2 Insert the following data into their respective tables using the SQL insert statement :

1 Data for **client_master** table :

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

2 Data for **product_master** table:

Product No	Description	Profit Percent	UOM	Qty on hand	Reorder Level	Sell Price	Cost Price
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 HDD	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

3. Data for **salesman_master** table :

Salesman No	Salesman Name	Address 1	Address 2	City	Pincode	State	Salamt	Tgt_To Get	Ytd sales	Remarks
S00001	Kiran	A/14	Worli	Bombay	400002	MAH	3000	100	50	Good
S00002	Manish	65	Nariman	Bombay	400001	MAH	3000	200	100	Good
S00003	Ravi	P-7	Bandra	Bombay	400032	MAH	3000	200	100	Good
S00004	Ashish	A/5	Juhu	Bombay	400044	MAH	3500	200	150	Good

4. Data for **sales_order** table :

S Order No	S 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	IP
O19002	25-jan-96	C00002	P	N	S00002	27-jan-96	C
O46865	18-feb-96	C00003	F	Y	S00003	20-feb-96	F
O19003	03-apr-96	C00001	F	Y	S00001	07-apr-96	F
O46866	20-may-96	C00004	P	N	S00002	22-may-96	C
O10008	24-may-96	C00005	F	N	S00004	26-may-96	I P

5. Data for **sales_order_details** table :

S Order No	Product No	Qty Ordered	Qty Disp	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	P03453	4	4	1050
O19003	P03453	2	2	1050
O19003	P06734	1	1	12000
O46866	P07965	1	0	8400
O46866	P07975	1	0	1050
O10008	P00001	10	5	525
O10008	P07975	5	3	1050

6. Data for **challan_header** table:

Challan No	S Order No	Challan Date	Billed
CH9001	O19001	12-dec-95	Y
CH6865	O46865	12-nov-95	Y
CH3965	O10008	12-oct-95	Y

7. Data for **challan_details** table:

Challan No	Product No	Qty Disp
CH9001	P00001	4
CH9001	P07965	1
CH9001	P07885	1
CH6865	P07868	3
CH6865	P03453	4
CH6865	P00001	10
CH3965	P00001	5
CH3965	P07975	2

Hands-On Exercise

a. Add the following record into the challan_details table and check if the record gets added or not. Note the observation for each of them

CH9001	P00001	5
P785341	P06734	9
P00001	CH9001	1

b. Drop the table product_master. Can the product_master be dropped. If not, note the error message.

c. Drop the table challan_details, challan_header and product_master in the specified sequence.

What conclusions can you draw, performing the above tasks?

SIXTY SELF REVIEW SQL SENTENCE CONSTRUCTS FOR PRACTICE

Single Table Retrieval :

1. Find out the names of all the clients.
2. Print the entire client_master table.
3. Retrieve the list of names and the cities of all the clients.
4. List the various products available from the product_master table.
5. Find the names of all clients having 'a' as the second letter in their names.
6. Find out the clients who stay in a city whose second letter is 'a'.
7. Find the list of all clients who stay in city 'Bombay' or city 'Delhi' or city 'Madras'.
8. List all the clients who are located in Bombay.
9. Print the list of clients whose bal_due are greater than value 10000.
10. Print the information from sales_order table of orders placed in the month of January.
11. Display the order information for client_no 'C00001' and 'C00002'.
12. Find the products with description as '1.44 Drive' and '1.22 Drive'.

13. Find the products whose selling price is greater than 2000 and less than or equal to 5000.
14. Find the products whose selling price is more than 1500 and also find the new selling price as original selling price * 15.
15. Rename the new column in the above query as new_price.
16. Find the products whose cost price is less than 1500.
17. List the products in sorted order of their description.
18. Calculate the square root of the price of each product.
19. Divide the cost of product '540 HDD' by difference between its price and 100.
20. List the names, city and state of clients not in the state of 'Maharashtra'.
21. List the product_no, description, sell_price of products whose description begin with letter 'M'.
22. List all the orders that were canceled in the month of March.

Set Functions and Concatenation :

23. Count the total number of orders.
24. Calculate the average price of all the products.
25. Calculate the minimum price of products.
26. Determine the maximum and minimum product prices. Rename the title as max_price and min_price respectively.
27. Count the number of products having price greater than or equal to 1500.
28. Find all the products whose qty_on_hand is less than reorder level.
29. Print the information of client_master, product_master, sales_order table in the following format for all the records :-
    {cust_name} has placed order {order_no} on {s_order_date}.

Having and Group By :

30. Print the description and total qty sold for each product.
31. Find the value of each product sold.
32. Calculate the average qty sold for each client that has a maximum order value of 15000.00.
33. Find out the total sales amount receivable for the month of jan. It will be the sum total of all the billed orders for the month.
34. Print the information of product_master, order_detail table in the following format for all the records :- {description} worth Rs. {total sales for the product} was sold.
35. Print the information of product_master, order_detail table in the following format for all the records :-
    {description} worth Rs. {total sales for the product} was ordered in the month of {s_order_date in month format}.

Joins and Correlations :

36. Find out the products which has been sold to 'Ivan Bayross'.
37. Find out the products and their quantities that will have to delivered in the current month.
38. Find the product_no and description of moving products.
39. Find the names of clients who have purchased 'CD Drive'.

40. List the product_no and s order_no of customers having qty_ordered less than 5 from the order details Table for the product '1.44 Floppies'.
41. Find the products and their quantities for the orders placed by 'Vandana Saitwal' and 'Ivan Bayross'.
42. Find the products and their quantities for the orders placed by client_no 'C00001' and 'C00002'.

Nested Queries :

43. Find the product_no and description of non-moving products.
44. Find the customer name, address1, address2, city and pincode for the client who has placed order no "O19001".
45. Find the client names who have placed orders before the month of May, 96.
46. Find out if product '1.44 Drive' is ordered by any client and print the client_no, name to whom it is was sold.
47. Find the names of clients who have placed orders worth Rs. 10000 or more.

Queries using Date :

48. Display the order number and day on which clients placed their order.
49. Display the month (in alphabets) and date when the order must be delivered.
50. Display the s_order_date in the format 'dd-month-yy'. e.g. 12-February-96.
51. Find the date, 15 days after today's date.
52. Find the number of days elapsed between today's date and the delivery date of the orders placed by the clients.

Table Updations :

53. Change the s_order_date of client_no 'C00001' to 24/07/96.
54. Change the selling price of '1.44 Floppy Drive' to Rs. 1150.00.
55. Delete the record with order number 'O19001' from the order table.
56. Delete all the records having delivery date before 10th July '96
57. Change the city of client_no 'C00005' to 'Bombay'.
58. Change the delivery date of order number 'O10008' to 16-08-96.
59. Change the bal_due of client_no 'C00001' to 1000.
60. Change the cost price of '1.22 Floppy Drive' to Rs. 950.00.