C00001' and 'C00002'.
   g) Find products whose selling price is greater than 2000 and less than or equal to 5000.
   h) Find products whose selling price is more than 1500. Calculate a new selling price as, original selling price * .15. Rename the new column in the above query as new_price.
   i) List the names, city and state of clients who r not in the state of 'Maharastra'.
   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 greater than or equal to 1500.
   n) Find all the products whose qty_no_nahd is less than recorder level.

4) **Exercise on Date Manipulation:**
   a) Display the order number and day on which clients placed their order.
   b) Display the month (in alphabets) and date when the order must be delivered.
   c) Display the order_date in the format 'DD-Month-yy'. e.g. 12-February-96.
   d) Find the date, 15 days after today's date.
   e) Find the number of days elapsed between today's date and the delivery date of the orders placed by the clients.

5) **Exercise 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 sum total of all the billed orders for the month of January.

6) **Exercise on Joins and Correlation:**
   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) Find the product_no and description of constantly sold i.e. rapidly moving products.
   d) Find the name of clients who have purchase 'CD Drive'.
   e) List the product_no and order_no of customers having qty_ordered less than 5 from the sales_order_details table for the product '1.44 Floppies'.
   f) Find the products and their quantities for the orders placed by 'lvan Bayross' and 'Vandana Saitwal'.
   g) Find the products and their quantities for the orders placed by client_no 'C00001' and 'C00002'.

7) **Exercise on Sub-queries:**
   a) Find the product_no and description of non-moving products i.e. products not being sold.
   b) Find the customer name, address1, address2, city and pin code for the client who has placed order no 'O19001'.
   c) Find the client names who have placed orders before the month of May'96.
   d) Find out if the product '1.44 Drive' has been ordered by any client and print the clint_no, name to whom it was sold.
   e) Find the names of clients who have placed orders worth Rs.10000 or more.

8) **Exercise on Constructing Sentences with data:**
   a) Print information from product_master, sales_order_detail tables in the following format for all the records:
      {Description} worth Rs. {total sales for the product} was sold.
   b) Print information from product_master, sales_order_detail tables in the following format for all the records:
      {Description} worth Rs. {total sales for the product} was ordered in the month of {order_date in month format}.
   c) Print information from client_master, product_master, sales_order tables in the following format for all the records:
      {cust_name} has placed order {order_no} on {order_date}.