

## Database Management System Lab

### Assignment 2:

Create the following tables:

Table Name: **Client\_master**

| Column Name | Data Type | Size | Attributes   |
|-------------|-----------|------|--|
| Client_no   | Varchar2  | 6    | Primary key / 1 <sup>st</sup> letter must start with 'c' |
| Name        | Varchar2  | 20   | Not null   |
| City        | Varchar2  | 15   |  |
| Pincode     | Number    | 8    |  |
| State       | Varchar2  | 15   |  |
| Bal_due     | Number    | 10,2 |  |

Table Name: **Product\_master**

| Column Name    | Data Type | Size | Attributes   |
|----------------|-----------|------|--|
| Product_no     | Varchar2  | 6    | Primary key / 1 <sup>st</sup> letter must start with 'p' |
| Description    | Varchar2  | 15   | Not null   |
| Profit_percent | Varchar2  | 4,2  | Not null   |
| Unit_measure   | Varchar2  | 10   | Not null   |
| Qty_on_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                                    |

Table Name: **Salesman\_master**

| Column Name   | Data Type | Size | Attributes   |
|---------------|-----------|------|--|
| Salesman_no   | Varchar2  | 6    | Primary key / 1 <sup>st</sup> letter must start with 's' |
| Salesman_name | Varchar2  | 20   | Not null   |
| Address1      | Varchar2  | 10   | Not null   |
| Address1      | Varchar2  | 10   |  |
| City          | Varchar2  | 20   |  |
| Pincode       | Number    | 7    |  |
| State         | Varchar2  | 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       | Varchar2  | 20   |  |

Table name: **Sales\_order**

| Column Name    | Data Type | Size | Attributes   |
|----------------|-----------|------|--|
| Order_no       | Varchar2  | 6    | Primary key / 1 <sup>st</sup> letter must start with '0'     |
| Order_date     | date      |      |  |
| Client_no      | Varchar2  | 6    | Foreign key references client_no. of client_master           |
| Dely_addresses | Varchar2  | 25   |  |
| Salesman_no    | Varchar2  | 6    | Foreign key references salesman_no of salesman_master        |
| Dely_type      | Char      | 1    | Delivery: part(P) / full (F) default 'F'                     |
| Billed_yn      | Char      | 1    |  |
| Dely_date      | Date      |      | Cannot be less than order_date                               |
| Order_status   | Varchar2  | 10   | Values ('in process', 'fulfilled', 'backorder', 'cancelled') |

Table Name: **Sales\_order\_details**

| Column Name  | Data Type | Size | Attributes  |
|--------------|-----------|------|---|
| Order_no     | Varchar2  | 6    | Primary_key / foreign key ref. Order_no of the sales_order table.     |
| Product_no   | Varchar2  | 6    | Primary_key / foreign key ref. Product_no of the product_master table |
| Qty_ordered  | Number    | 8    |   |
| Qty_Disb     | Number    | 8    |   |
| Product_rate | Number    | 10,2 |   |

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

Data for CLIENT MASTER table:

| ClientNo | Name           | City      | Pincode | State       | BalDue |
|----------|----------------|-----------|---------|-------------|--------|
| C00001   | Ivan Bayross   | Mumbai    | 400054  | Maharashtra | 15000  |
| C00002   | Mamta Mazumdar | Madras    | 780001  | Tamil Nadu  | 0      |
| C00003   | Chhaya Bankar  | Mumbai    | 400057  | Maharashtra | 5000   |
| C00004   | Ashwini Joshi  | Bangalore | 560001  | Karnataka   | 0      |
| C00005   | Hansel Colaco  | Mumbai    | 400060  | Maharashtra | 2000   |
| C00006   | Deepak Sharma  | Mangalore | 560050  | Karnataka   | 0      |

Data for PRODUCT MASTER table:

| ProductNo | Description  | Profit Percent | Unit Measure | QtyOr<br>r<br>Hand | ReorderLvl | SellPrice | CostPrice |
|-----------|--------------|----------------|--------------|--------------------|------------|-----------|-----------|
| 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    | PuM-Overs    | 2.5            | Piece        | 80                 | 30         | 700       | 450       |
| P07965    | Denim Shirts | 4              | Piece        | 100                | 40         | 350       | 250       |
| P07975    | Lyers Tops   | 5              | Piece        | 70                 | 30         | 300       | 175       |
| P08865    | Skirts       | 5              | Piece        | 75                 | 30         | 450       | 300       |

Data for SALESMAN MASTER table:

| SalesmanNo | Name   | Address1 | Address2 | City   | PinCode | State       |
|------------|--------|----------|----------|--------|---------|-------------|
| S00001     | Aman   | A/14     | Worli    | Mumbai | 400002  | Maharashtra |
| S00002     | Omkar  | 65       | Nariman  | Mumbai | 400001  | Maharashtra |
| S00003     | Raj    | P-7      | Bandra   | Mumbai | 400032  | Maharashtra |
| S00004     | Ashish | A/5      | Juhu     | Mumbai | 400044  | Maharashtra |

| SalesmanNo | SalAmt | TgtToGet | YtdSales | Remarks |
|------------|--------|----------|----------|---------|
| S00001     | 3000   | 100      | 50       | Good    |
| S00002     | 3000   | 200      | 100      | Good    |
| S00003     | 3000   | 200      | 100      | Good    |
| S00004     | 3500   | 200      | 150      | Good    |

Data for SALES ORDER table:

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

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        |

**Write necessary SQL queries for the following:**

- 1) Find the names of all clients having 'a' as the second letter in their names.
- 2) Find out the clients who stay in a city whose second letter is 'a'.
- 3) Find the list of all clients who stay in 'Bombay' or 'Delhi'
- 4) Print the list of clients whose bal\_due is greater than value 10000.
- 5) Print the information from sales\_order table for orders placed in the month of January.
- 6) Display the order information for client\_no 'C00001' and 'C00002'.
- 7) Find products whose selling price is greater than 2000 and less than or equal to 5000.
- 8) 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.
- 9) List the names, city and state of clients who are not in the state of 'Maharashtra'.
- 10) Count the total number of orders.
- 11) Calculate the average price of all the products.
- 12) Determine the maximum and minimum product prices. Rename the output as max\_price and min\_price respectively.
- 13) Count the number of products having price greater than or equal to 1500.
- 14) Find all the products whose qty\_on\_hand is less than reorder level.
- 15) Display the order number and day on which clients placed their order.

