Central University of Karnataka Gulbarga

School of Computer Science

MCA Department (11ⁿᵈ semester)

Session: 2021-2023

Subject: Assignment 1 on SQL(DBMS)

Submitted to: Dr. Gururaj Mukarambi

Name   : Ravi kumar
Registration No : 2021mca14

1. Create the Tables described below:

Table Name: Client_Master (Description: Used to store client information)

Column Name	Data type	Size
Client No.	Varchar2	6
Name	Varchar2	20
Address	Varchar2	30
City	Varchar2	15
Pin code	Number	8
State	Varchar2	15
Balance due	Number	10,2

→Table After Creation

```
mysql> describe Client_master;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| client_no   | varchar(6)  | NO   | PRI | NULL    |       |
| name        | varchar(20) | YES  |     | NULL    |       |
| address     | varchar(30) | YES  |     | NULL    |       |
| city        | varchar(15) | YES  |     | NULL    |       |
| pin_code    | int         | YES  |     | NULL    |       |
| state       | varchar(15) | YES  |     | NULL    |       |
| balance_due | float(10,2) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)
```

→After Insertion Value in Table:

```
mysql> select * from client_master;
+-----------+---------+-----------+-----------+----------+----------+------------+
| client_no | name    | address   | city      | pin_code | state    | balance_due|
+-----------+---------+-----------+-----------+----------+----------+------------+
| c00001    | Deepak  | Sarai     | patna     | 844125   | Bihar    | 2309.99    |
| c00002    | Deepa   | Sarsai    | patna     | 844125   | Bihar    | 5309.99    |
| c00003    | farahan | Sasaram   | Gulbarga  | 894125   | up       | 45309.99   |
| c00004    | fahim   | Hajipur   | Gulbarga  | 867125   | bihar    | 4539.99    |
| c00005    | shiva   | warangal  | Gulbarga  | 456125   | Andhra   | 34539.99   |
| c00006    | satyam  | ncr       | delhi     | 456125   | Delhi    | 34539.99   |
| c00007    | ravi    | Patheda   | bhagwanpur| 856125   | patna    | 134539.98  |
| c00008    | Aman    | madhopur  | samastipur| 856125   | Karnatka | 134539.98  |
| c00009    | niten   | delihiwari| sundargadh| 766125   | Delhi    | 834540.00  |
| c00010    | sristi  | kadaganchi| Gulbarga  | 566125   | karnatka | 1834540.00 |
+-----------+---------+-----------+-----------+----------+----------+------------+
10 rows in set (0.00 sec)
```

2nd Table
: →**Table Name:Product_Master (Used to store product information)**

Column Name	Data type	Size
Product No.	Varchar2	6
Product desc.	Varchar2	15
Profit percent	Number	4, 2
Unit Measure	Varchar2	10

Qty on Hand	Number	8
Sell Price	Number	8, 2
Cost Price	Number	8,2

→After Table Creation

```
mysql> Describe p_mast;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| Product_no    | varchar(6)  | YES  |     | NULL    |       |
| Product_desc  | varchar(15) | YES  |     | NULL    |       |
| profit_percent| float(4,2)  | YES  |     | NULL    |       |
| Unit_measure  | varchar(10) | YES  |     | NULL    |       |
| Qty_on_head   | int         | YES  |     | NULL    |       |
| sell_price    | float(10,2) | YES  |     | NULL    |       |
| Cost_Price    | float(8,2)  | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
7 rows in set (0.01 sec)
```

→After Value Insertion

```
+------------+--------------+----------------+--------------+-------------+------------+------------+
| Product_no | Product_desc | profit_percent | Unit_measure | Qty_on_head | sell_price | Cost_Price |
+------------+--------------+----------------+--------------+-------------+------------+------------+
| p00001     | shirt        |           9.82 | 20           |         400 |     189.98 |     150.78 |
| p00002     | t-shirt      |          15.82 | 60           |         250 |     289.98 |     350.78 |
| p00003     | trousers     |          45.82 | 160          |         200 |    1289.98 |    1350.78 |
| p00006     | Jeans        |          55.82 | 2560         |         250 |     329.98 |     350.78 |
| p00007     | paint        |          55.82 | 1560         |        2150 |    3129.98 |    3150.78 |
| p00008     | CPU          |          15.82 | 160          |         200 |   13129.98 |   31150.78 |
| p00009     | kEYBOARD     |          15.82 | 260          |       54410 |   13129.98 |   31150.78 |
| p00010     | PLATES       |          15.82 | 60           |       54410 |   13129.98 |   31250.78 |
| p00004     | SOAP         |           5.82 | 1560         |         150 |      29.98 |      30.78 |
| p00005     | bucket       |           5.82 | 160          |         150 |     129.98 |     130.78 |
+------------+--------------+----------------+--------------+-------------+------------+------------+
10 rows in set (0.00 sec)
```

Queries for the above Tables:

A. Retrieving records from a Table.

(a) Find out the names of all the clients.

```
mysql> select name from client_master;
+----------+
| name     |
+----------+
| Deepak   |
| Deepa    |
| farahan  |
| fahim    |
| shiva    |
| satyam   |
| ravi     |
| Aman     |
| niten    |
| sristi   |
+----------+
10 rows in set (0.00 sec)
```

(b) Retrieve the entire contents of the Client _Master table.

```
mysql> select * from client_master;
+-----------+---------+------------+------------+----------+----------+------------+
| client_no | name    | address    | city       | pin_code | state    | balance_due |
+-----------+---------+------------+------------+----------+----------+------------+
| c00001    | Deepak  | Sarai      | patna      |   844125 | Bihar    |     2309.99 |
| c00002    | Deepa   | Sarsai     | patna      |   844125 | Bihar    |     5309.99 |
| c00003    | farahan | Sasaram    | Gulbarga   |   894125 | up       |    45309.99 |
| c00004    | fahim   | Hajipur    | Gulbarga   |   867125 | bihar    |     4539.99 |
| c00005    | shiva   | warangal   | Gulbarga   |   456125 | Andhra   |    34539.99 |
| c00006    | satyam  | ncr        | delhi      |   456125 | Delhi    |    34539.99 |
| c00007    | ravi    | Patheda    | bhagwanpur |   856125 | patna    |   134539.98 |
| c00008    | Aman    | madhopur   | samastipur |   856125 | Karnatka |   134539.98 |
| c00009    | niten   | delihiwari | sundargadh |   766125 | Delhi    |   834540.00 |
| c00010    | sristi  | kadaganchi | Gulbarga   |   566125 | karnatka |  1834540.00 |
+-----------+---------+------------+------------+----------+----------+------------+
10 rows in set (0.00 sec)
```

(c) Retrieve the list of names, city and the state of all the clients.

```
mysql> select name,city,state from client_master;
+---------+------------+----------+
| name    | city       | state    |
+---------+------------+----------+
| Deepak  | patna      | Bihar    |
| Deepa   | patna      | Bihar    |
| farahan | Gulbarga   | up       |
| fahim   | Gulbarga   | bihar    |
| shiva   | Gulbarga   | Andhra   |
| satyam  | delhi      | Delhi    |
| ravi    | bhagwanpur | patna    |
| Aman    | samastipur | Karnatka |
| niten   | sundargadh | Delhi    |
| sristi  | Gulbarga   | karnatka |
+---------+------------+----------+
10 rows in set (0.00 sec)
```

(d) List all the clients who are located in Gulbarga.

```
mysql> select * from client_master where city='gulbarga';
+-----------+---------+------------+----------+----------+----------+------------+
| client_no | name    | address    | city     | pin_code | state    | balance_due |
+-----------+---------+------------+----------+----------+----------+------------+
| c00003    | farahan | Sasaram    | Gulbarga |   894125 | up       |    45309.99 |
| c00004    | fahim   | Hajipur    | Gulbarga |   867125 | bihar    |     4539.99 |
| c00005    | shiva   | warangal   | Gulbarga |   456125 | Andhra   |    34539.99 |
| c00010    | sristi  | kadaganchi | Gulbarga |   566125 | karnatka |  1834540.00 |
+-----------+---------+------------+----------+----------+----------+------------+
4 rows in set (0.00 sec)
```

(e) List the various products available from the Product_Master Table.

```
mysql> select product_desc from product_master;
+--------------+
| product_desc |
+--------------+
| shirt        |
| t-shirt      |
| trousers     |
| Jeans        |
| paint        |
| CPU          |
| kEYBOARD     |
| PLATES       |
| SOAP         |
| bucket       |
+--------------+
10 rows in set (0.00 sec)
```

B. Updating records in a Table

(a) Change the city of Client No 'C00005' to Bangalore.

```
mysql> UPDATE client_master SET city='Banglore' WHERE client_no='c00005';
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from client_master where client_no='c00005';
+-----------+-------+---------+----------+----------+--------+-------------+
| client_no | name  | address | city     | pin_code | state  | balance_due |
+-----------+-------+---------+----------+----------+--------+-------------+
| c00005    | shiva | warangal| Banglore |   456125 | Andhra |    34539.99 |
+-----------+-------+---------+----------+----------+--------+-------------+
1 row in set (0.01 sec)
```

(b) Change the Balance due of client No 'C00001' to Rs. 2000

```
mysql> UPDATE client_master SET balance_due=2000.00 WHERE client_no='c00001';
Query OK, 1 row affected (0.38 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from client_master where client_no='c00001';
+-----------+--------+---------+-------+----------+-------+-------------+
| client_no | name   | address | city  | pin_code | state | balance_due |
+-----------+--------+---------+-------+----------+-------+-------------+
| c00001    | Deepak | Sarai   | patna |   844125 | Bihar |     2000.00 |
+-----------+--------+---------+-------+----------+-------+-------------+
1 row in set (0.00 sec)
```

(c) Change the cost price of Trousers to Rs. 950.00.

```
mysql> update product_master set cost_price=950.00 where product_desc='trousers';
Query OK, 1 row affected (0.26 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from product_master where product_desc='trousers';
+-----------+--------------+----------------+--------------+-------------+------------+------------+
| Product_no | Product_desc | profit_percent | Unit_measure | Qty_on_head | sell_price | Cost_Price |
+-----------+--------------+----------------+--------------+-------------+------------+------------+
| p00003    | trousers     |          45.82 | 160          |         200 |    1289.98 |     950.00 |
+-----------+--------------+----------------+--------------+-------------+------------+------------+
1 row in set (0.01 sec)
```

C. Deleting records in a Table.

(a) Delete all products from Product_Master where the quantity on hand is equal to 200.

```
mysql> delete from product_master where qty_on_head=200;
Query OK, 2 rows affected (0.22 sec)

mysql> select * from product_master;
+-----------+--------------+----------------+--------------+-------------+------------+------------+
| Product_no | Product_desc | profit_percent | Unit_measure | Qty_on_head | sell_price | Cost_Price |
+-----------+--------------+----------------+--------------+-------------+------------+------------+
| p00001    | shirt        |           9.82 | 20           |         400 |     189.98 |     150.78 |
| p00002    | t-shirt      |          15.82 | 60           |         250 |     289.98 |     350.78 |
| p00006    | Jeans        |          55.82 | 2560         |         250 |     329.98 |     350.78 |
| p00007    | paint        |          55.82 | 1560         |        2150 |    3129.98 |    3150.78 |
| p00009    | kEYBOARD     |          15.82 | 260          |       54410 |   13129.98 |   31150.78 |
| p00010    | PLATES       |          15.82 | 60           |       54410 |   13129.98 |   31250.78 |
| p00004    | SOAP         |           5.82 | 1560         |         150 |      29.98 |      30.78 |
| p00005    | bucket       |           5.82 | 160          |         150 |     129.98 |     130.78 |
+-----------+--------------+----------------+--------------+-------------+------------+------------+
8 rows in set (0.00 sec)
```

(b) Delete from Client_Master where the column state holds the value 'Karnataka'.

```
mysql> select * from client_master;
+-----------+---------+-----------+-----------+----------+----------+-------------+
| client_no | name    | address   | city      | pin_code | state    | balance_due |
+-----------+---------+-----------+-----------+----------+----------+-------------+
| c00001    | Deepak  | Sarai     | patna     |   844125 | Bihar    |     2000.00 |
| c00002    | Deepa   | Sarsai    | patna     |   844125 | Bihar    |     5309.99 |
| c00003    | farahan | Sasaram   | Gulbarga  |   894125 | up       |    45309.99 |
| c00004    | fahim   | Hajipur   | Gulbarga  |   867125 | bihar    |     4539.99 |
| c00005    | shiva   | warangal  | Banglore  |   456539 | Andhra   |    34539.99 |
| c00006    | satyam  | ncr       | delhi     |   456125 | Delhi    |    34539.99 |
| c00007    | ravi    | Patheda   | bhagwanpur|   856125 | patna    |   134539.98 |
| c00008    | Aman    | madhopur  | samastipur|   856125 | Karnatka |   134539.98 |
| c00009    | niten   | delihiwari| sundargadh|   766125 | Delhi    |   834540.00 |
| c00010    | sristi  | kadaganchi| Gulbarga  |   566125 | karnatka |  1834540.00 |
+-----------+---------+-----------+-----------+----------+----------+-------------+
10 rows in set (0.06 sec)

mysql> delete from client_master where state='karnatka';
Query OK, 2 rows affected (0.11 sec)

mysql> select * from client_master;
+-----------+---------+-----------+-----------+----------+--------+-------------+
| client_no | name    | address   | city      | pin_code | state  | balance_due |
+-----------+---------+-----------+-----------+----------+--------+-------------+
| c00001    | Deepak  | Sarai     | patna     |   844125 | Bihar  |     2000.00 |
| c00002    | Deepa   | Sarsai    | patna     |   844125 | Bihar  |     5309.99 |
| c00003    | farahan | Sasaram   | Gulbarga  |   894125 | up     |    45309.99 |
| c00004    | fahim   | Hajipur   | Gulbarga  |   867125 | bihar  |     4539.99 |
| c00005    | shiva   | warangal  | Banglore  |   456539 | Andhra |    34539.99 |
| c00006    | satyam  | ncr       | delhi     |   456125 | Delhi  |    34539.99 |
| c00007    | ravi    | Patheda   | bhagwanpur|   856125 | patna  |   134539.98 |
| c00009    | niten   | delihiwari| sundargadh|   766125 | Delhi  |   834540.00 |
+-----------+---------+-----------+-----------+----------+--------+-------------+
8 rows in set (0.00 sec)
```

D.Altering the Table structure.

(a) Add a column called 'Telephone' of data type 'number' and size = '10' to the Client Master
    Table.

```
mysql> alter table client_master add telephone int(10);
Query OK, 0 rows affected, 1 warning (1.95 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> describe client_Master;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| client_no   | varchar(6)  | NO   | PRI | NULL    |       |
| name        | varchar(20) | YES  |     | NULL    |       |
| address     | varchar(30) | YES  |     | NULL    |       |
| city        | varchar(15) | YES  |     | NULL    |       |
| pin_code    | int         | YES  |     | NULL    |       |
| state       | varchar(15) | YES  |     | NULL    |       |
| balance_due | float(10,2) | YES  |     | NULL    |       |
| telephone   | int         | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
8 rows in set (0.05 sec)
```

6

(b) Change the size of Sell Price column in Product_Master to 10, 2.

```
mysql> describe product_master;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Product_no     | varchar(6)  | YES  |     | NULL    |       |
| Product_desc   | varchar(15) | YES  |     | NULL    |       |
| profit_percent | float(4,2)  | YES  |     | NULL    |       |
| Unit_measure   | varchar(10) | YES  |     | NULL    |       |
| Qty_on_head    | int         | YES  |     | NULL    |       |
| sell_price     | float(8,2)  | YES  |     | NULL    |       |
| Cost_Price     | float(8,2)  | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
7 rows in set (0.05 sec)

mysql> alter table product_master modify sell_price float(10,2);
Query OK, 0 rows affected, 1 warning (0.32 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> describe product_master;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Product_no     | varchar(6)  | YES  |     | NULL    |       |
| Product_desc   | varchar(15) | YES  |     | NULL    |       |
| profit_percent | float(4,2)  | YES  |     | NULL    |       |
| Unit_measure   | varchar(10) | YES  |     | NULL    |       |
| Qty_on_head    | int         | YES  |     | NULL    |       |
| sell_price     | float(10,2) | YES  |     | NULL    |       |
| Cost_Price     | float(8,2)  | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)
```

E. Renaming the Table.

(a) Change the name of the Product_Master Table to P_Mast.

```
mysql> rename table product_master to P_Mast;
Query OK, 0 rows affected (1.60 sec)

mysql> show tables;
+-------------------------+
| Tables_in_sql_assignment |
+-------------------------+
| client_master           |
| p_mast                  |
+-------------------------+
2 rows in set (0.00 sec)
```