

Experiment-1

Title: Dataset creation and updating using File Handling Program

Objective: How to store and retrieve dataset in table format using file handling programming

Aim: To create and update a dataset using a file handling program and import it into MySQL database.

Theory: File handling allows us to read and write data into files. We can use Python/Java/C/C++ to create and update text or CSV files, which can then be imported into a MySQL table using the `LOAD DATA INFILE` command.

Code:

```
def add_student():

    print("Enter the details of student in the format (Roll no.,Name,Age,Department)=")

    with open("data.txt","r") as f:

        data=f.read()

        with open ("data.txt","a") as f:

            a=[input() for i in range (0,4)]

            if a[0] in data:

                print("Roll no. already exists")

                c=int(input("Do you want to enter student (0(No)/1(Yes))="))

                if(c==1):

                    add_student()

                else:

                    return 0

            else:

                f.write("\n")

                f.write(".".join(a))

                f.flush()

                d=int(input("Do you want to enter student (0(No)/1(Yes))="))

                if(d==1):

                    add_student()

                else:

                    return 0

def read():
```

```
print("Roll no. Name Age Department")
with open("data.txt", "r") as f:
    while True:
        q = f.readline()
        if q == "":
            break
        r = q.strip().split(",")
        for i in r:
            print(i, end=" ")
        print()

def search():
    b2=input("Enter the roll no. that you want to search=")
    with open("data.txt","r") as f:
        while(1):
            a2=f.readline()
            if (b2 in a2):
                r2=a2.replace(","," ")
                print(f"Yes the record exists = {r2}")
                return 0

def update():
    b=input("Enter the roll no. whose data you want to update=")
    b2=input("Enter the details of student again in format(Roll no,Name,Age,Department) seperating it with ,()")
    with open("data.txt","r") as f:
        lines=f.readlines()

    for i in range(len(lines)):
        if b in lines[i]:
            lines[i]=lines[i].replace(lines[i],b2)

    with open("data.txt","w") as f:
```

```
f.writelines(lines)

def delete():
    b=input("Enter the roll no. whose details you want to delete=")
    with open("data.txt","r") as f:
        lines=f.readlines()

    for i in range(len(lines)):
        if b in lines[i]:
            del lines[i]

    with open("data.txt","w") as f:
        f.writelines(lines)

while(1):
    print("Enter for number given choice: \n 1.Add a student record \n 2.View all records \n 3.Search a record by roll no. \n 4.Update a record \n 5.Delete a record \n 6.Exit")
    b=int(input())
    match b:
        case 1:
            add_student()
        case 2:
            read()
        case 3:
            search()
        case 4:
            update()
        case 5:
            delete()
        case 6:
            exit()
```

Output:

```
pu.ac.in\PDEU STUDY\Sem 3\DBMS Lab\Lab-1\main.py"
```

```
● Enter for number given choice:
```

- 1.Add a student record
- 2.View all records
- 3.Search a record by roll no.
- 4.Update a record
- 5.Delete a record
- 6.Exit

```
2
```

Roll no.	Name	Age	Department
24BCP128	Panav Patel	20	CSE
24BCP157	Jyot Jayswal	19	CSE
24BCP137	Aditya Sahoo	20	CSE

```
Enter for number given choice:
```

- 1.Add a student record
- 2.View all records
- 3.Search a record by roll no.
- 4.Update a record
- 5.Delete a record
- 6.Exit

```
6
```

Experiment-2

Title: DDL (Data Definition Language) commands

Objective: To understand how to create tables and insert different types of datatypes in a table.

Aim: To use various DDL commands like CREATE and INSERT.

Theory: DDL commands are used to define the database structure or schema. They do not manipulate data but affect table definitions and structures.

Code and Output exercise wise:

Exercise-1:

Code and Output:

```
mysql> 24bcpl28 Panav Patel;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '2
4bcpl28 Panav Patel' at line 1
mysql> create database 24bcpl28 Panav Patel
->;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'Panav Patel' at line 1
mysql> create database 24bcpl28_Panav_Patel;
Query OK, 1 row affected (0.01 sec)

mysql> use database 24bcpl28_Panav_Patel;
ERROR 1049 (42000): Unknown database 'database'
mysql> use 24bcpl28_Panav_Patel;
Database changed
mysql> create table CLIENT_MASTER (
->     CLIENTNO VARCHAR(6),
->     NAME VARCHAR(20),
->     ADDRESS1 VARCHAR(30),
->     ADDRESS2 VARCHAR(30),
->     CITY VARCHAR(15),
->     PINCODE INT,
->     STATE VARCHAR(15),
->     BALDUE DECIMAL(10,2)
-> );
Query OK, 0 rows affected (0.07 sec)

mysql> describe CLIENT_MASTER;
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CLIENTNO | varchar(6) | YES | | NULL | |
| NAME | varchar(20) | YES | | NULL | |
| ADDRESS1 | varchar(30) | YES | | NULL | |
| ADDRESS2 | varchar(30) | YES | | NULL | |
| CITY | varchar(15) | YES | | NULL | |
| PINCODE | int | YES | | NULL | |
| STATE | varchar(15) | YES | | NULL | |
| BALDUE | decimal(10,2) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.02 sec)
```

Code and Output:

```
mysql> 24bcp128 Panav Patel
->;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your My
SQL server version for the right syntax to use near '24bcp128 Panav Patel' at line 1
mysql> create table PRODUCT_MASTER (
->     PRODUCTNO VARCHAR(6),
->     DESCRIPTION VARCHAR(15),
->     PROFITPERCENT DECIMAL(4,2),
->     UNIT_MEASURE VARCHAR(10),
->     QTYONHAND INT,
->     REORDERLVL INT,
->     SELLPRICE DECIMAL(8,2),
->     COSTPRICE DECIMAL(8,2)
-> );
Query OK, 0 rows affected (0.04 sec)

mysql> describe PRODUCT_MASTER;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| PRODUCTNO | varchar(6) | YES | NULL | NULL |
| DESCRIPTION | varchar(15) | YES | NULL | NULL |
| PROFITPERCENT | decimal(4,2) | YES | NULL | NULL |
| UNIT_MEASURE | varchar(10) | YES | NULL | NULL |
| QTYONHAND | int | YES | NULL | NULL |
| REORDERLVL | int | YES | NULL | NULL |
| SELLPRICE | decimal(8,2) | YES | NULL | NULL |
| COSTPRICE | decimal(8,2) | YES | NULL | NULL |
+-----+-----+-----+-----+-----+
8 rows in set (0.01 sec)
```

Code and Output:

```
mysql> 24bcp128 Panav Patel;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your My
SQL server version for the right syntax to use near '24bcp128 Panav Patel' at line 1
mysql> create table SALESMAN_MASTER (
->     SALESMANNO VARCHAR(6),
->     SALESMANNAME VARCHAR(20),
->     ADDRESS1 VARCHAR(30),
->     ADDRESS2 VARCHAR(30),
->     CITY VARCHAR(20),
->     PINCODE INT,
->     STATE VARCHAR(20),
->     SALAMT FLOAT,
->     TGTTOGET DECIMAL,
->     YTDSALES DOUBLE(6,2),
->     REMARKS VARCHAR(60)
-> );
Query OK, 0 rows affected, 1 warning (0.04 sec)

mysql> desc SALESMAN_MASTER;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| SALESMANNO | varchar(6) | YES | NULL | NULL |
| SALESMANNAME | varchar(20) | YES | NULL | NULL |
| ADDRESS1 | varchar(30) | YES | NULL | NULL |
| ADDRESS2 | varchar(30) | YES | NULL | NULL |
| CITY | varchar(20) | YES | NULL | NULL |
| PINCODE | int | YES | NULL | NULL |
| STATE | varchar(20) | YES | NULL | NULL |
| SALAMT | float | YES | NULL | NULL |
| TGTTOGET | decimal(10,0) | YES | NULL | NULL |
| YTDSALES | double(6,2) | YES | NULL | NULL |
| REMARKS | varchar(60) | YES | NULL | NULL |
+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)
```

Exercise-2

a)

```
mysql> 24bcp128 Panav Patel;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24bcp128 Panav Patel' at line 1
mysql> insert into CLIENT_MASTER values
    -> ('C00001', 'Ivan bayross', 'NULL', 'NULL', 'Mumbai', 400054, 'Maharashtra', 15000),
    -> ('C00002', 'Mamta muzumdar', 'NULL', 'NULL', 'Madras', 780001, 'Tamil nadu', 0),
    -> ('C00003', 'Chhaya bankar', 'NULL', 'NULL', 'Mumbai', 400057, 'Maharashtra', 5000),
    -> ('C00004', 'Ashwini joshi', 'NULL', 'NULL', 'Bangalore', 560001, 'Karnataka', 0),
    -> ('C00005', 'Hansel colaco', 'NULL', 'NULL', 'Mumbai', 400060, 'Maharashtra', 2000),
    -> ('C00006', 'Deepak sharma', 'NULL', 'NULL', 'Mangalore', 560050, 'Karnataka', 0);
Query OK, 6 rows affected (0.03 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> select * from CLIENT_MASTER;
+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME      | ADDRESS1 | ADDRESS2 | CITY     | PINCODE | STATE    | BALDUE   |
+-----+-----+-----+-----+-----+-----+-----+
| C00001   | Ivan bayross | NULL     | NULL     | Mumbai   | 400054  | Maharashtra | 15000.00 |
| C00002   | Mamta muzumdar | NULL     | NULL     | Madras   | 780001  | Tamil nadu | 0.00     |
| C00003   | Chhaya bankar | NULL     | NULL     | Mumbai   | 400057  | Maharashtra | 5000.00  |
| C00004   | Ashwini joshi | NULL     | NULL     | Bangalore | 560001  | Karnataka | 0.00     |
| C00005   | Hansel colaco | NULL     | NULL     | Mumbai   | 400060  | Maharashtra | 2000.00  |
| C00006   | Deepak sharma | NULL     | NULL     | Mangalore | 560050  | Karnataka | 0.00     |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

b)

```
mysql> 24bcp128 Panav Patel;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24bcp128 Panav Patel' at line 1
mysql> insert into PRODUCT_MASTER values
    -> ('P00001', 'T-Shirt', 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 jeans', 4, 'Piece', 100, 40, 350, 250),
    -> ('P07975', 'Lycra tops', 5, 'Piece', 70, 30, 300, 175),
    -> ('P08865', 'Skirts', 5, 'Piece', 75, 30, 450, 300);
Query OK, 9 rows affected (0.01 sec)
Records: 9  Duplicates: 0  Warnings: 0

mysql> select * from PODUCT_MASTER;
ERROR 1146 (42S02): Table '24bcp128_panav_patel.poduct_master' doesn't exist
mysql> select * from PRODUCT_MASTER;
+-----+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | DESCRIPTION | PROFITPERCENT | UNIT_MEASURE | QTYONHAND | REORDERLVL | SELLPRICE | COSTPRICE |
+-----+-----+-----+-----+-----+-----+-----+
| P00001   | T-Shirt     | 5.00          | Piece       | 200        | 50         | 350.00    | 250.00    |
| P0345    | Shirts      | 6.00          | Piece       | 150        | 50         | 500.00    | 350.00    |
| P06734   | Cotton jeans | 5.00          | Piece       | 100        | 20         | 600.00    | 450.00    |
| P07865   | Jeans       | 5.00          | Piece       | 100        | 20         | 750.00    | 500.00    |
| P07868   | Trousers    | 2.00          | Piece       | 150        | 50         | 850.00    | 550.00    |
| P07885   | Pull Overs  | 2.50          | Piece       | 80         | 30         | 700.00    | 450.00    |
| P07965   | Denim jeans  | 4.00          | Piece       | 100        | 40         | 350.00    | 250.00    |
| P07975   | Lycra tops  | 5.00          | Piece       | 70         | 30         | 300.00    | 175.00    |
| P08865   | Skirts      | 5.00          | Piece       | 75         | 30         | 450.00    | 300.00    |
+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

c)

```

mysql> 24bcp128 Panav Patel
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for
the right syntax to use near '24bcp128 Panav Patel' at line 1
mysql> insert into SALESMAN_MASTER values
-> ('S00001', 'Aman', 'A/14', 'Worli', 'Mumbai', 400002, 'Maharashtra', 3000, 100, 50.00, 'Good'),
-> ('S00002', 'Omkar', '65', 'Nariman', 'Mumbai', 400001, 'Maharashtra', 3000, 200, 100.00, 'Good'),
-> ('S00003', 'Raj', 'P-7', 'Bandra', 'Mumbai', 400032, 'Maharashtra', 3000, 200, 100.00, 'Good'),
-> ('S00004', 'Ashish', 'A/5', 'Juhu', 'Mumbai', 400044, 'Maharashtra', 3500, 200, 150.00, 'Good');
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql> select * from SALESMAN_MASTER;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| SALESMANNO | SALESMANNAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | SALAMT | TGTTOGET | YTDSALES | REMARKS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| S00001 | Aman | A/14 | Worli | Mumbai | 400002 | Maharashtra | 3000 | 100 | 50.00 | Good |
| S00002 | Omkar | 65 | Nariman | Mumbai | 400001 | Maharashtra | 3000 | 200 | 100.00 | Good |
| S00003 | Raj | P-7 | Bandra | Mumbai | 400032 | Maharashtra | 3000 | 200 | 100.00 | Good |
| S00004 | Ashish | A/5 | Juhu | Mumbai | 400044 | Maharashtra | 3500 | 200 | 150.00 | Good |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> |

```

Experiment-3

Title: DDL commands with constraints.

Objective: To understand how update values as well as the attributes a table and also how to delete a given table and how to display the contents of the table conditionally.

Aim: To use various DDL commands like SELECT, UPDATE, WHERE, DELETE, ALTER and DROP.

Theory: These commands help us to manipulate data in a table also helps us display only the data that we want by giving constraints.

Code/Output:

1.Exercises on retrieving the data from

- Find out the names of all the clients.

Code and output:

```
mysql> 24BCP128 PANAV PATEL
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to
your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> select NAME FROM CLIENT_MASTER;
+-----+
| NAME |
+-----+
| Ivan bayross
| Mamta muzumdar
| Chhaya bankar
| Ashwini joshi
| Hansel colaco
| Deepak sharma
+-----+
6 rows in set (0.00 sec)
```

- Retrieve the entire contents of the Client_Master table.

Code and output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL
server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> SELECT * FROM CLIENT_MASTER;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME      | ADDRESS1 | ADDRESS2 | CITY     | PINCODE | STATE    | BALDUE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001   | Ivan bayross | NULL     | NULL     | Mumbai   | 400054  | Maharashtra | 15000.00 |
| C00002   | Mamta muzumdar | NULL     | NULL     | Madras   | 780001  | Tamil nadu | 0.00    |
| C00003   | Chhaya bankar  | NULL     | NULL     | Mumbai   | 400057  | Maharashtra | 5000.00 |
| C00004   | Ashwini joshi  | NULL     | NULL     | Bangalore | 560001  | Karnataka | 0.00    |
| C00005   | Hansel colaco  | NULL     | NULL     | Mumbai   | 400060  | Maharashtra | 2000.00 |
| C00006   | Deepak sharma  | NULL     | NULL     | Mangalore | 560050  | Karnataka | 0.00    |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

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

Code and output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL
server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> SELECT NAME,CITY,STATE FROM CLIENT_MASTER;
+-----+-----+-----+
| NAME      | CITY     | STATE    |
+-----+-----+-----+
| Ivan bayross | Mumbai | Maharashtra |
| Mamta muzumdar | Madras | Tamil nadu |
| Chhaya bankar | Mumbai | Maharashtra |
| Ashwini joshi | Bangalore | Karnataka |
| Hansel colaco | Mumbai | Maharashtra |
| Deepak sharma | Mangalore | Karnataka |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

d. List the various products available from the Product_Master table.

Code and output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL serv
er version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> SELECT * FROM PRODUCT_MASTER;
+-----+-----+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | DESCRIPTION | PROFITPERCENT | UNIT_MEASURE | QTYONHAND | REORDERLVL | SELLPRICE | COSTPRICE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| P00001 | T-Shirt | 5.00 | Piece | 200 | 50 | 350.00 | 250.00 |
| P0345 | Shirts | 6.00 | Piece | 150 | 50 | 500.00 | 350.00 |
| P06734 | Cotton jeans | 5.00 | Piece | 100 | 20 | 600.00 | 450.00 |
| P07865 | Jeans | 5.00 | Piece | 100 | 20 | 750.00 | 500.00 |
| P07868 | Trousers | 2.00 | Piece | 150 | 50 | 850.00 | 550.00 |
| P07885 | Pull Overs | 2.50 | Piece | 80 | 30 | 700.00 | 450.00 |
| P07965 | Denim jeans | 4.00 | Piece | 100 | 40 | 350.00 | 250.00 |
| P07975 | Lycra tops | 5.00 | Piece | 70 | 30 | 300.00 | 175.00 |
| P08865 | Skirts | 5.00 | Piece | 75 | 30 | 450.00 | 300.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

e. List all the clients who are located in Mumbai.

Code and output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL serv
er version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> SELECT * FROM CLIENT_MASTER WHERE CITY="Mumbai";
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME           | ADDRESS1 | ADDRESS2 | CITY      | PINCODE | STATE    | BALDUE   |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001   | Ivan bayross | NULL     | NULL     | Mumbai   | 400054  | Maharashtra | 15000.00 |
| C00003   | Chhaya bankar | NULL     | NULL     | Mumbai   | 400057  | Maharashtra | 5000.00  |
| C00005   | Hansel colaco | NULL     | NULL     | Mumbai   | 400060  | Maharashtra | 2000.00  |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

f. Find the names of salesman who have a salary equal to Rs.3000.

Code and output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> SELECT * FROM SALESMAN_MASTER WHERE SALAMT=3000;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| SALESMANNO | SALESMANNAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | SALAMT | TGTTOGET | YTDSALES | REMARKS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| S00001 | Aman | A/14 | Worli | Mumbai | 400002 | Maharashtra | 3000 | 100.00 | 50.00 | Good |
| S00002 | Omkar | 65 | Nariman | Mumbai | 400001 | Maharashtra | 3000 | 200.00 | 100.00 | Good |
| S00003 | Raj | P-7 | Bandra | Mumbai | 400032 | Maharashtra | 3000 | 200.00 | 100.00 | Good |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

l. Find the names of salesman who have a salary equal to Rs.3000.

- a. Change the city of ClientNo ‘C00005’ to ‘Bangalore’.

Code/Output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> update client_master set CITY = 'Bangalore' where CLIENTNO = 'C00005';
Query OK, 1 row affected (0.08 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from client_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | BALDUE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ivan bayross | NULL | NULL | Mumbai | 400054 | Maharashtra | 15000.00 |
| C00002 | Mamta muzumdar | NULL | NULL | Madras | 780001 | Tamil nadu | 0.00 |
| C00003 | Chhaya bankar | NULL | NULL | Mumbai | 400057 | Maharashtra | 5000.00 |
| C00004 | Ashwini joshi | NULL | NULL | Bangalore | 560001 | Karnataka | 0.00 |
| C00005 | Hansel colaco | NULL | NULL | Bangalore | 400060 | Maharashtra | 2000.00 |
| C00006 | Deepak sharma | NULL | NULL | Mangalore | 560050 | Karnataka | 0.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

- b. Change the BalDue of ClientNo ‘C00001’ to Rs.1000.

Code/Output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> update client_master set BALDUE = 1000 where CLIENTNO = 'C00001';
Query OK, 1 row affected (0.03 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from client_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | BALDUE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ivan bayross | NULL | NULL | Mumbai | 400054 | Maharashtra | 1000.00 |
| C00002 | Mamta muzumdar | NULL | NULL | Madras | 780001 | Tamil nadu | 0.00 |
| C00003 | Chhaya bankar | NULL | NULL | Mumbai | 400057 | Maharashtra | 5000.00 |
| C00004 | Ashwini joshi | NULL | NULL | Bangalore | 560001 | Karnataka | 0.00 |
| C00005 | Hansel colaco | NULL | NULL | Bangalore | 400060 | Maharashtra | 2000.00 |
| C00006 | Deepak sharma | NULL | NULL | Mangalore | 560050 | Karnataka | 0.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

c. Change the cost price of 'Trousers' to rs.950.00.

Code/Output:

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> update product_master set COSTPRICE = 950 where DESCRIPTION = 'Trousers';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from product_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | DESCRIPTION | PROFITPERCENT | UNIT_MEASURE | QTYONHAND | REORDERLVL | SELLPRICE | COSTPRICE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| P00001 | T-Shirt | 5.00 | Piece | 200 | 50 | 350.00 | 250.00 |
| P0345 | Shirts | 6.00 | Piece | 150 | 50 | 500.00 | 350.00 |
| P06734 | Cotton jeans | 5.00 | Piece | 100 | 20 | 600.00 | 450.00 |
| P07865 | Jeans | 5.00 | Piece | 100 | 20 | 750.00 | 500.00 |
| P07868 | Trousers | 2.00 | Piece | 150 | 50 | 850.00 | 950.00 |
| P07885 | Pull Overs | 2.50 | Piece | 80 | 30 | 700.00 | 450.00 |
| P07965 | Denim jeans | 4.00 | Piece | 100 | 40 | 350.00 | 250.00 |
| P07975 | Lycra tops | 5.00 | Piece | 70 | 30 | 300.00 | 175.00 |
| P08865 | Skirts | 5.00 | Piece | 75 | 30 | 450.00 | 300.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

d. Change the city of the salesman to Pune.

Code/Output:

```
mysql> 24bcpl28 Panav Patel;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24bcpl28 Panav Patel' at line 1
mysql> update salesman_master set CITY = 'PUNE';
Query OK, 4 rows affected (0.01 sec)
Rows matched: 4  Changed: 4  Warnings: 0

mysql> select * from salesman_master;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| SALESMANNO | SALESMANNAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | SALAMT | TGTTOGET | YTDSALES | REMARKS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| S00001 | Aman | A/14 | Worli | PUNE | 400002 | Maharashtra | 3000 | 100 | 50.00 | Good |
| S00002 | Omkar | 65 | Nariman | PUNE | 400001 | Maharashtra | 3000 | 200 | 100.00 | Good |
| S00003 | Raj | P-7 | Bandra | PUNE | 400032 | Maharashtra | 3000 | 200 | 100.00 | Good |
| S00004 | Ashish | A/5 | Juhu | PUNE | 400044 | Maharashtra | 3500 | 200 | 150.00 | Good |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

2.Exercises on deleting records in a table

a. Delete all salesman from the Salesman_Master whose salaries are equal to Rs.3500.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> delete from salesman_master where SALAMT = 3500;
Query OK, 1 row affected (0.01 sec)

mysql> select * from salesman_master;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| SALESMANNO | SALESMANNAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | SALAMT | TGTTOGET | YTDSALES | REMARKS |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| S00001 | Aman | A/14 | Worli | PUNE | 400002 | Maharashtra | 3000 | 100 | 50.00 | Good |
| S00002 | Omkar | 65 | Nariman | PUNE | 400001 | Maharashtra | 3000 | 200 | 100.00 | Good |
| S00003 | Raj | P-7 | Bandra | PUNE | 400032 | Maharashtra | 3000 | 200 | 100.00 | Good |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

b. Delete all products from Product_Master where the quantity on hand is equal to 100.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> delete from Product_master where QTYONHAND = 100;
Query OK, 3 rows affected (0.01 sec)

mysql> select * from Product_master;
+-----+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | DESCRIPTION | PROFITPERCENT | UNIT_MEASURE | QTYONHAND | REORDERLVL | SELLPRICE | COSTPRICE |
+-----+-----+-----+-----+-----+-----+-----+
| P00001 | T-Shirt | 5.00 | Piece | 200 | 50 | 350.00 | 250.00 |
| P0345 | Shirts | 6.00 | Piece | 150 | 50 | 500.00 | 350.00 |
| P07865 | Jeans | 5.00 | Piece | 100 | 20 | 600.00 | 450.00 |
| P07868 | Trousers | 2.00 | Piece | 150 | 50 | 850.00 | 950.00 |
| P07885 | Pull Overs | 2.50 | Piece | 80 | 30 | 700.00 | 450.00 |
| P07975 | Lycra tops | 5.00 | Piece | 70 | 30 | 300.00 | 175.00 |
| P08865 | Skirts | 5.00 | Piece | 75 | 30 | 450.00 | 300.00 |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

c. Delete from Client_Master where the column state holds the value ‘Tamil Nadu’.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your
MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> delete from Client_master where STATE = 'Tamil Nadu';
Query OK, 1 row affected (0.01 sec)

mysql> select * from Client_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | BALDUE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ivan bayross | NULL | NULL | Mumbai | 400054 | Maharashtra | 1000.00 |
| C00003 | Chhaya bankar | NULL | NULL | Mumbai | 400057 | Maharashtra | 5000.00 |
| C00004 | Ashwini joshi | NULL | NULL | Bangalore | 560001 | Karnataka | 0.00 |
| C00005 | Hansel colaco | NULL | NULL | Bangalore | 400060 | Maharashtra | 2000.00 |
| C00006 | Deepak sharma | NULL | NULL | Mangalore | 560050 | Karnataka | 0.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

3. Exercise on altering the table structure.

a. Add a column called ‘Telephone’ of data type integer to the Client_Master table.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL se
rver version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> alter table Client_master add column TELEPHONE INT;
Query OK, 0 rows affected (0.19 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from Client_master;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | BALDUE | TELEPHONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ivan bayross | NULL | NULL | Mumbai | 400054 | Maharashtra | 1000.00 | NULL |
| C00003 | Chhaya bankar | NULL | NULL | Mumbai | 400057 | Maharashtra | 5000.00 | NULL |
| C00004 | Ashwini joshi | NULL | NULL | Bangalore | 560001 | Karnataka | 0.00 | NULL |
| C00005 | Hansel colaco | NULL | NULL | Bangalore | 400060 | Maharashtra | 2000.00 | NULL |
| C00006 | Deepak sharma | NULL | NULL | Mangalore | 560050 | Karnataka | 0.00 | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

b. Change the size of SellPrice column in Product_Master to 10, 2.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL se
rver version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> alter table Product_master modify column SELLPRICE DECIMAL(10,2);
Query OK, 6 rows affected (0.09 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> select * from Product_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | DESCRIPTION | PROFITPERCENT | UNIT_MEASURE | QTYONHAND | REORDERLVL | SELLPRICE | COSTPRICE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| P00001 | T-Shirt | 5.00 | Piece | 200 | 50 | 350.00 | 250.00 |
| P0345 | Shirts | 6.00 | Piece | 150 | 50 | 500.00 | 350.00 |
| P07868 | Trousers | 2.00 | Piece | 150 | 50 | 850.00 | 950.00 |
| P07885 | Pull Overs | 2.50 | Piece | 80 | 30 | 700.00 | 450.00 |
| P07975 | Lycra tops | 5.00 | Piece | 70 | 30 | 300.00 | 175.00 |
| P08865 | Skirts | 5.00 | Piece | 75 | 30 | 450.00 | 300.00 |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> desc Product_master;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| PRODUCTNO | varchar(6) | YES | | NULL |
| DESCRIPTION | varchar(15) | YES | | NULL |
| PROFITPERCENT | decimal(4,2) | YES | | NULL |
| UNIT_MEASURE | varchar(10) | YES | | NULL |
| QTYONHAND | int | YES | | NULL |
| REORDERLVL | int | YES | | NULL |
| SELLPRICE | decimal(10,2) | YES | | NULL |
| COSTPRICE | decimal(8,2) | YES | | NULL |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.03 sec)
```

4. Exercise on deleting the table structure along with the data.

- a. Destroy the table Client_Master along with its data.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '24BCP128 PANAV PATEL' at line 1
mysql> select * from Client_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CLIENTNO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE | BALDUE | TELEPHONE |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ivan bayross | NULL | NULL | Mumbai | 400054 | Maharashtra | 1000.00 | NULL |
| C00003 | Chhaya bankar | NULL | NULL | Mumbai | 400057 | Maharashtra | 5000.00 | NULL |
| C00004 | Ashwini joshi | NULL | NULL | Bangalore | 560001 | Karnataka | 0.00 | NULL |
| C00005 | Hansel colaco | NULL | NULL | Bangalore | 400060 | Maharashtra | 2000.00 | NULL |
| C00006 | Deepak sharma | NULL | NULL | Mangalore | 560050 | Karnataka | 0.00 | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> drop table Client_master;
Query OK, 0 rows affected (0.05 sec)

mysql> select * from Client_master;
ERROR 1146 (42S02): Table '24bcp128_panav_patel.client_master' doesn't exist
```

5. Exercise on renaming the table.

- a. Change the name of the Salesman_Master to sman_mast.

```
mysql> 24BCP128 PANAV PATEL;
ERROR 1064 (42000): You have an error in your SQL
syntax; check the manual that corresponds to your
MySQL server version for the right syntax to use
near '24BCP128 PANAV PATEL' at line 1
mysql> SHOW TABLES;
+-----+
| Tables_in_24bcp128_panav_patel |
+-----+
| product_master
| salesman_master
+-----+
2 rows in set (0.00 sec)

mysql> rename table salesman_master to sman_mast;
Query OK, 0 rows affected (0.05 sec)

mysql> show tables;
+-----+
| Tables_in_24bcp128_panav_patel |
+-----+
| product_master
| sman_mast
+-----+
2 rows in set (0.00 sec)
```