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| --- | --- | --- | --- | --- | --- |
| **Expt. No.** | **Experiment Name** | **Date of Performance** | **Date of Checking** | **Marks** | **Signature** |
| 2. | Creation of Database/Tables and Insertion of data. | 08.04.21 |  |  |  |
| 3. | Write queries for retrieving records from table using SELECT command and WHERE clause. | 15.04.21 |  |  |  |
| 4. | Write SQL commands for implementing ALTER, UPDATE and DELETE. | 22.04.21 |  |  |  |
| 5. | Write the queries to implement the concept of Integrity Constraints like Primary Key, Foreign Key, NOT NULL to the tables. | 20.05.21 |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |



# AIM: Creation of Database / Tables and Insertion of data. Tools Used:

1. MariaDB

# Creation of Table:

1. **Table Name:** CLIENT\_MASTER
2. **Description:** Used to store Client Information

# Commands used for Creating Table:

 CREATE TABLE CLIENT\_MASTER (

 CLIENT\_NO CHAR(6),

 NAME VARCHAR(20),

 ADDRESS1 VARCHAR(30),

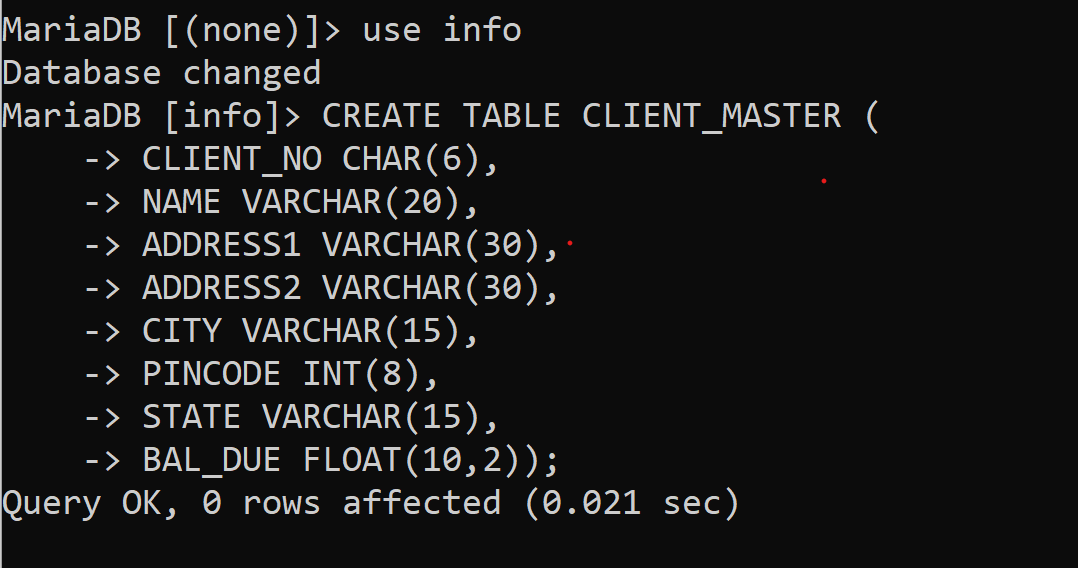
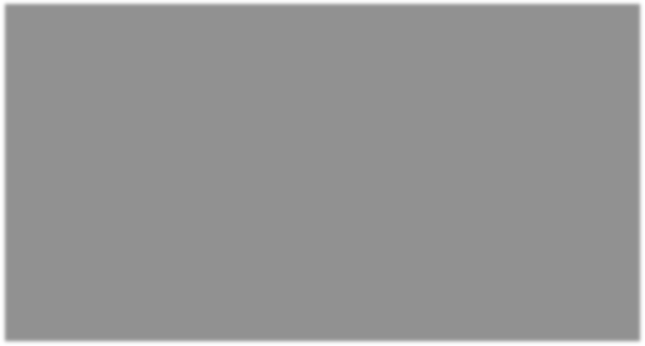
 ADDRESS2 VARCHAR(30),

 CITY VARCHAR(15),

 PINCODE INT(8),

 STATE VARCHAR(15),

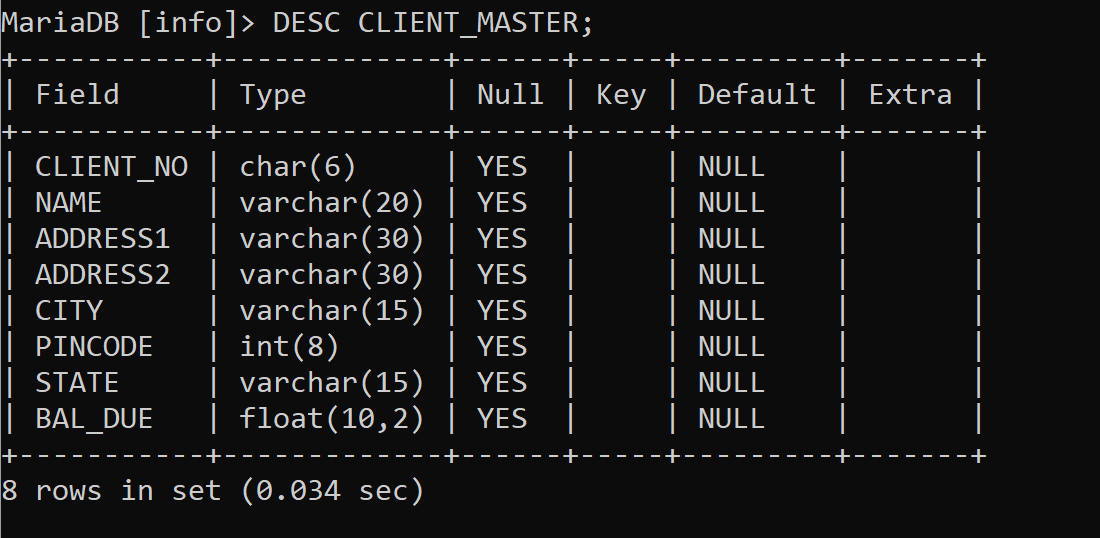
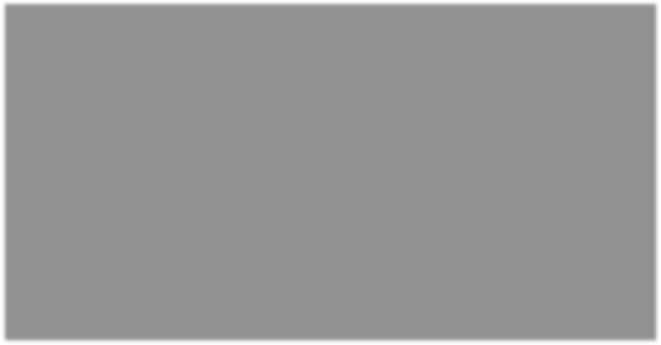
 BAL\_DUE FLOAT(10,2));



# Describing Schema of the Table:

**Commands used**:

 DESCRIBE CLIENT\_MASTER or DESC CLIENT\_MASTER;



# Creation of Table:

1. **Table Name:** PRODUCT\_MASTER
2. **Description:** Used to store Product Information of the Client

# Commands used for Creating Table:

 CREATE TABLE PRODUCT\_MASTER (

 PRODUCT\_NO VARCHAR(6),

 DESCRIPTION VARCHAR(15),

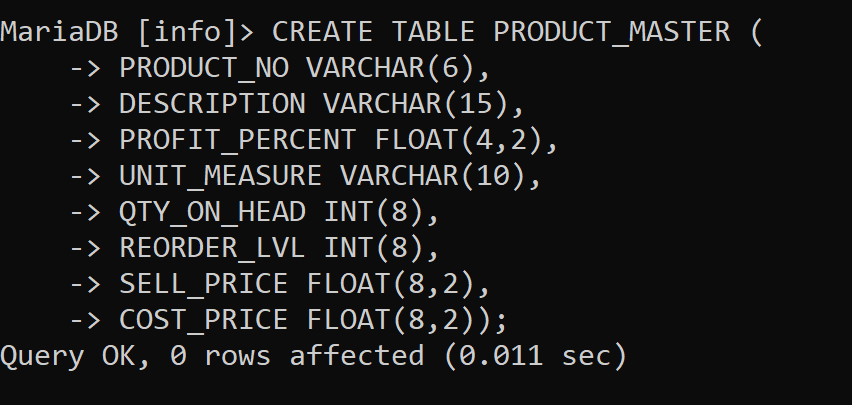
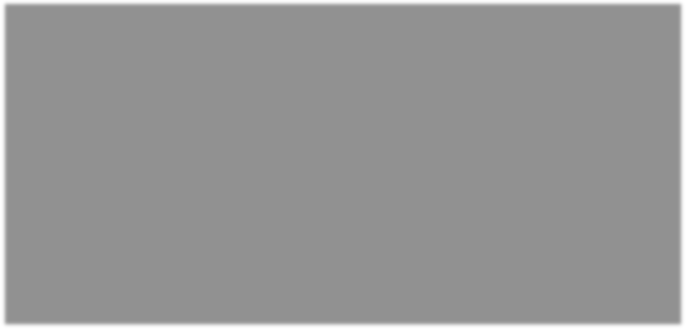
 PROFIT\_PERCENT FLOAT(4,2),

 UNIT\_MEASURE VARCHAR(10),

 QTY\_ON\_HEAD INT(8),

 REORDER\_LVL INT(8),

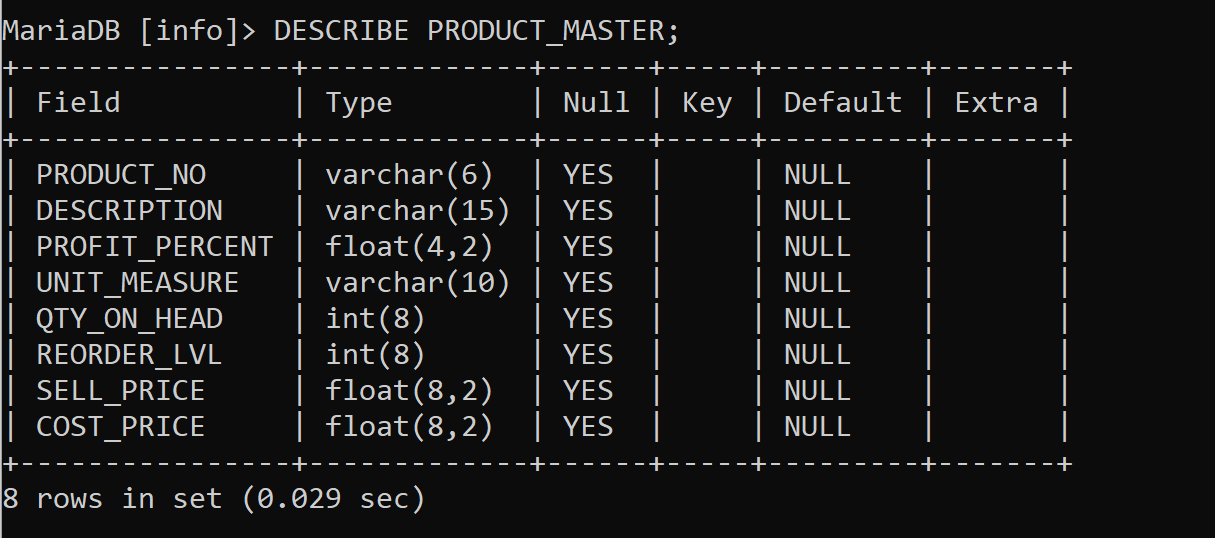
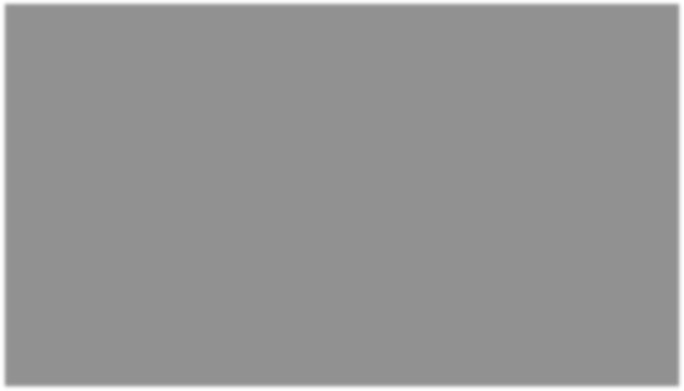
 SELL\_PRICE FLOAT(8,2),



 COST\_PRICE FLOAT(8,2));

# Describing Schema of the Table:

**Commands used**:



* DESCRIBE PRODUCT\_MASTER or DESC PRODUCT\_MASTER;

# Creation of Table:

1. **Table Name:** SALESMAN\_MASTER
2. **Description:** Used to store Salesman Working Informatio

# Commands for Creating Table:

 CREATE TABLE SALESMAN\_MASTER (

 SALESMAN\_NO VARCHAR(6),

 SALESMAN\_NAME VARCHAR(20),

 ADDRESS1 VARCHAR(30),

 ADDRESS2 VARCHAR(30),

 CITY VARCHAR(20),

 PINCODE INT(8),

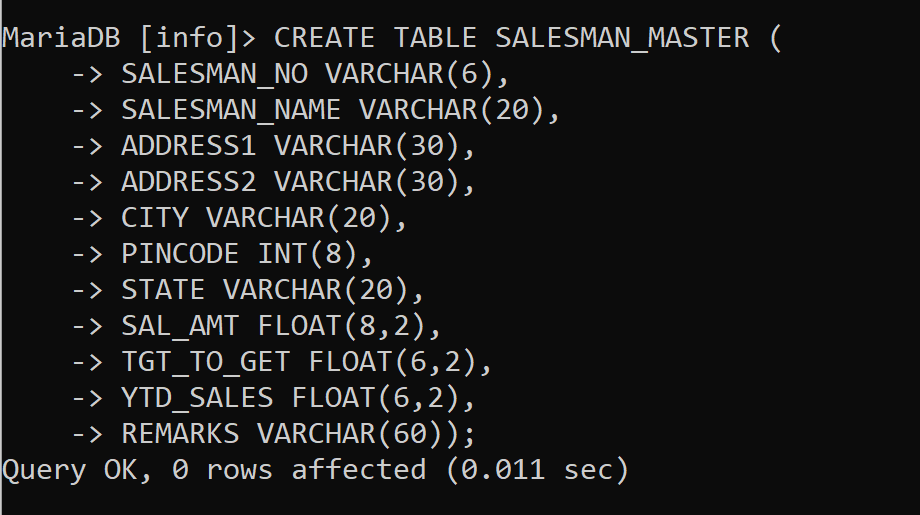
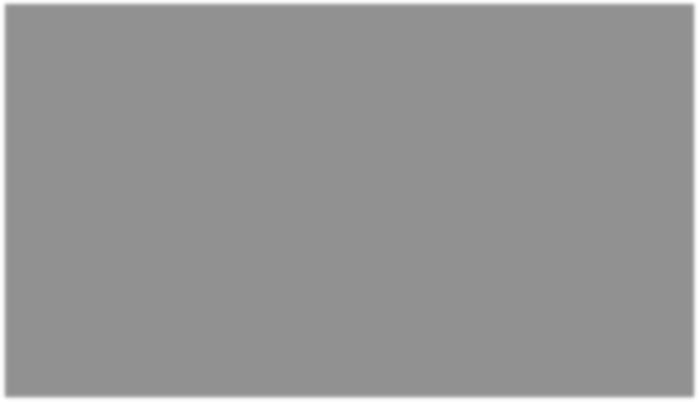
 STATE VARCHAR(20),

 SAL\_AMT FLOAT(8,2),

 TGT\_TO\_GET FLOAT(6,2),

 YTD\_SALES FLOAT(6,2),

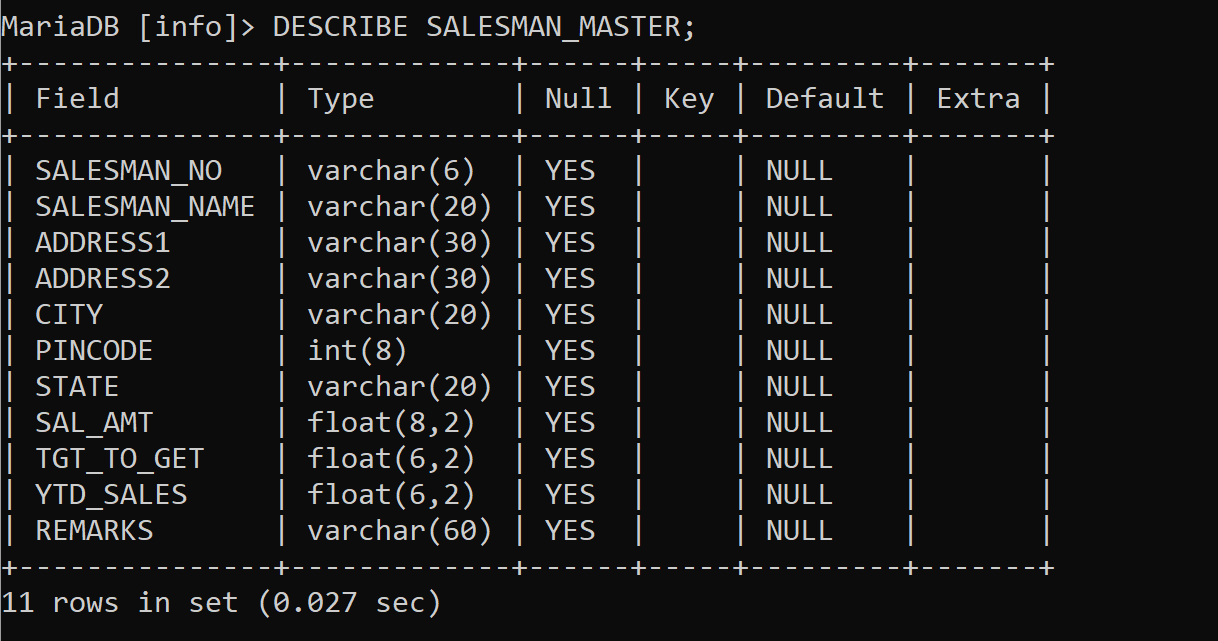
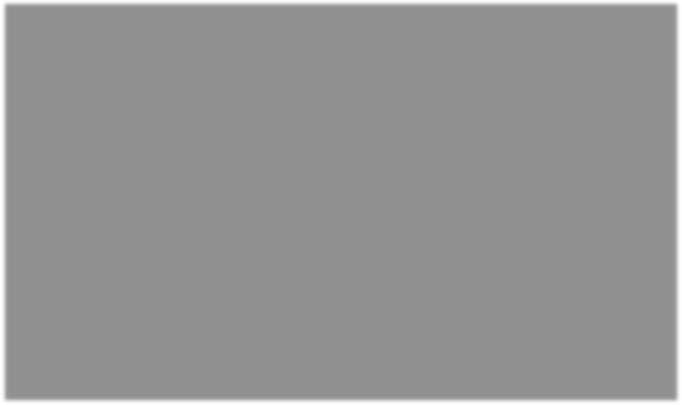
 REMARKS VARCHAR(60));



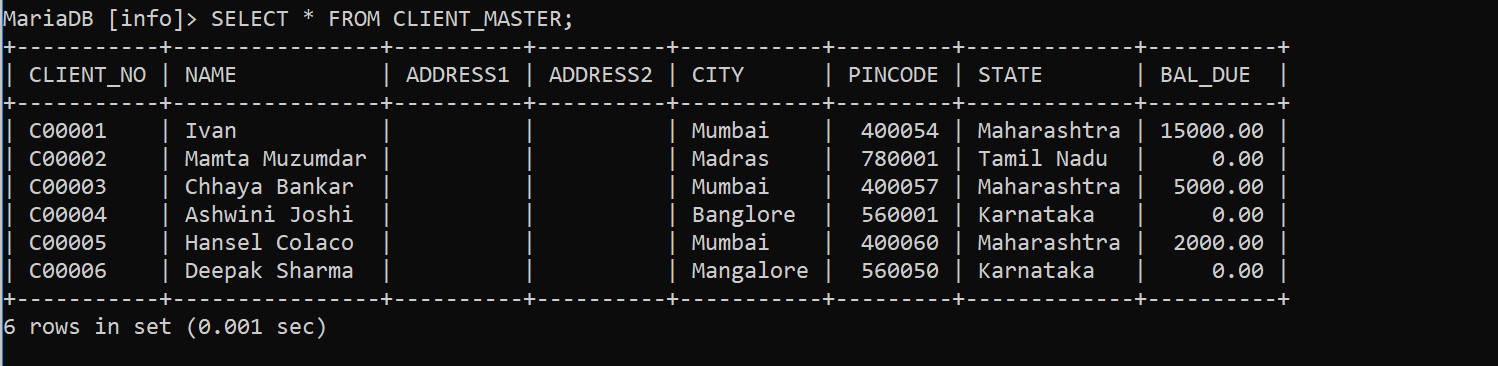
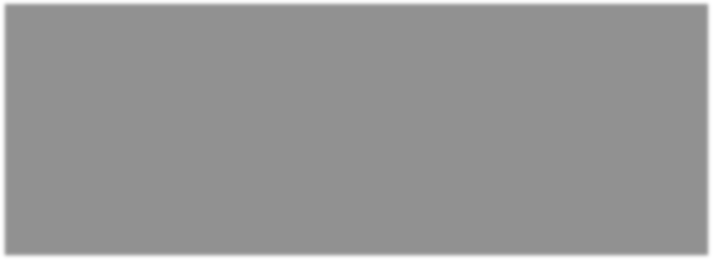
# Describing Schema of the Table:

**Commands used**:

* DESCRIBE SALESMAN\_MASTER or DESC SALESMAN\_MASTER;



# Inserting Data in the Tables:



**Table Name:** CLIENT\_MASTER

**Commands used**:

 INSERT INTO CLIENT\_MASTER VALUES ('C00001', 'Ivan','','', 'Mumbai', '400054', 'Maharashtra', '15000');

 INSERT INTO CLIENT\_MASTER VALUES ('C00002', 'Mamta Muzumdar','','','Madras', '780001', 'Tamil Nadu', '0');

 INSERT INTO CLIENT\_MASTER VALUES ('C00003', 'Chhaya Bankar','','', 'Mumbai', '400057',

'Maharashtra', '5000');

 INSERT INTO CLIENT\_MASTER VALUES ('C00004', 'Ashwini Joshi','','', 'Banglore', '560001',

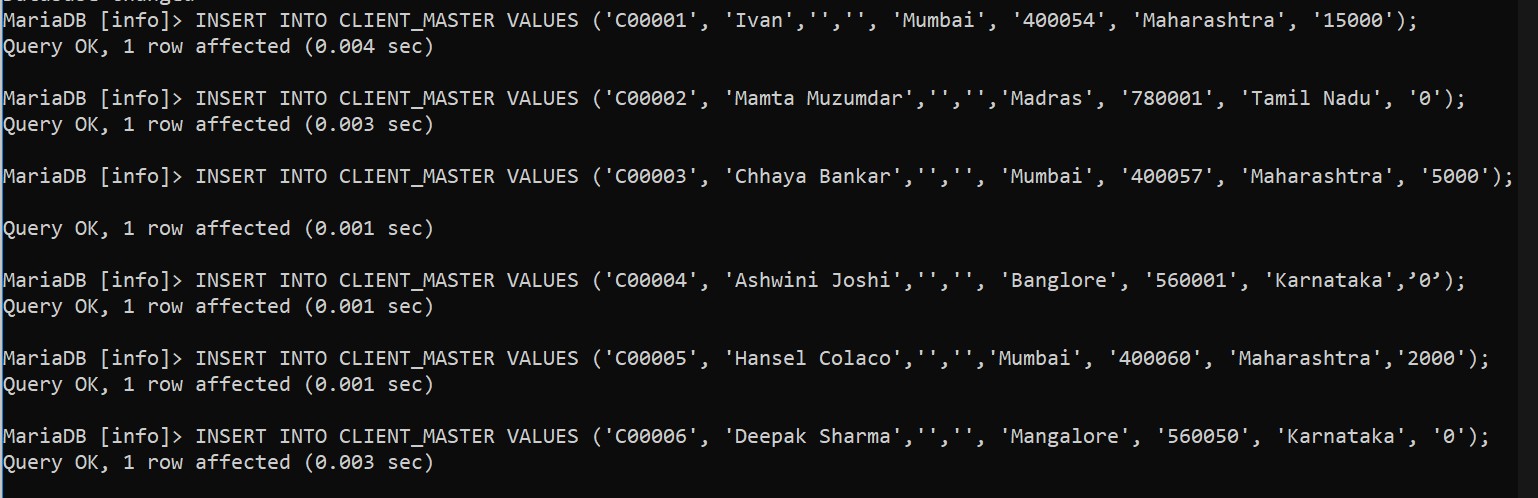
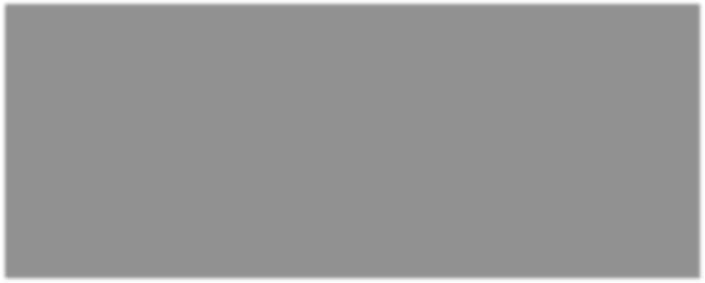
'Karnataka',’0’);

 INSERT INTO CLIENT\_MASTER VALUES ('C00005', 'Hansel Colaco','','','Mumbai', '400060',

'Maharashtra','2000');

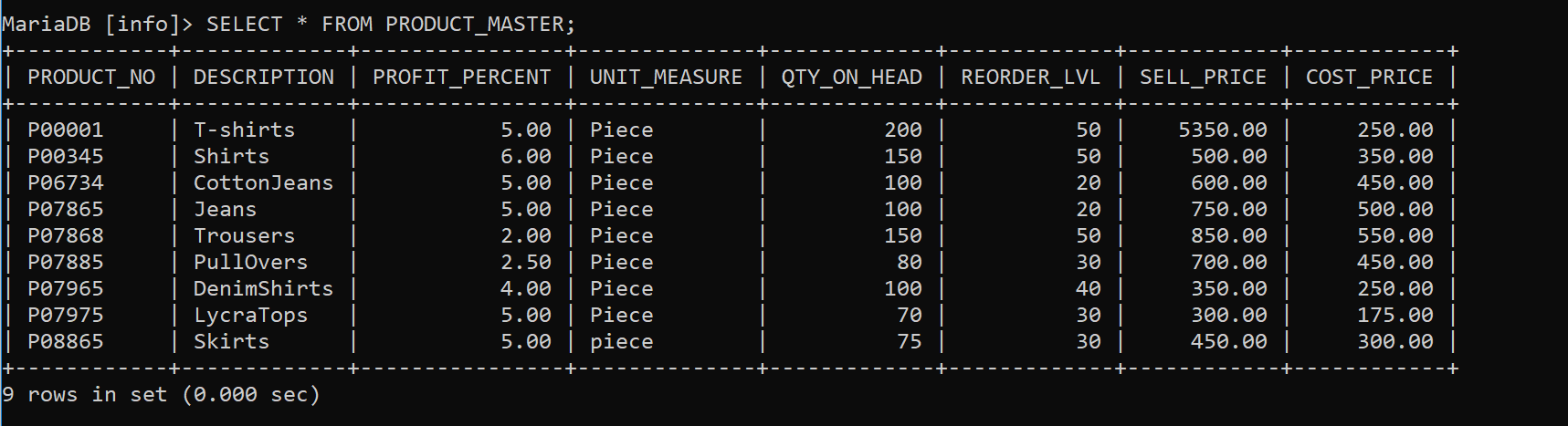
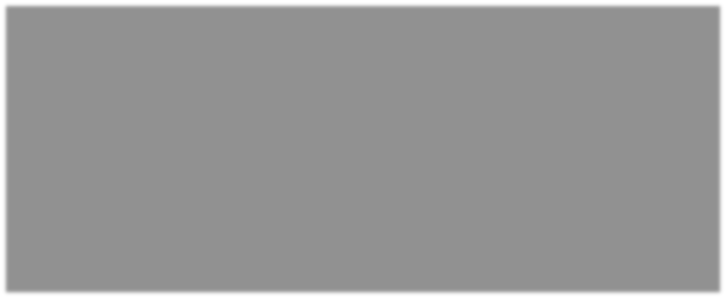
 INSERT INTO CLIENT\_MASTER VALUES ('C00006', 'Deepak Sharma','','', 'Mangalore', '560050',

'Karnataka', '0');



**Display Table:** SELECT \* FROM CLIENT\_MASTER;

**Table Name:** PRODUCT\_MASTER



 INSERT INTO product\_master VALUES('P00001','T-shirts',5,'Piece',200,50,5350,250);

 INSERT INTO product\_master VALUES('P00345','Shirts',6,'Piece',150,50,500,350);

 INSERT INTO product\_master VALUES('P06734','CottonJeans',5,'Piece',100,20,600,450);

 INSERT INTO product\_master VALUES('P07865','Jeans',5,'Piece',100,20,750,500);

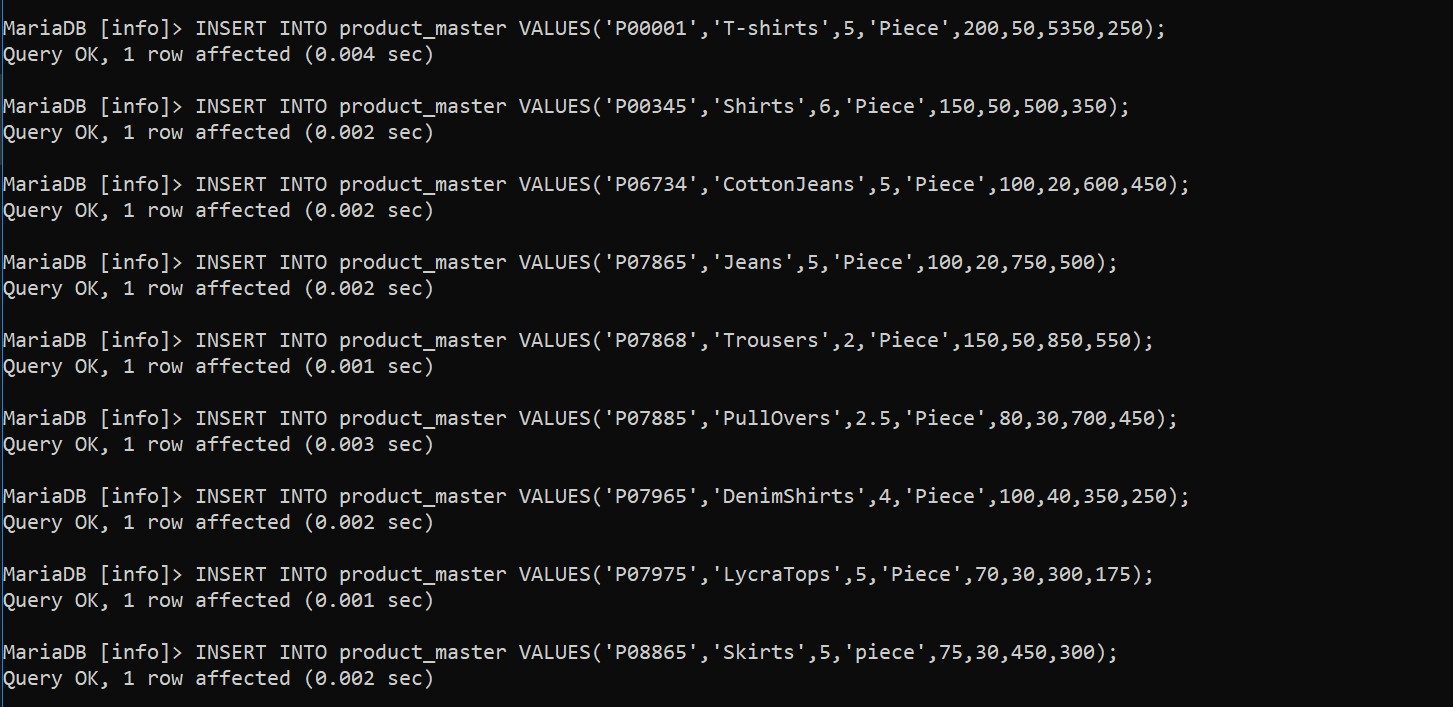
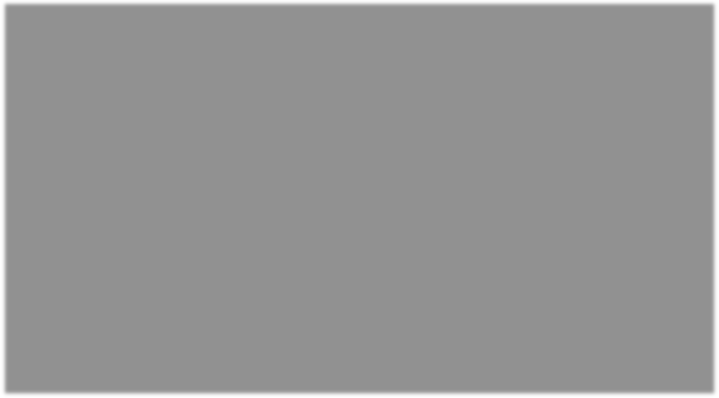
 INSERT INTO product\_master VALUES('P07868','Trousers',2,'Piece',150,50,850,550);

 INSERT INTO product\_master VALUES('P07885','PullOvers',2.5,'Piece',80,30,700,450);

 INSERT INTO product\_master VALUES('P07965','DenimShirts',4,'Piece',100,40,350,250);

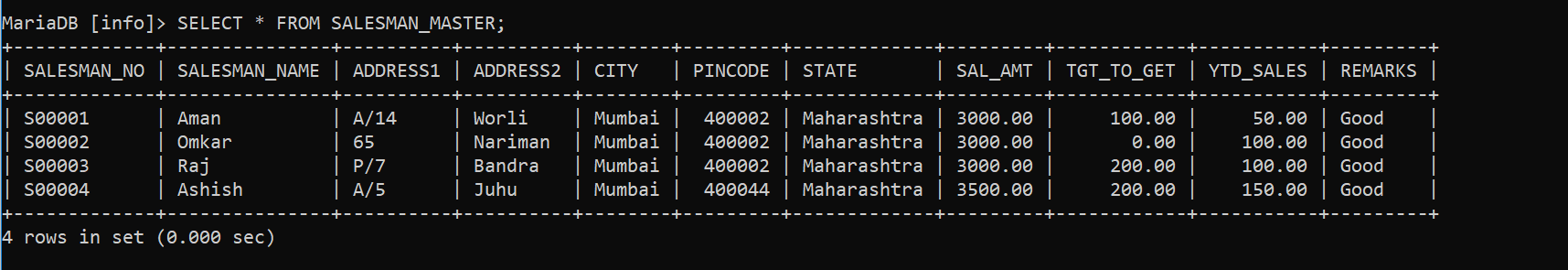
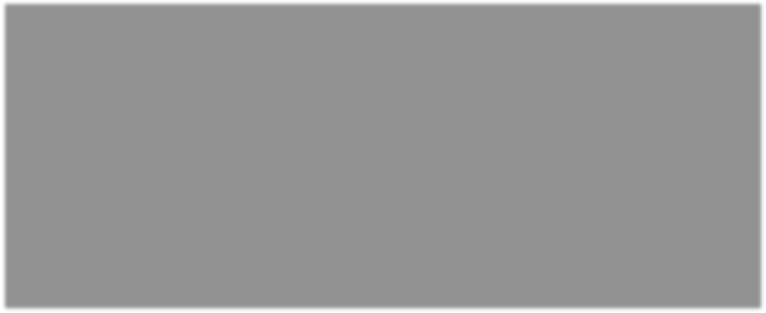
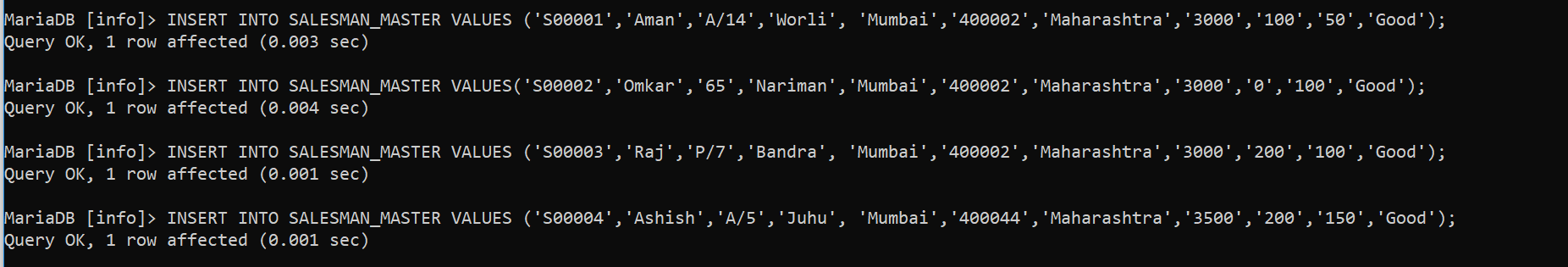
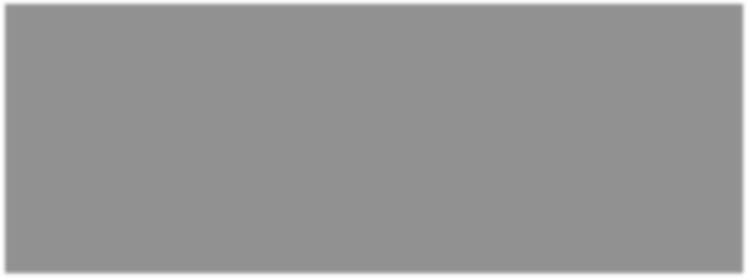
 INSERT INTO product\_master VALUES('P07975','LycraTops',5,'Piece',70,30,300,175);

 INSERT INTO product\_master VALUES('P08865','Skirts',5,'piece',75,30,450,300);



**Display Table:** SELECT \* FROM PRDOUCT\_MASTER;

**Table Name:** SALESMAN\_MASTER



 INSERT INTO SALESMAN\_MASTER VALUES ('S00001','Aman','A/14','Worli',

'Mumbai','400002','Maharashtra','3000','100','50','Good');

 INSERT INTO SALESMAN\_MASTER VALUES('S00002','Omkar','65','Nariman','Mumbai','400002','Maharashtra','3000','0','100','Good');

 INSERT INTO SALESMAN\_MASTER VALUES ('S00003','Raj','P/7’,'Bandra',

'Mumbai','400002','Maharashtra','3000','200','100','Good');

 INSERT INTO SALESMAN\_MASTER VALUES ('S00004','Ashish','A/5','Juhu’,

‘Mumbai','400044','Maharashtra','3500','200','150','Good');

**Display Table:** SELECT \* FROM SALESMAN\_MASTER;



**AIM:** **Write queries for retrieving records from table using SELECT command and WHERE clause.**

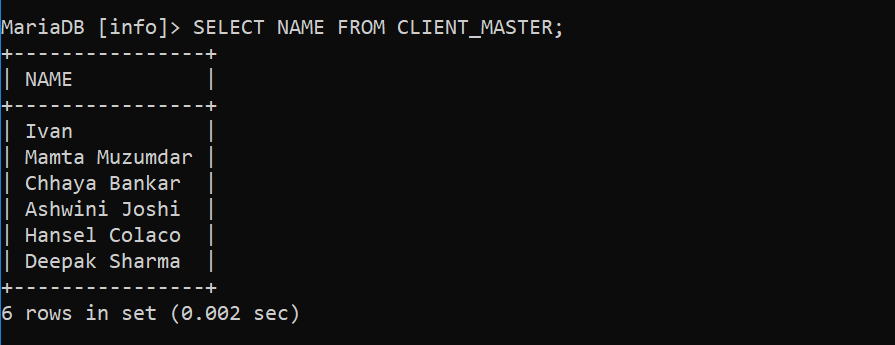
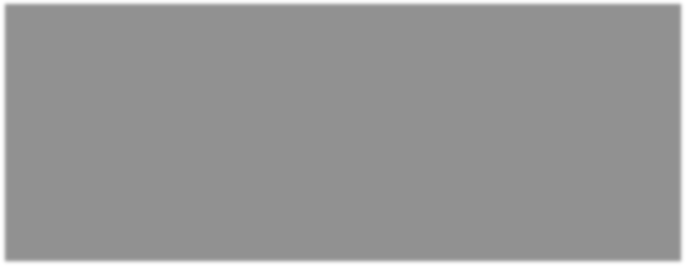
# Tools Used:

1. Maria DB

**QUERIES ARE PERFORMED AS FOLLOWS: -**

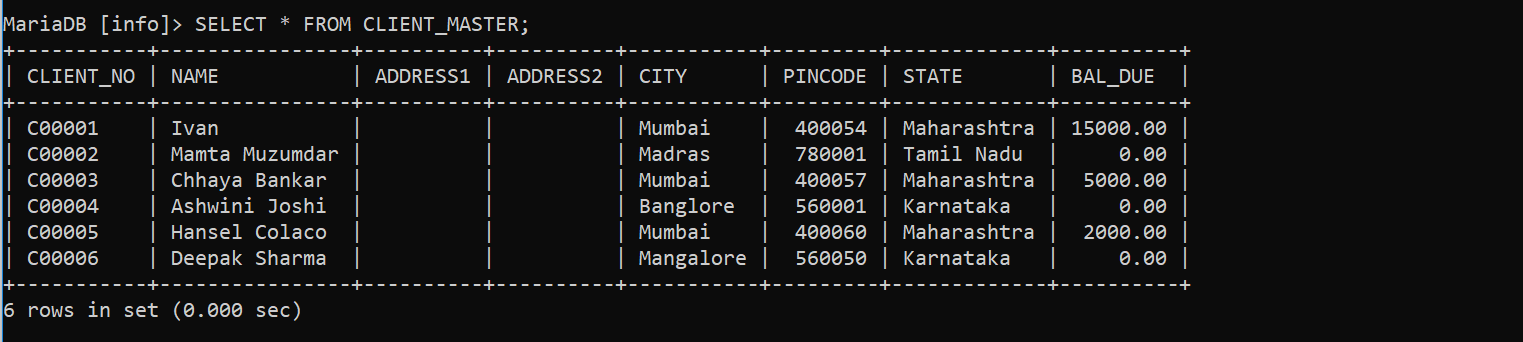
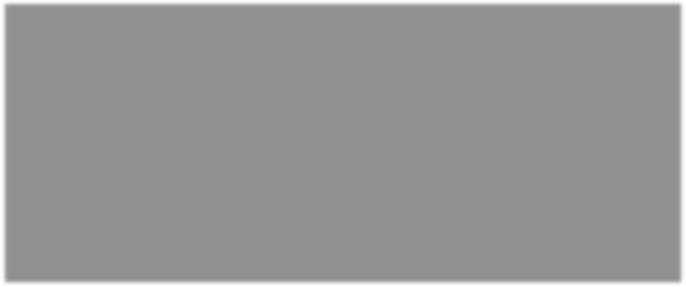
# Find out the names of all the Clients

 SELECT NAME FROM CLIENT\_MASTER;



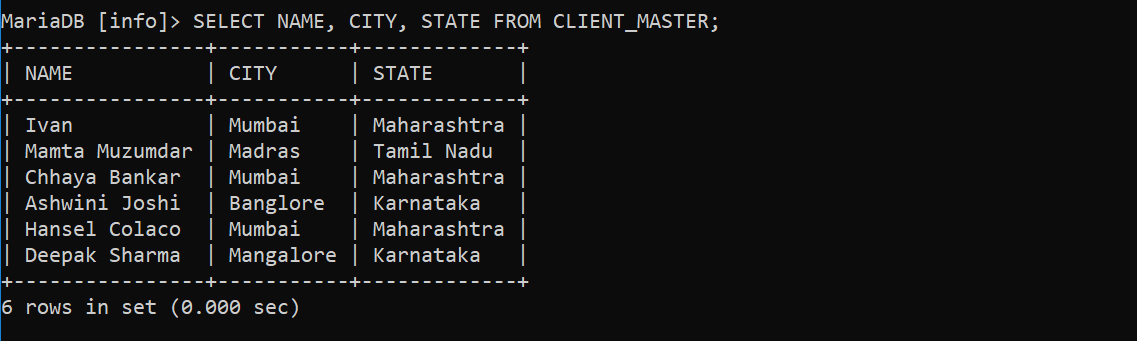
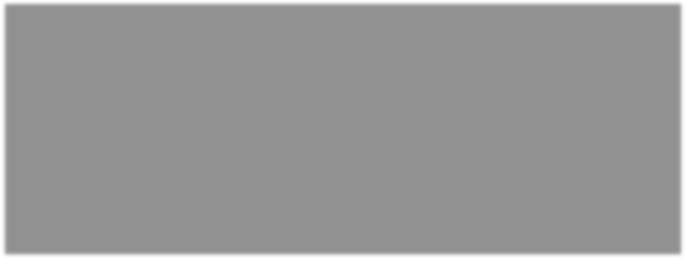
# Retrieve the entire contents of the Client\_Master table

 SELECT \* FROM CLIENT\_MASTER;



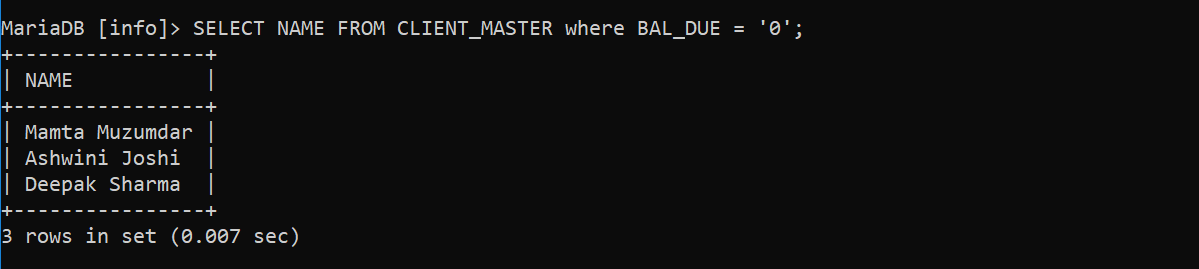
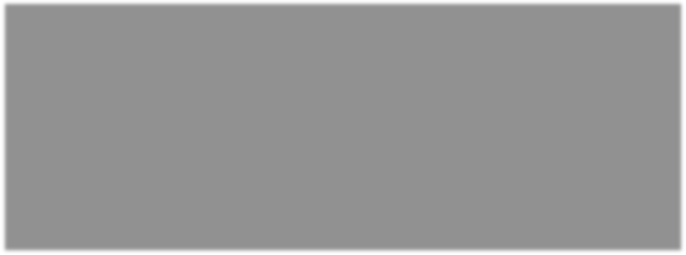
1. **Retrieve the list of names, cities and the states of all the clients**

 SELECT NAME, CITY, STATE FROM CLIENT\_MASTER;



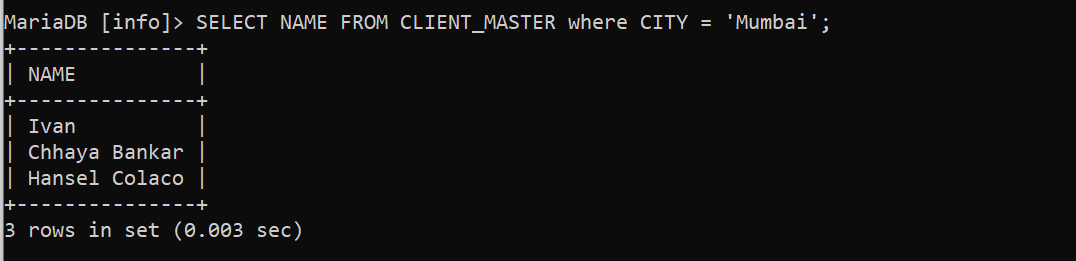
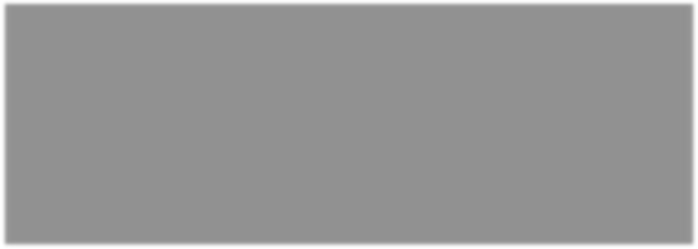
1. **Find names of clients from Client\_Master whose Bal\_Due is Rs.0**

 SELECT NAME FROM CLIENT\_MASTER where BAL\_DUE = ‘0’;



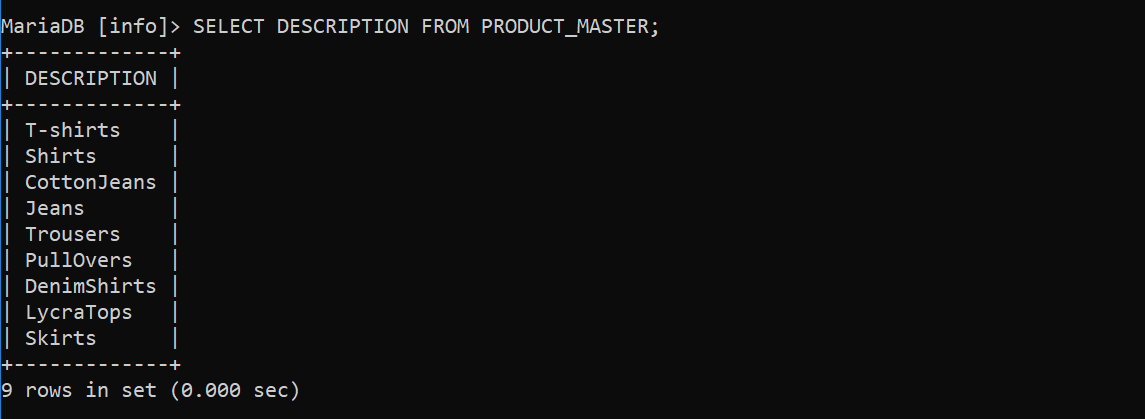
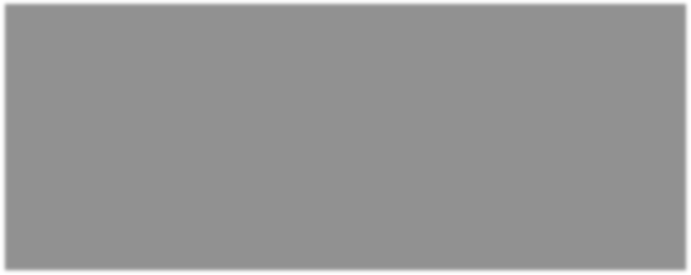
# List all the clients who are located in Mumbai.

 SELECT NAME FROM CLIENT\_MASTER where CITY = ‘Mumbai’;



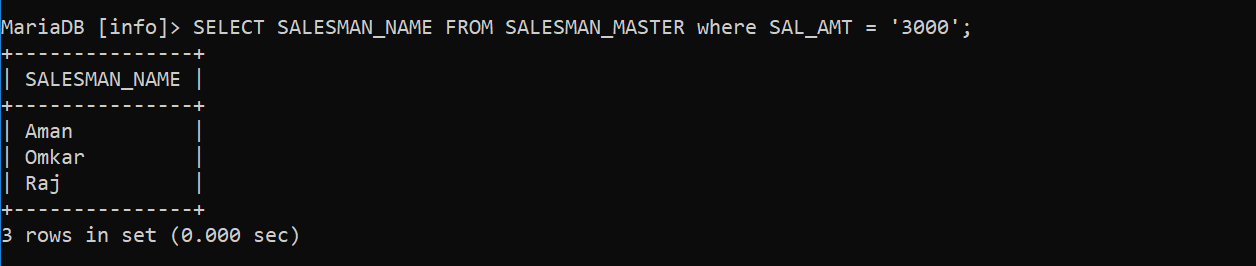
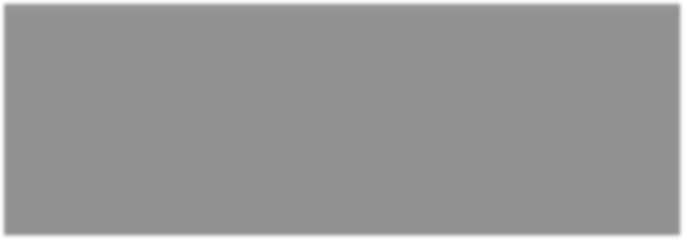
## List the various products available from the Product\_Master table

 SELECT DESCRIPTION FROM PRODUCT\_MASTER;



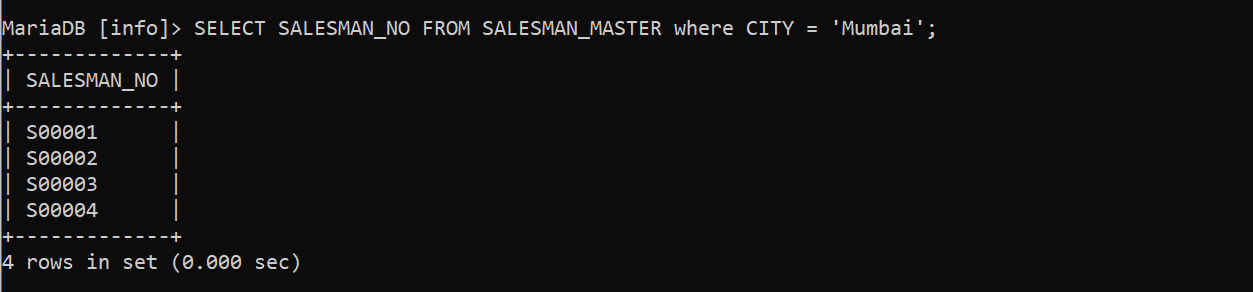
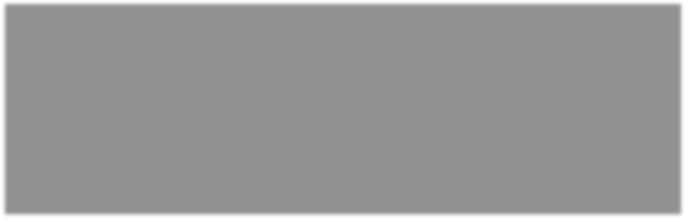
1. **Find the names of salesman who have Sal\_Amt = Rs.3000**

 SELECT SALESMAN\_NAME FROM SALESMAN\_MASTER where SAL\_AMT = ‘3000’;



# List all Salesman\_No who live in city Mumbai

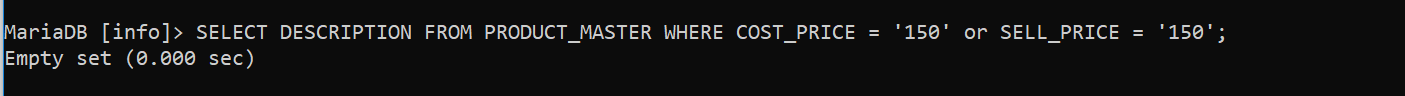
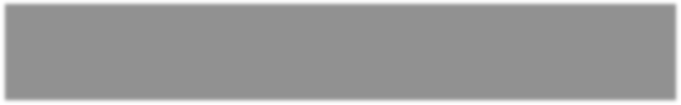
 SELECT SALESMAN\_NO FROM SALESMAN\_MASTER where CITY = ‘Mumbai’;



# Find Product\_No whose Price = Rs.150

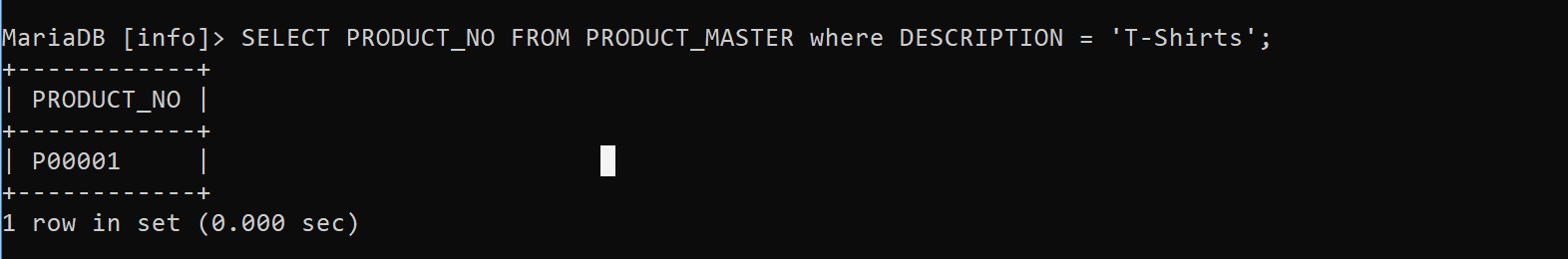
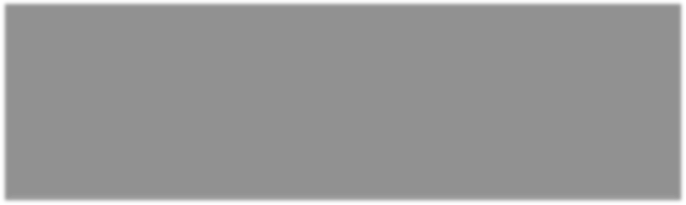
 SELECT DESCRIPTION FROM PRODUCT\_MASTER WHERE COST\_PRICE = ‘150’

or SELL\_PRICE = ‘150’;



# Find Product\_No of T-Shirts in Product\_Master table

 SELECT PRODUCT\_NO FROM PRODUCT\_MASTER where DESCRIPTION = ‘T-Shirts’;



**AIM:** **Write SQL commands for implementing ALTER, UPDATE and DELETE.**

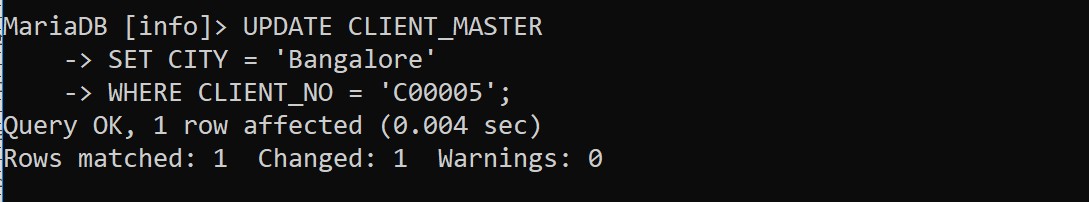
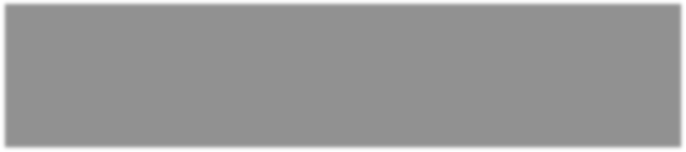
# Tools Used:

* 1. MariaDB

**QUERIES ARE PERFORMED AS FOLLOWS: -**

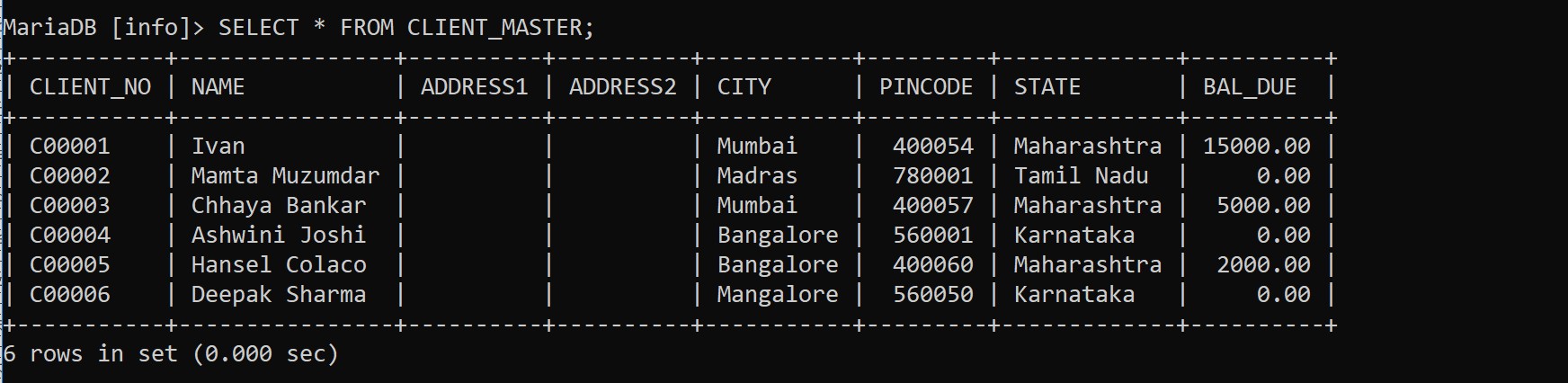
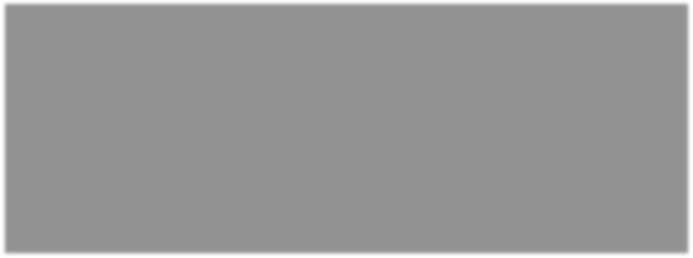
1. **Change the City of Client\_No 'C00005' to 'Bangalore'**

UPDATE CLIENT\_MASTER



 SET CITY = ‘Bangalore’

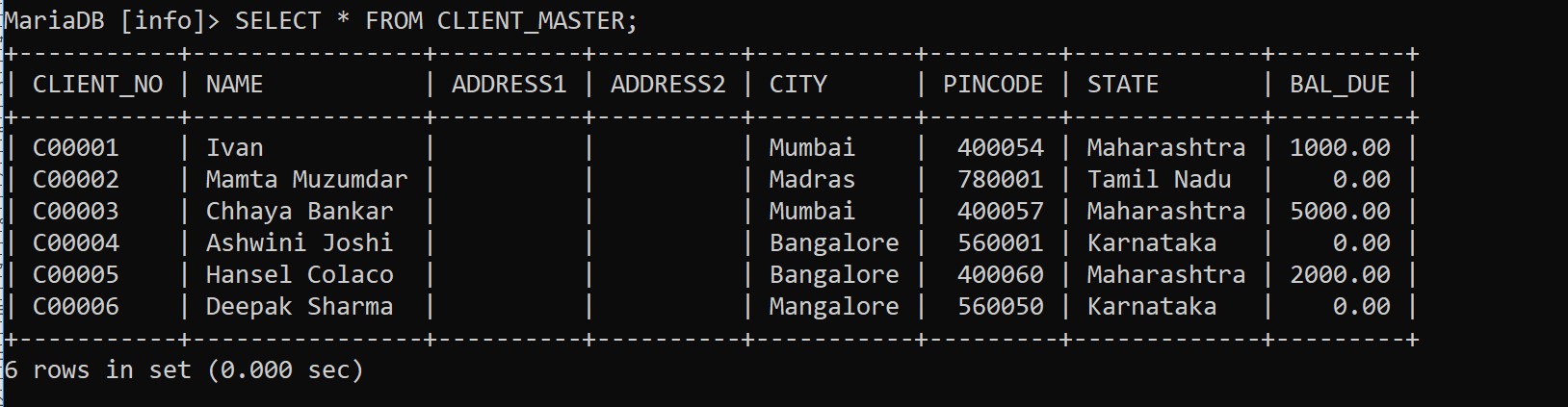
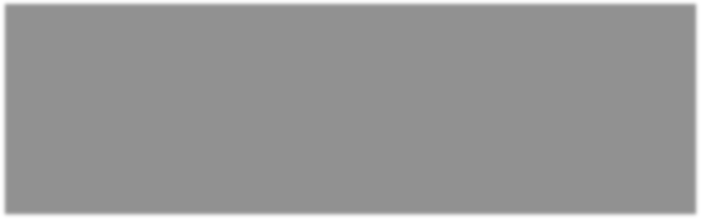
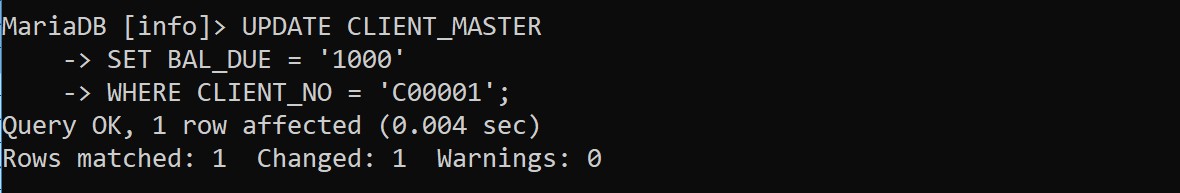
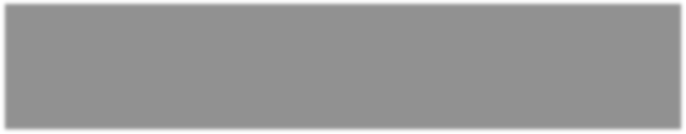
 WHERE CLIENT\_NO = ‘C00005’;



**Altered Data is: -**

# Change the Bal\_Due of Client\_No 'C00001' to Rs.1000

UPDATE CLIENT\_MASTER



 SET BAL\_DUE = ‘1000’

 WHERE CLIENT\_NO = ‘C00001’;

**Altered Data is: -**

# Change the Cost\_Price of 'Trousers' to Rs.950

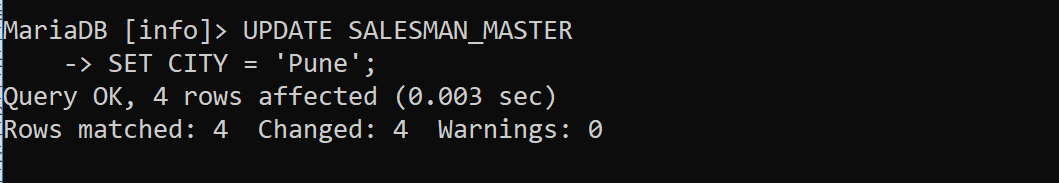
UPDATE PRODUCT\_MASTER

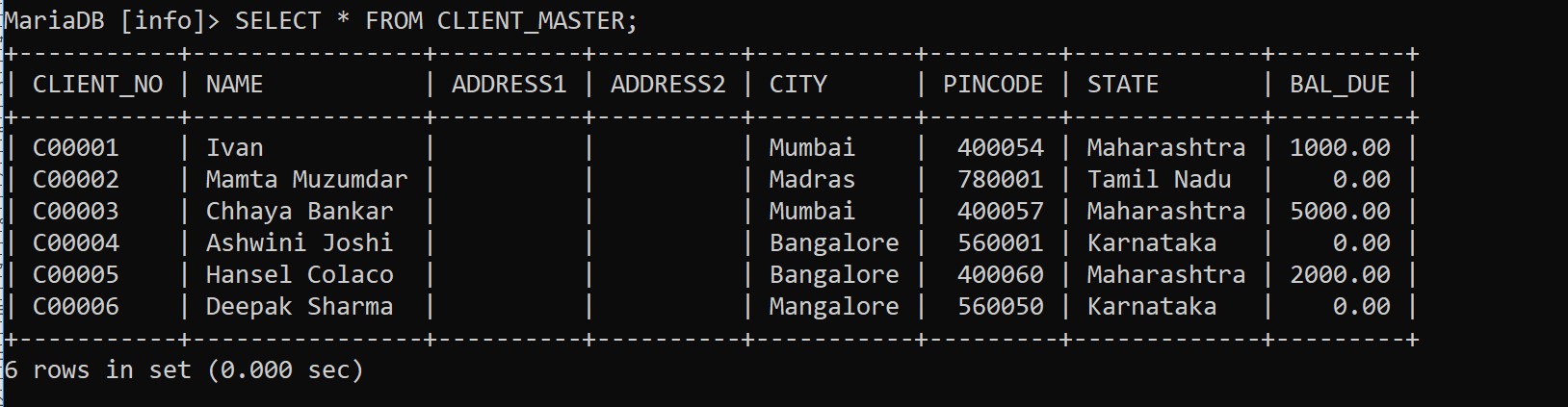
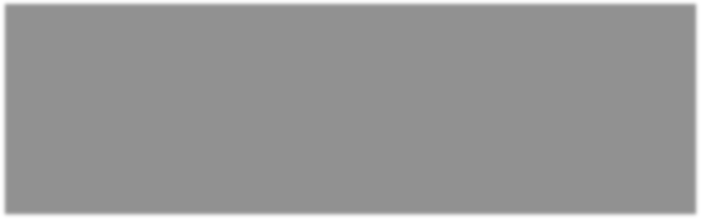
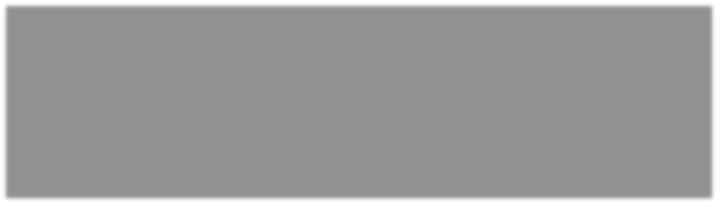
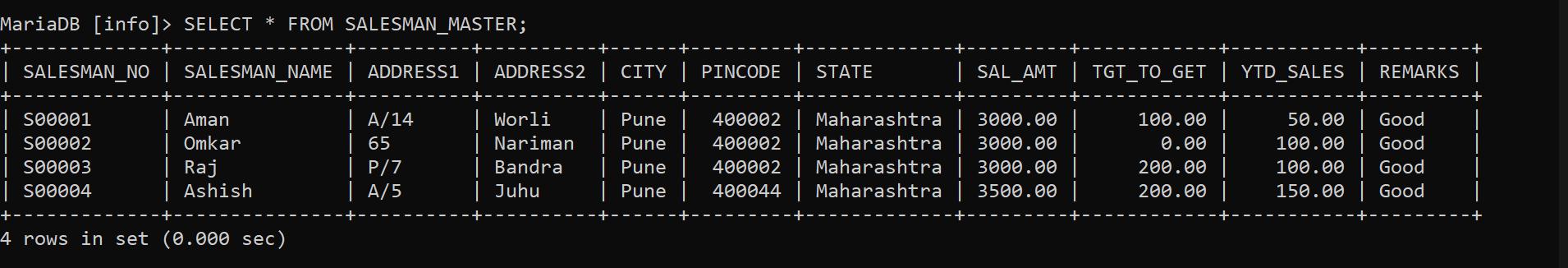
 SET COST\_PRICE = ‘950’

 WHERE DESCRIPTION = ‘Trousers’;

# Change the City of the Salesman to 'Pune'

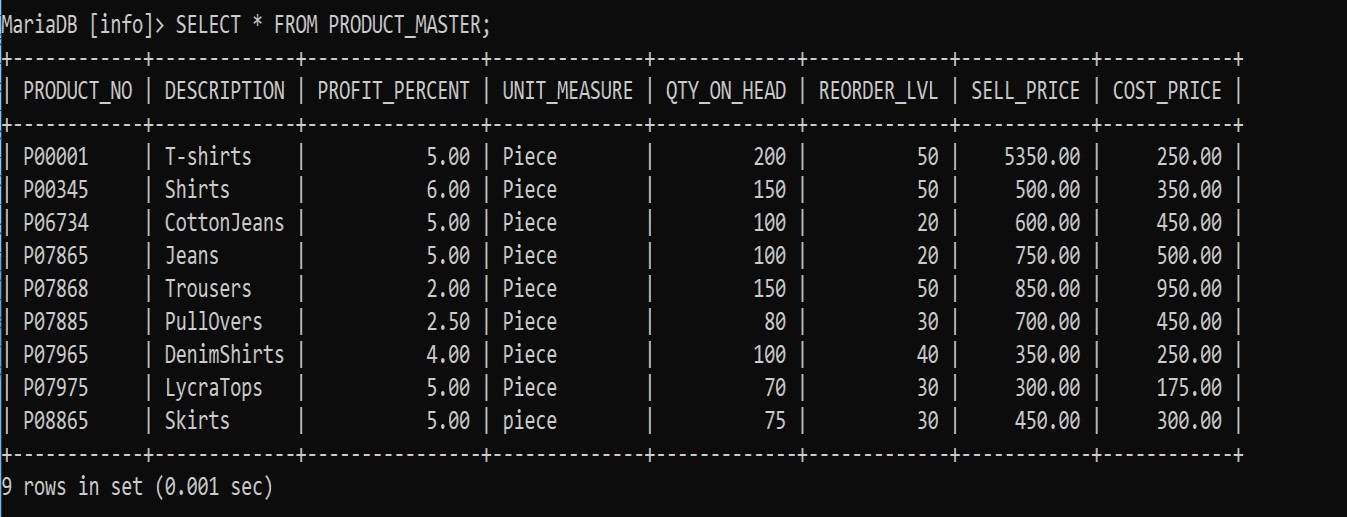
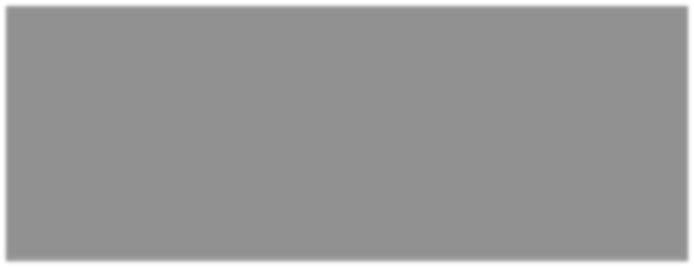
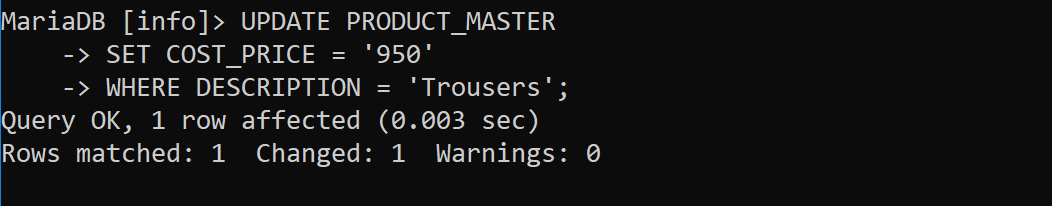
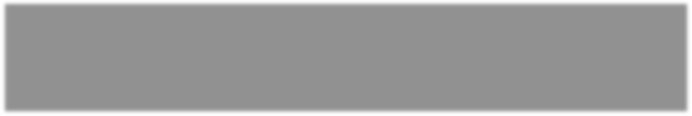
UPDATE SALESMAN\_MASTER

* + SET CITY = ‘Pune’;

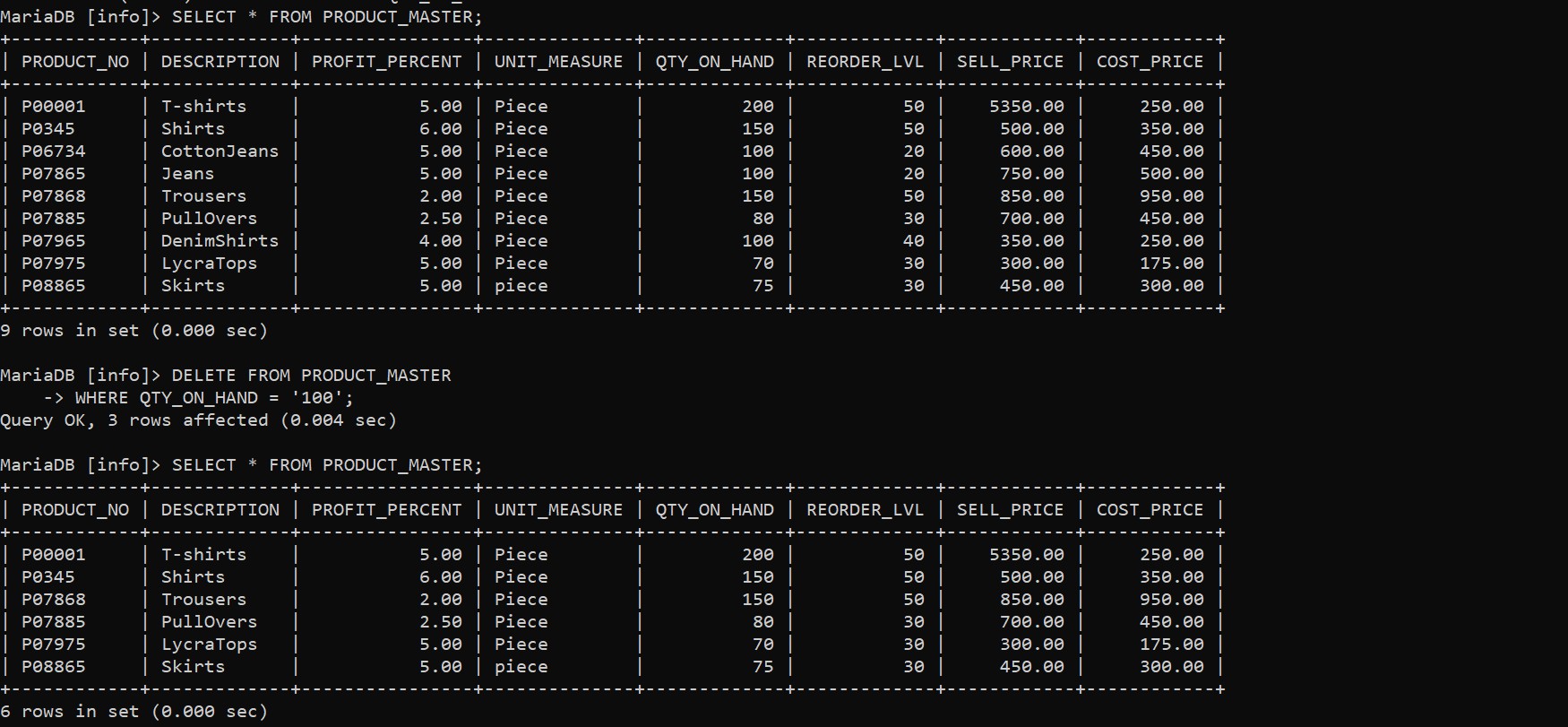
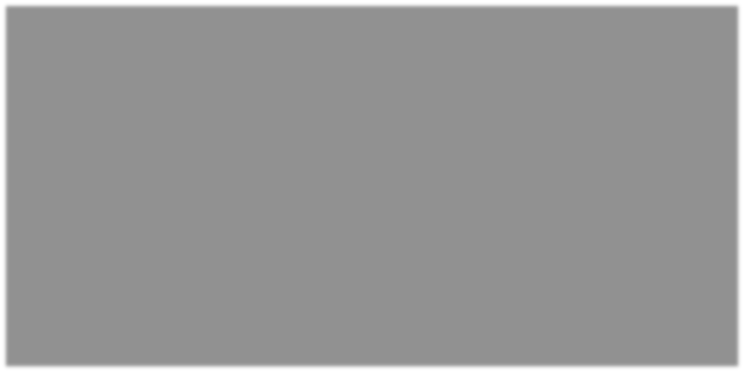
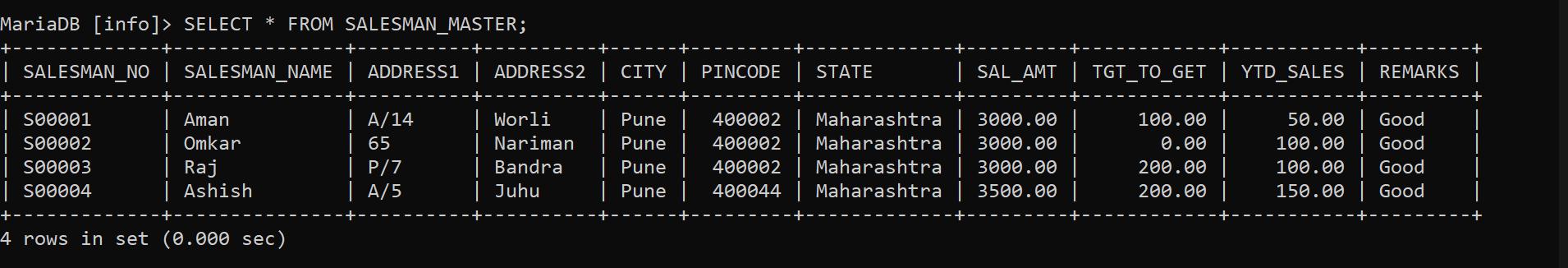
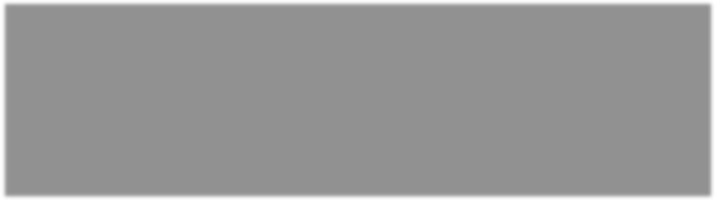


**Altered Data is: -**

# Delete all Salesman from the Salesman\_Master whose salaries are equal to Rs. 3500



DELETE FROM SALESMAN\_MASTER



* + WHERE SAL\_AMT = ‘3500’;

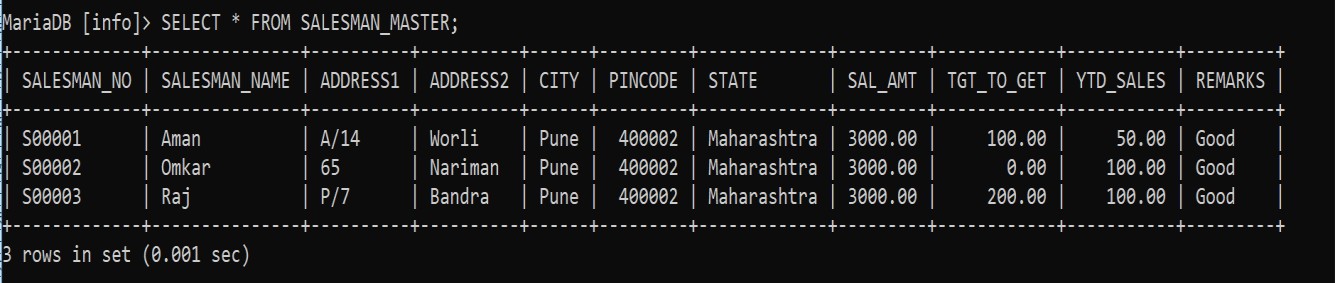
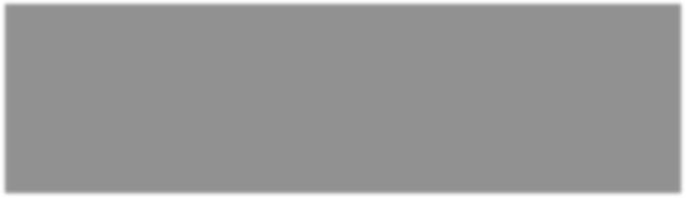
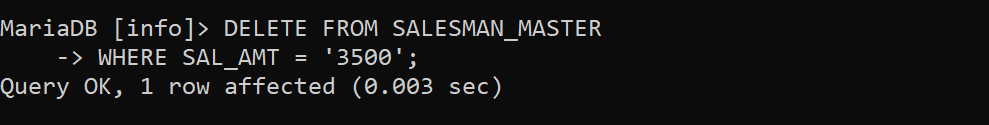
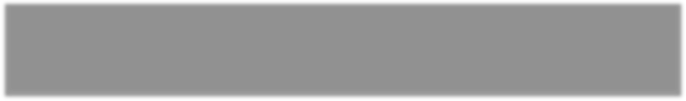
**Altered Data is: -**

# Delete all Products from Product\_Master where the

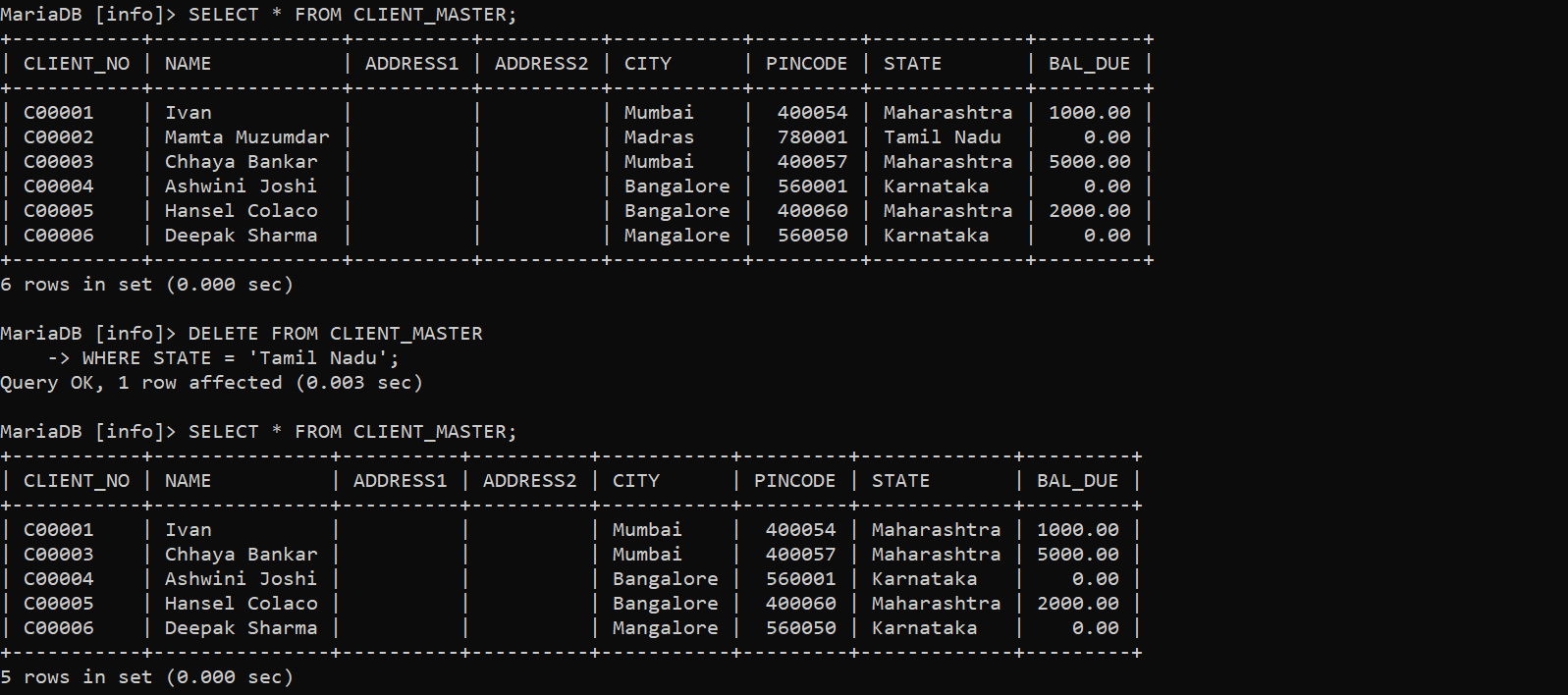
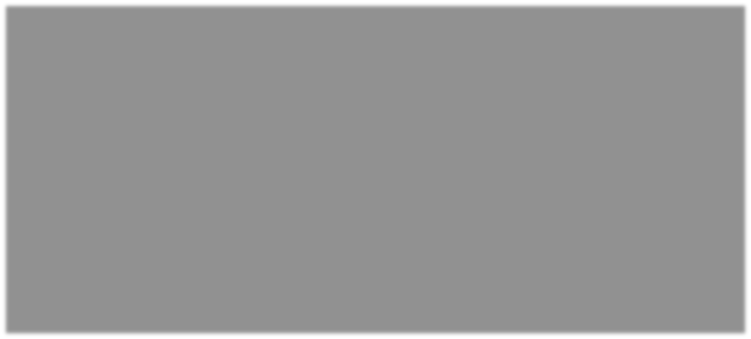
**QtyOnHand = 100**

DELETE FROM PRODUCT\_MASTER

* + WHERE QTY\_ON\_HAND = ‘100’;

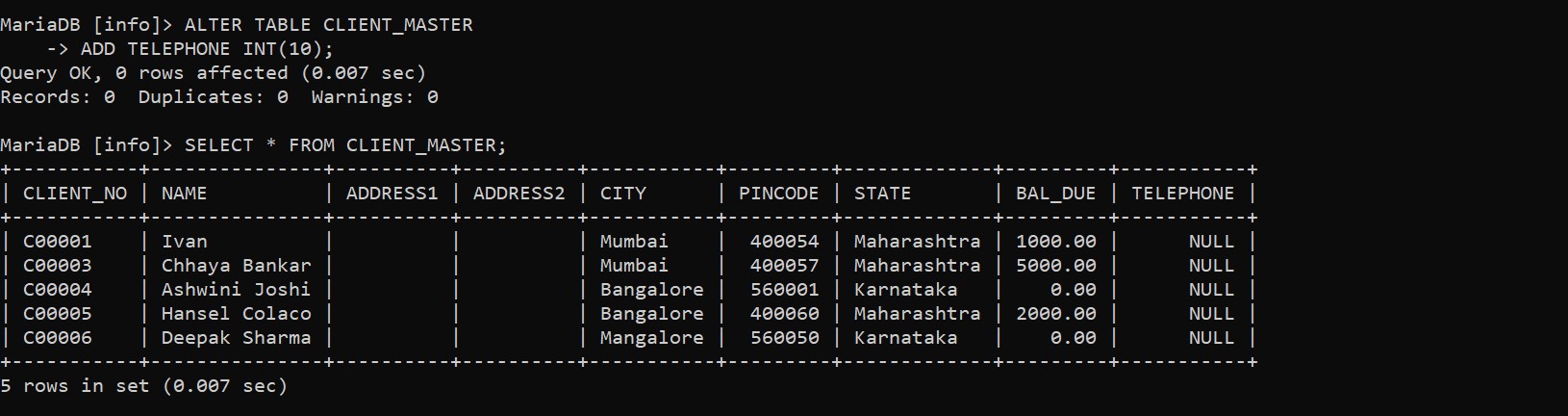
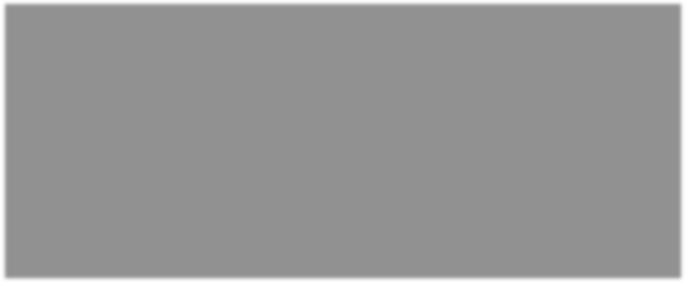


# Delete from Client\_Master where the column state holds the value 'Tamil Nadu'



DELETE FROM CLIENT\_MASTER

* + WHERE STATE = ‘Tamil Nadu’;



# Add a column called 'Telephone' of data type 'Number' and size = '10' to the Client\_Master Table

ALTER TABLE CLIENT\_MASTER

* + ADD TELEPHONE INT(10);

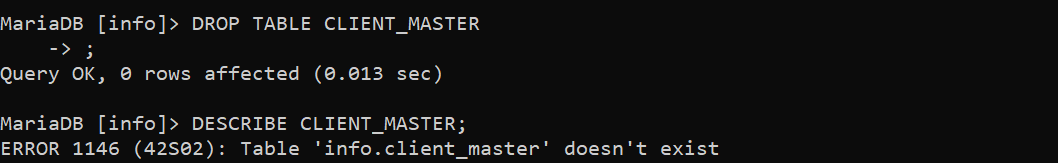
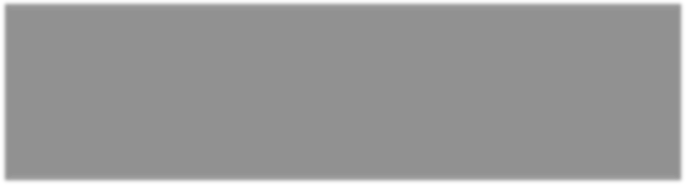
1. **Change the size of Sell\_Price column in Product\_Master to '10.2'**

ALTER TABLE PRODUCT\_MASTER

* + MODIFY SELL\_PRICE FLOAT(10,2);

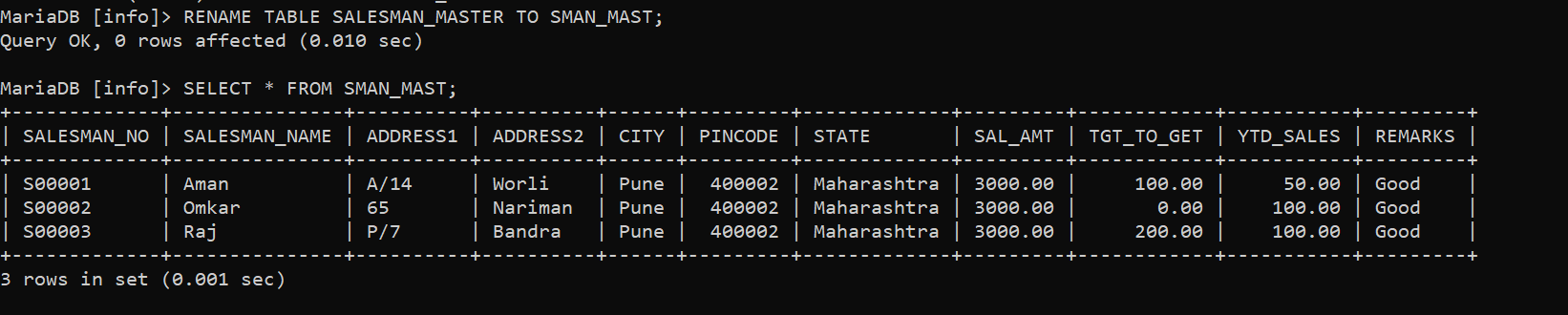
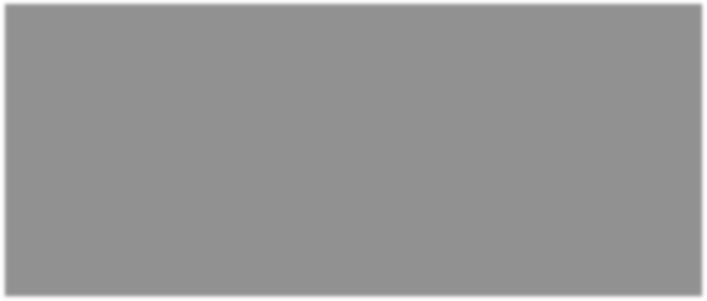
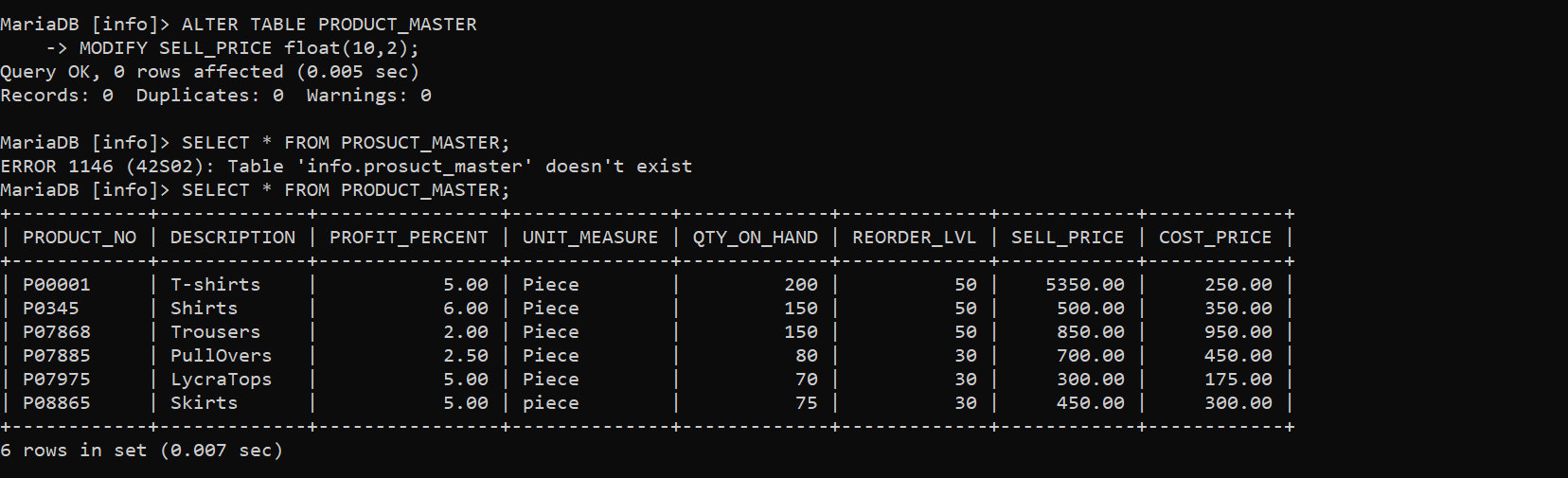
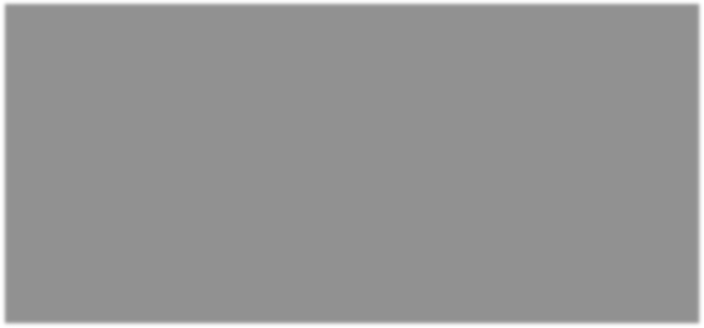
# Destroy the table Client\_Master along with its data

* + DROP TABLE CLIENT\_MASTER;



# Change the name of the Salesman\_Master table to SMAN\_MAST

 RENAME TABLE SALESMAN\_MASTER TO SMAN\_MAST;



**AIM:** **Write the queries to implement the concept of Integrity Constraints like Primary Key, Foreign Key, NOT NULL to the tables.**

**Tools Used:**

1. MariaDB

# Creation of Table:

1. **Table Name:** CLIENT\_MASTER2
2. **Description:** Used to store Client Information

# Commands used for Creating Table:

 CREATE TABLE CLIENT\_MASTER2 (

 CLIENT\_NO CHAR(6) PRIMARY KEY,

 NAME VARCHAR(20) NOT NULL,

 ADDRESS1 VARCHAR(30),

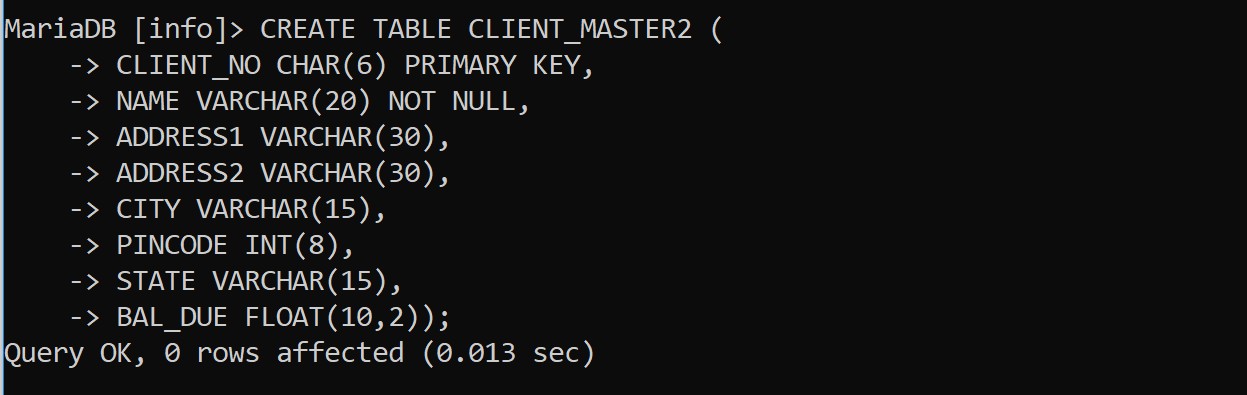
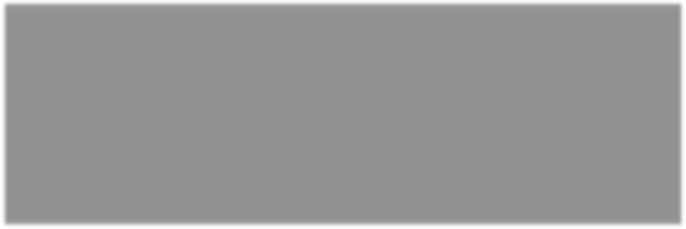
 ADDRESS2 VARCHAR(30),

 CITY VARCHAR(15),

 PINCODE INT(8),

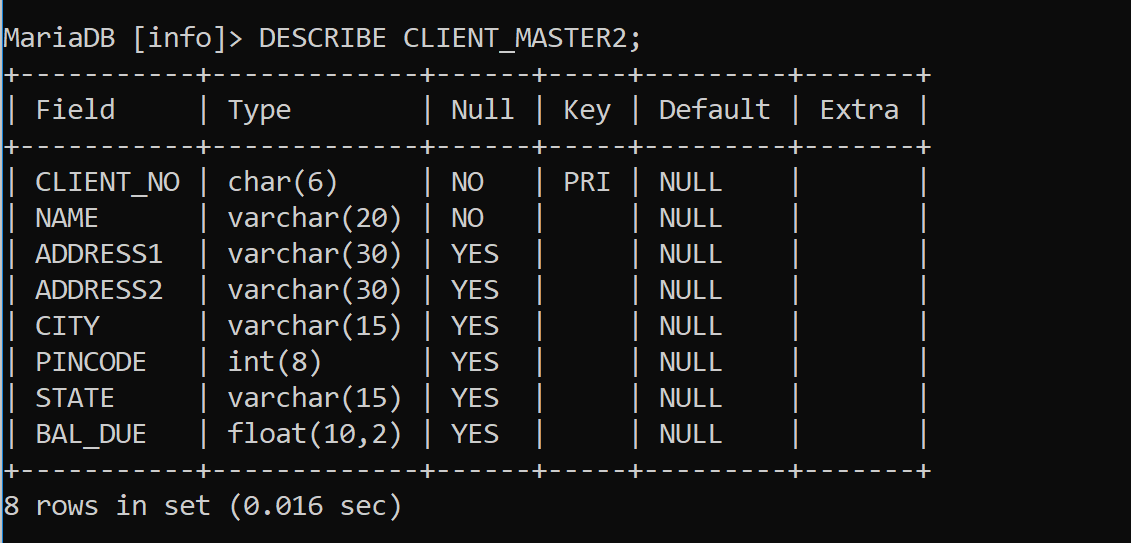
 STATE VARCHAR(15),

 BAL\_DUE FLOAT(10,2));



# Describing Schema of the Table: Commands used:

 DESCRIBE CLIENT\_MASTER2 or DESC CLIENT\_MASTER2;



# Creation of Table:

1. **Table Name:** PRODUCT\_MASTER2
2. **Description:** Used to store Prdouct Information

# Commands for Creating Table:

 CREATE TABLE PRODUCT\_MASTER2(

 PRODUCT\_NO VARCHAR(6) PRIMARY KEY,

 DESCRIPTION VARCHAR(15) NOT NULL,

 PROFIT\_PERCENT FLOAT(4,2) NOT NULL,

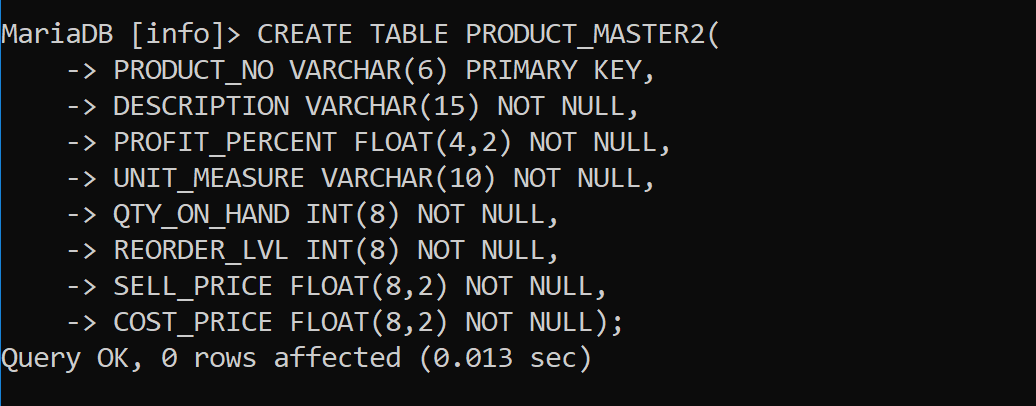
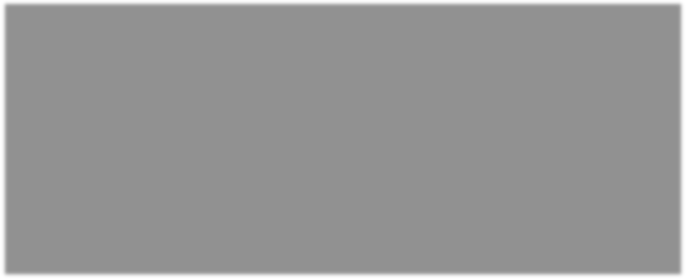
 UNIT\_MEASURE VARCHAR(10) NOT NULL,

 QTY\_ON\_HEAD INT(8) NOT NULL,

 REORDER\_LVL INT(8) NOT NULL,

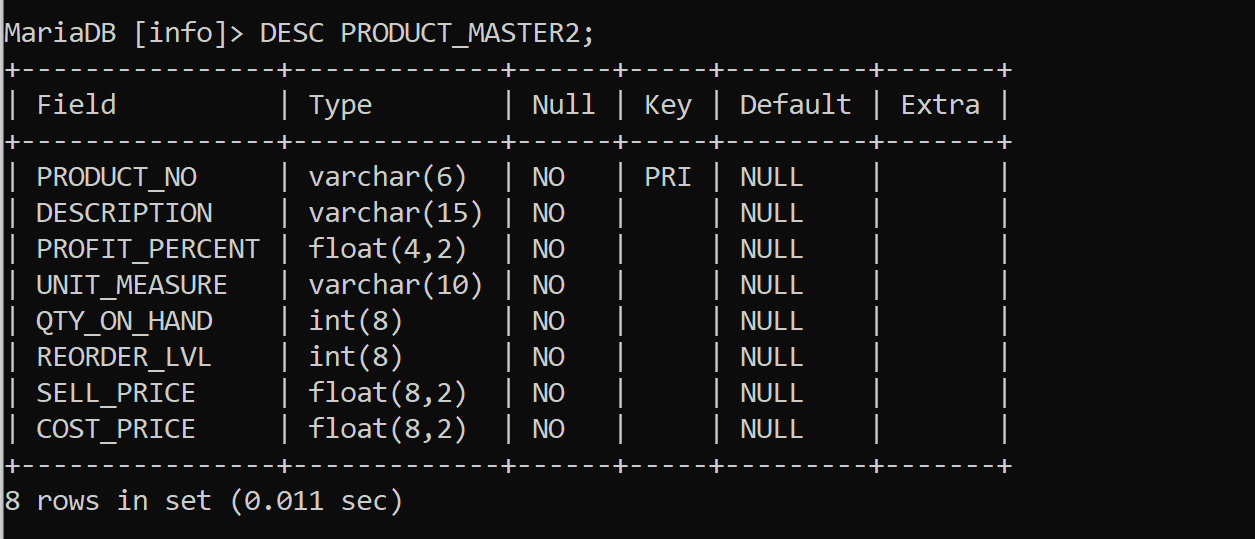
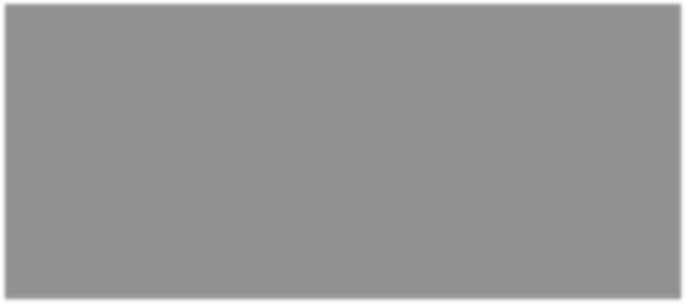
 SELL\_PRICE FLOAT(8,2) NOT NULL,

 COST\_PRICE FLOAT(8,2) NOT NULL);



# Describing Schema of the Table: Commands used:

 DESCRIBE PRODUCT\_MASTER2 or DESC PRODUCT\_MASTER2;



# Creation of Table:

* 1. **Table Name:** SALESMAN\_MASTER2
  2. **Description:** Used to store Salesman Information

# Commands for Creating Table:

 CREATE TABLE SALESMAN\_MASTER (

 SALESMAN\_NO VARCHAR(6) PRIMARY KEY,

 SALESMAN\_NAME VARCHAR(20) NOT NULL,

 ADDRESS1 VARCHAR(30) NOT NULL,

 ADDRESS2 VARCHAR(30),

 CITY VARCHAR(20),

 PINCODE INT(8),

 STATE VARCHAR(20),

 SAL\_AMT FLOAT(8,2) NOT NULL,

 TGT\_TO\_GET FLOAT(6,2) NOT NULL,

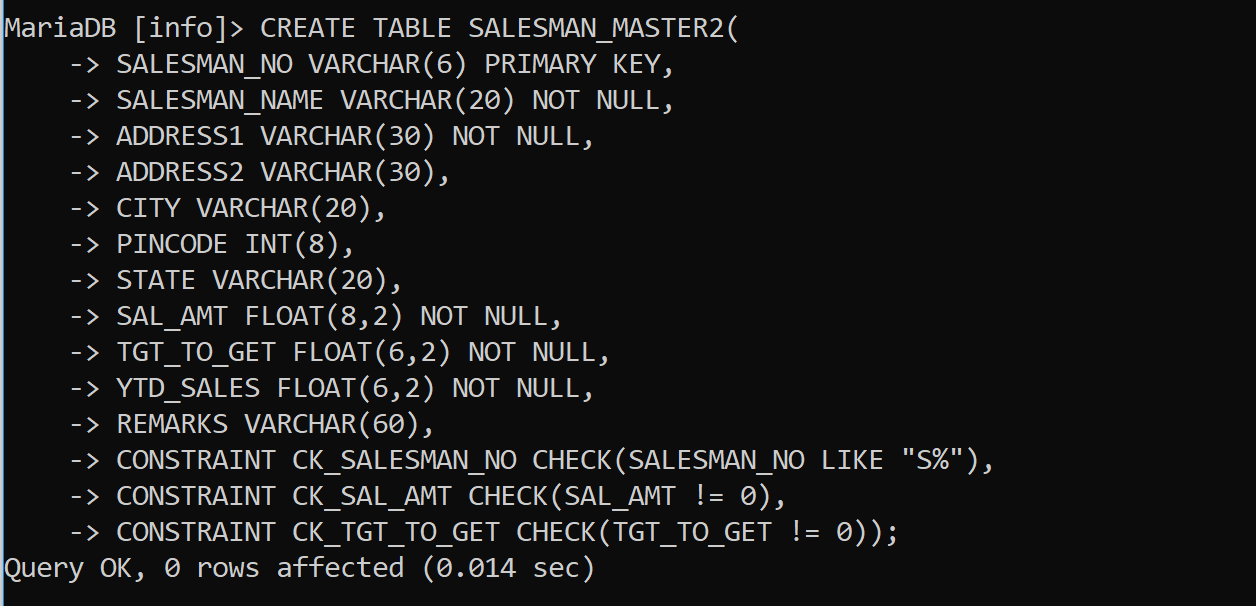
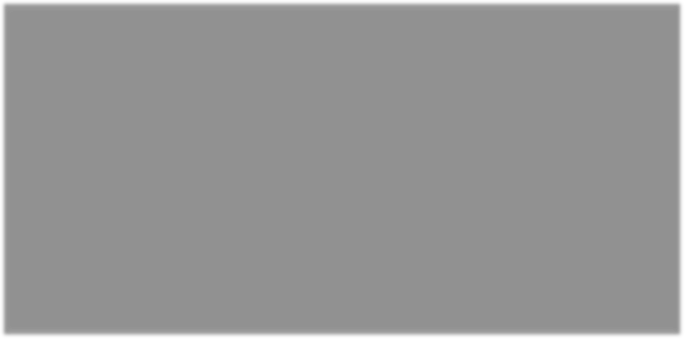
 YTD\_SALES FLOAT(6,2) NOT NULL,

 REMARKS VARCHAR(60),

 CONSTRAINT CK\_SALESMAN\_NO CHECK(SALESMAN\_NO LIKE "S%"),

 CONSTRAINT CK\_SAL\_AMT CHECK(SAL\_AMT != 0),

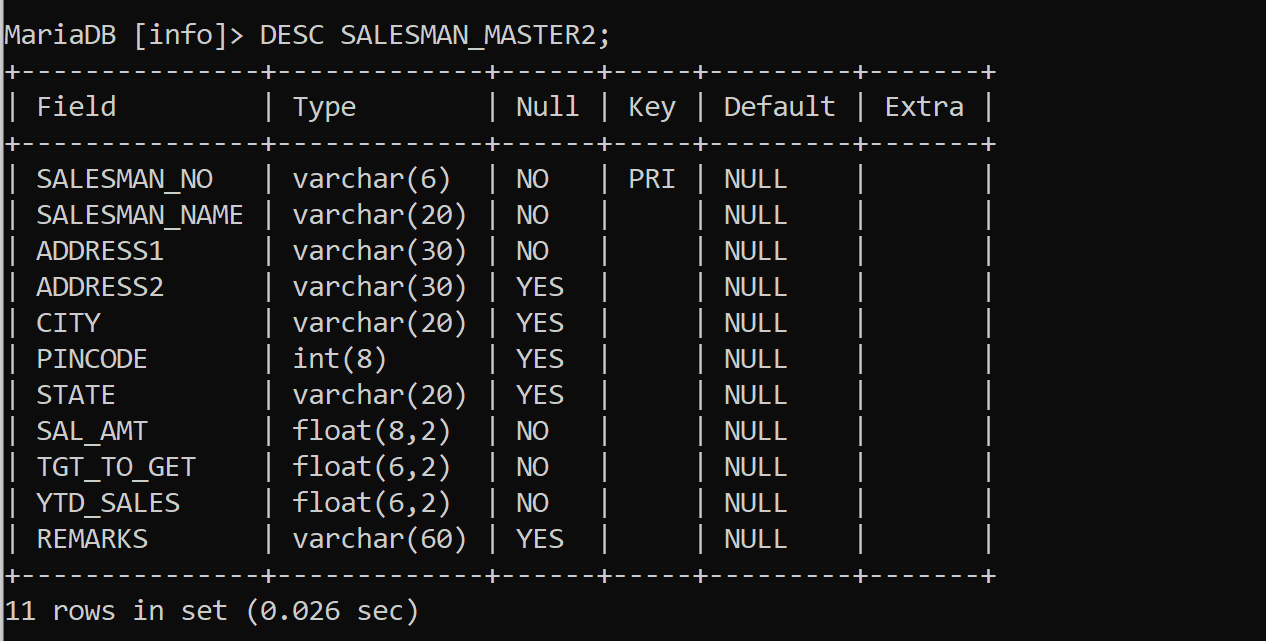
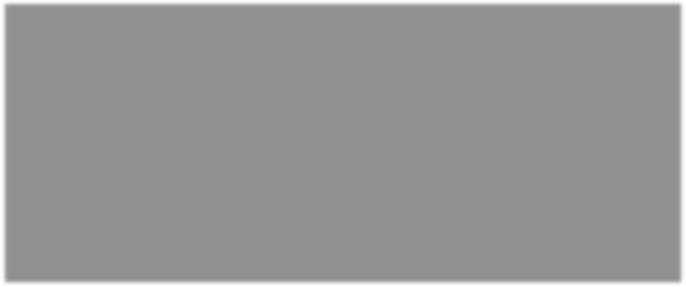
 CONSTRAINT CK\_TGT\_TO\_GET CHECK(TGT\_TO\_GET != 0));



# Schema of the Table:

**Commands used**:

* DESCRIBE SALESMAN\_MASTER2 or DESC SALESMAN\_MASTER2;



# Creation of Table:

* 1. **Table Name:** SALES\_ORDER
  2. **Description:** Used to store Sales Order Information

# Commands for Creating Table:

 CREATE TABLE SALES\_ORDER(

 ORDER\_NO CHAR(6) PRIMARY KEY,

 CLIENT\_NO CHAR(6)REFERENCES CLIENT\_MASTER2,

 ORDERDATE DATE,

 SALESMAN\_NO CHAR(6) REFERENCES SALESMAN\_MASTER2,

 DELIVTYPE CHAR(1) DEFAULT 'F',

 BILLYN CHAR(1),

 DELIVDATE DATE,

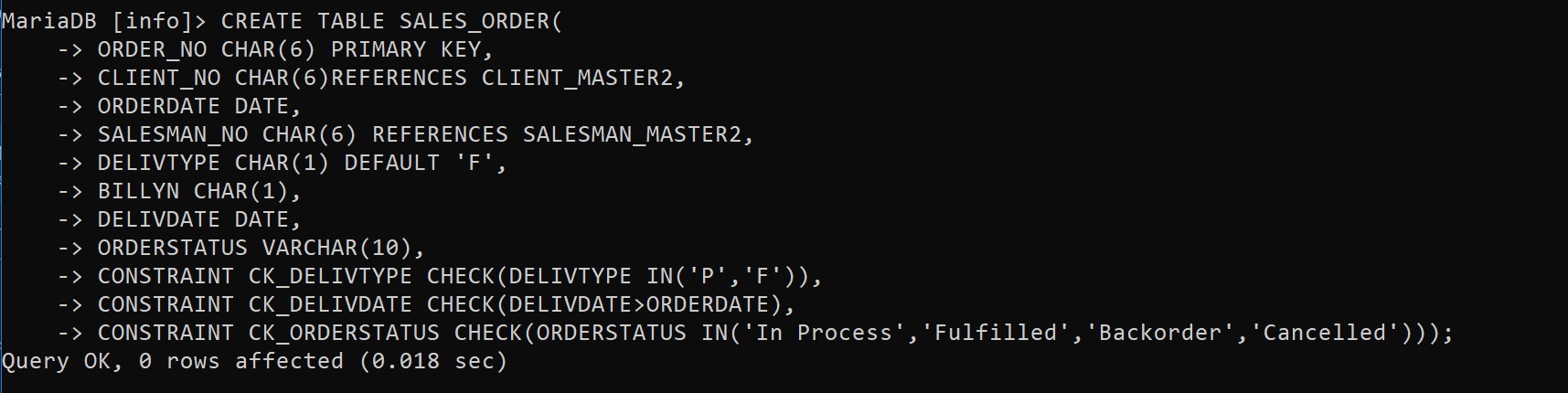
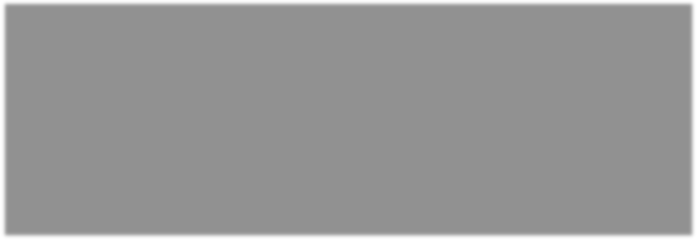
 ORDERSTATUS VARCHAR(10),

 CONSTRAINT CK\_DELIVTYPE CHECK(DELIVTYPE IN('P','F')),

 CONSTRAINT CK\_DELIVDATE CHECK(DELIVDATE>ORDERDATE),

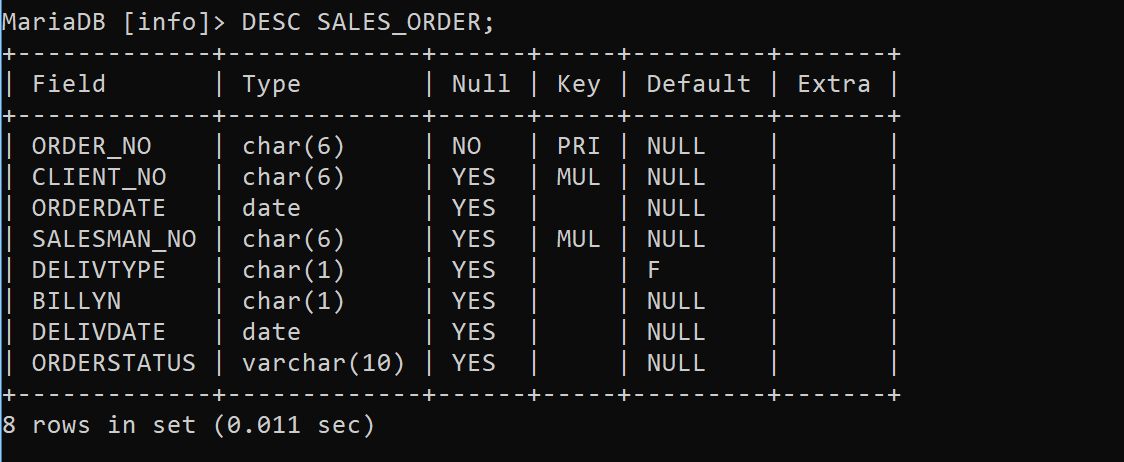
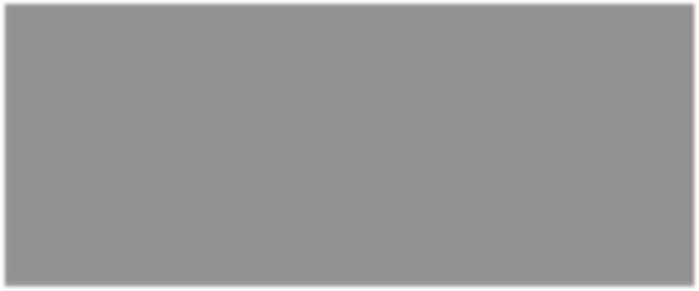
 CONSTRAINT CK\_ORDERSTATUS CHECK(ORDERSTATUS IN('In

Process','Fulfilled','Backorder','Cancelled')));



# Describing Schema of the Table:

 DESCRIBE SALES\_ORDER or DESC SALES\_ORDER;



# Creation of Table:

* 1. **Table Name:** SALES\_ORDER\_DETAILS
  2. **Description:** Used to store Client’s Orders with details of each product.

# Commands for Creating Table:

 CREATE TABLE SALES\_ORDER\_DETAILS(

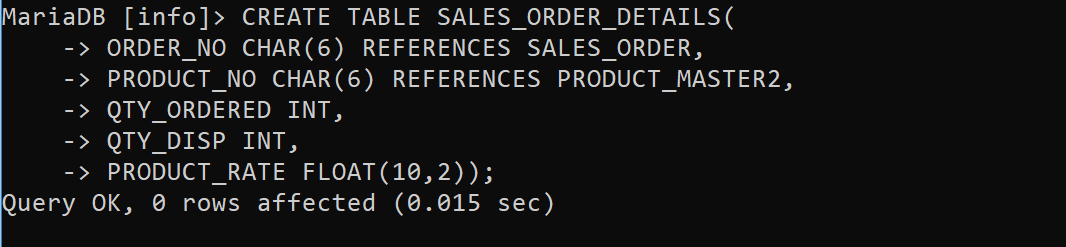
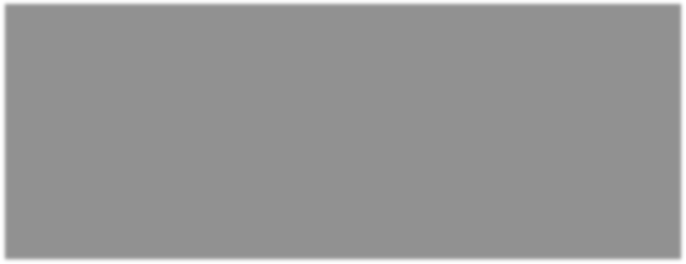
 ORDER\_NO CHAR(6) REFERENCES SALES\_ORDER,

 PRODUCT\_NO CHAR(6) REFERENCES PRODUCT\_MASTER2,

 QTY\_ORDERED INT,

 QTY\_DISP INT,

 PRODUCT\_RATE FLOAT(10,2));



# Describing Schema of the Table: Commands used:

 DESCRIBE SALES\_ORDER\_DETAILS or DESC SALES\_ORDER\_DETAILS;

