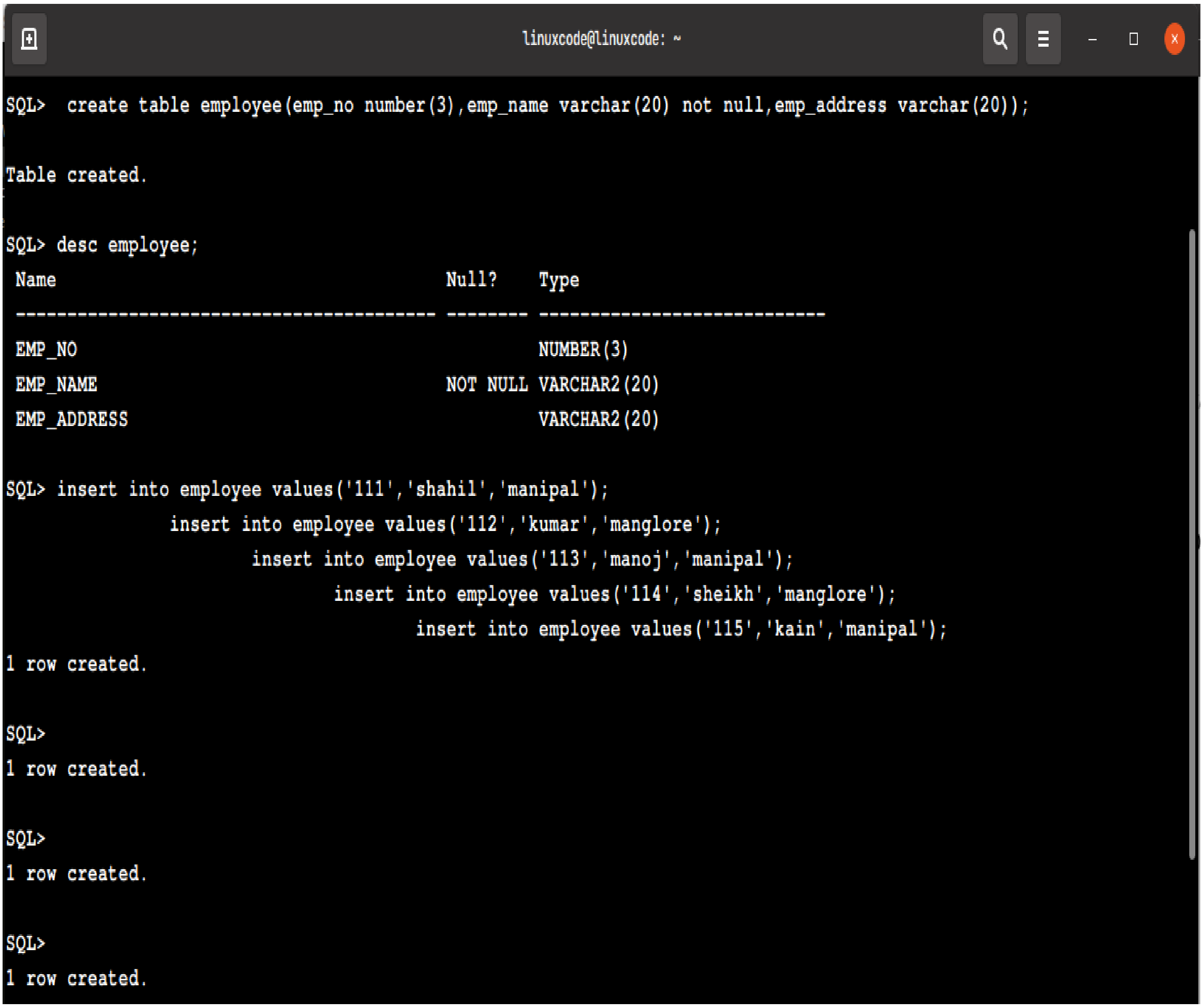
190905514 SECTION C MOHAMMAD TOFIK

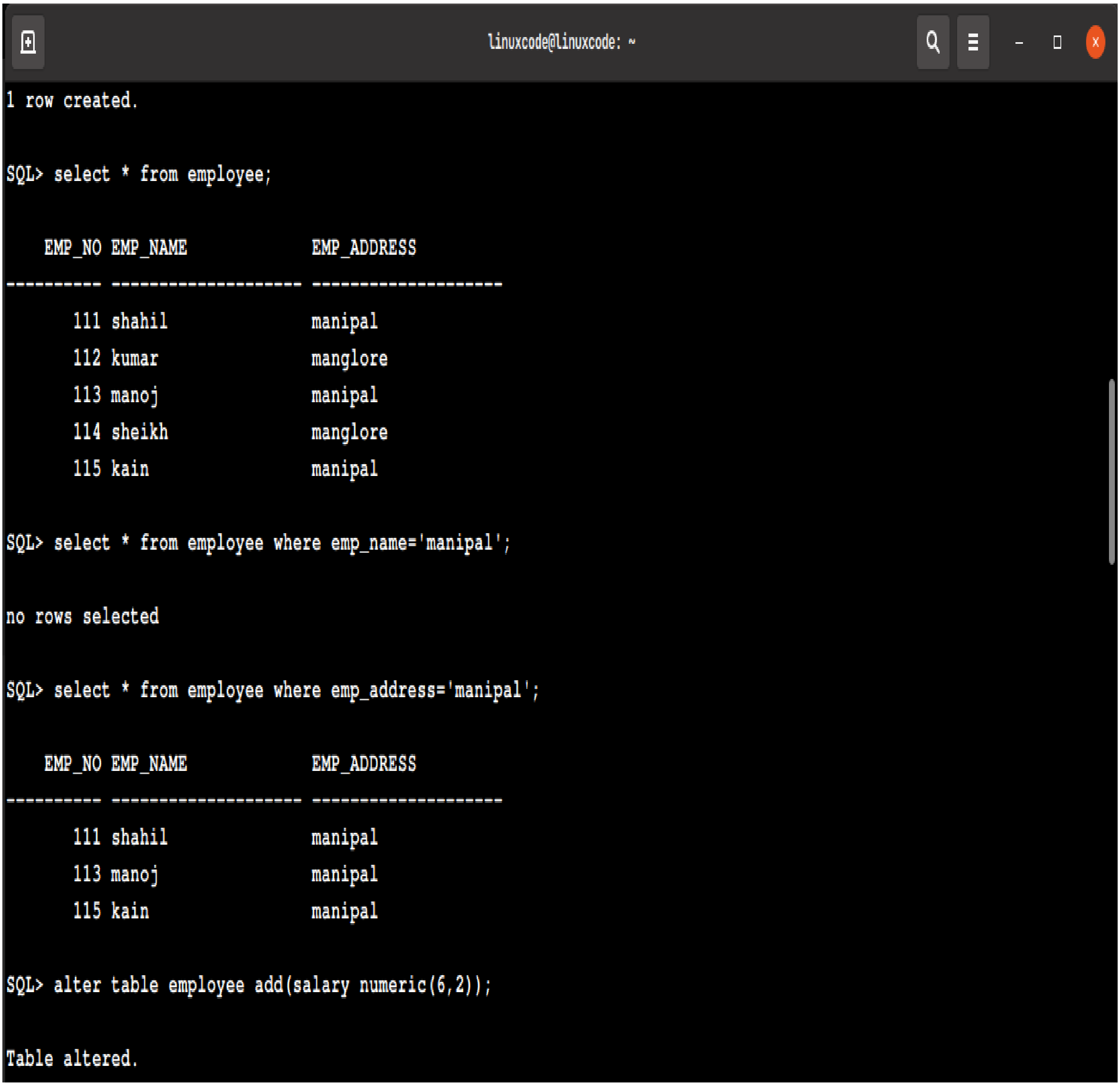
WEEK1 LAB 1 :

LAB EXERCISES 1:

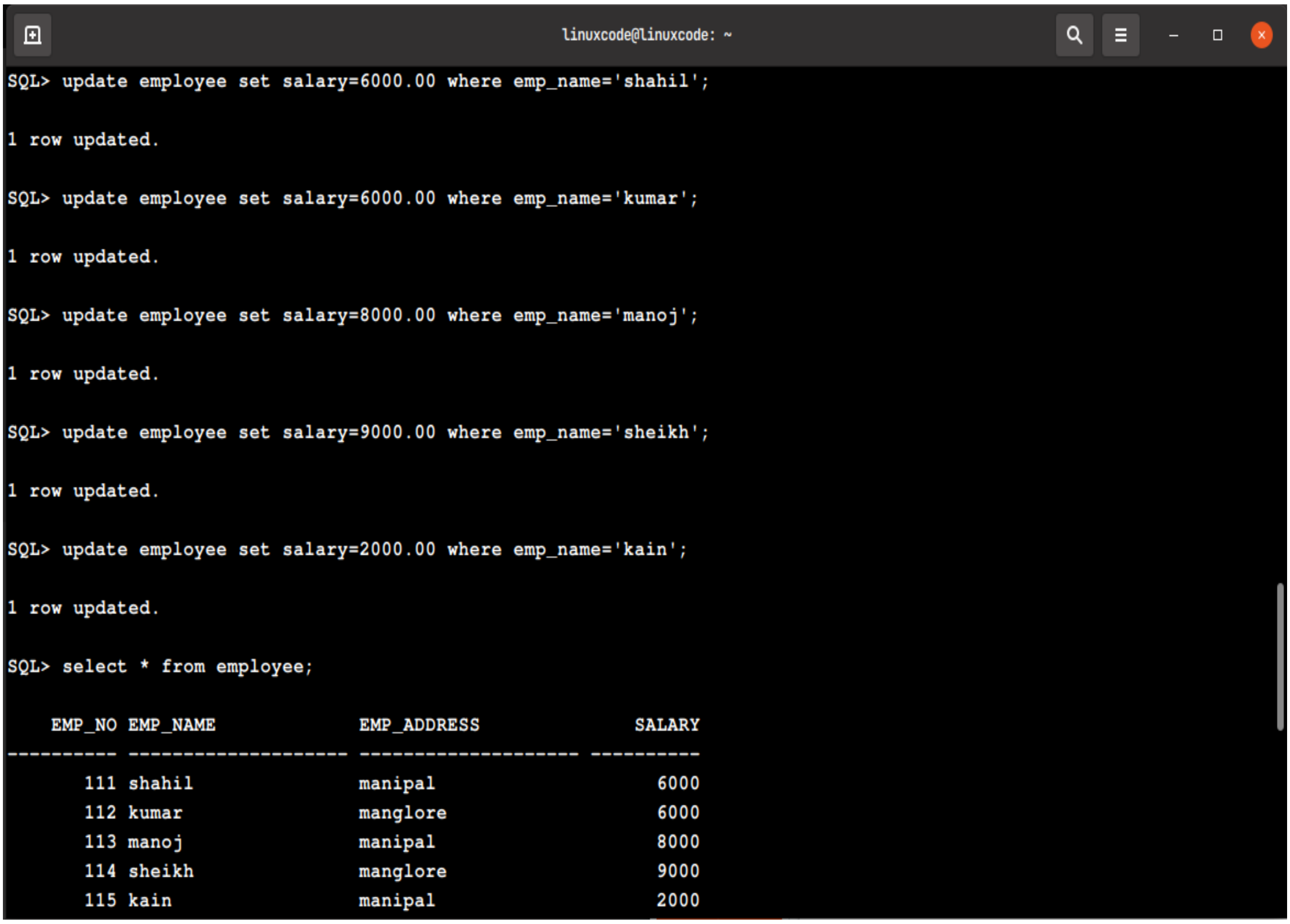
1. Create a table employee with (emp_no, emp_name, emp_address)
2. Insert five employees information.
3. Display names of all employees.
4. Display all the employees from ‘MANIPAL’.
5. Add a column named salary to employee table.
6. Assign the salary for all employees.
7. View the structure of the table employee using describe.
8. Delete all the employees from ‘MANGALORE’
9. Rename employee as employee1.
10. Drop the table employee1.



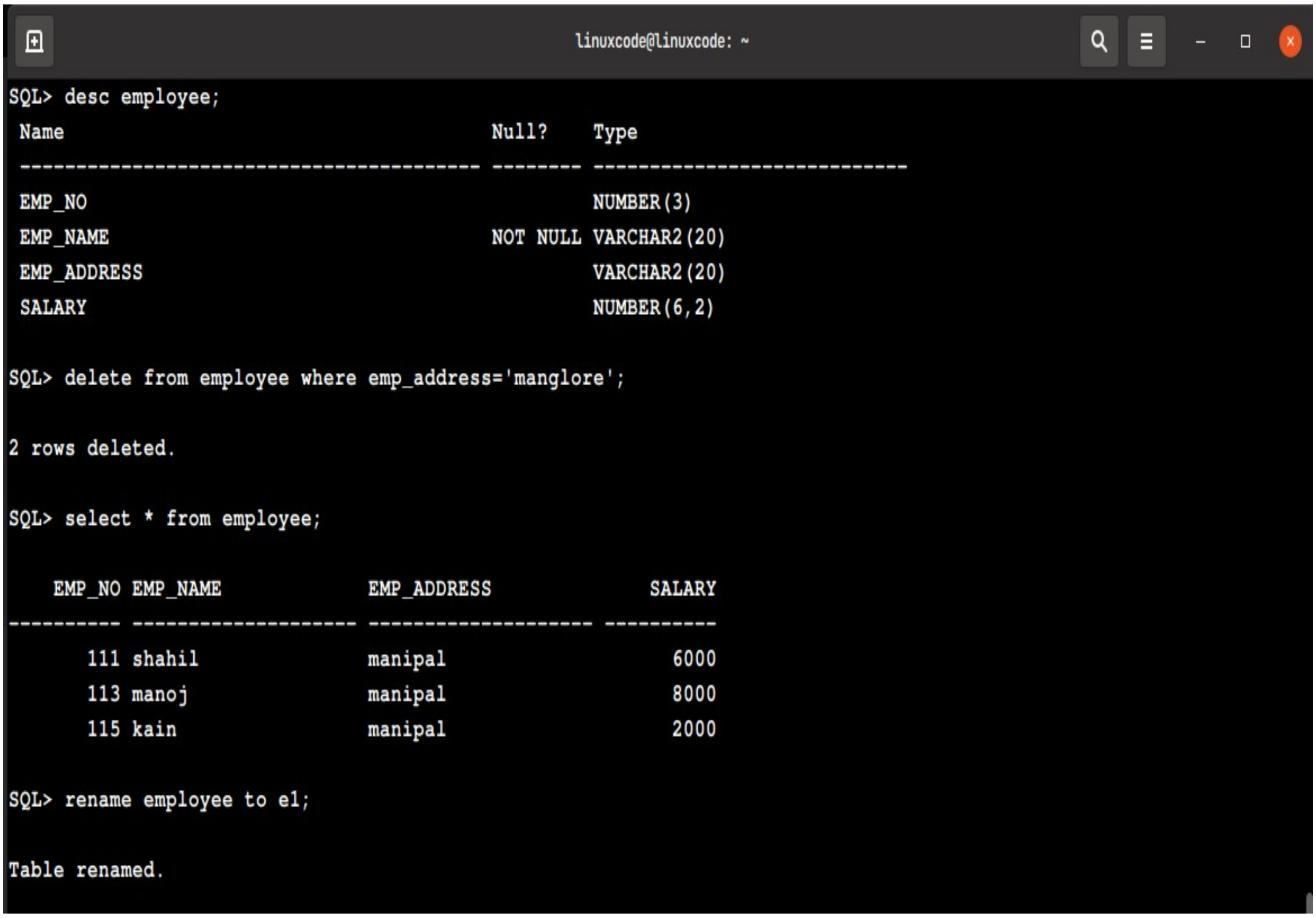
```
SQL>  create table employee(emp_no number(3),emp_name varchar(20) not null,emp_address varchar(20));

Table created.

SQL> desc employee;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EMP_NO                                             NUMBER(3)
 EMP_NAME                                  NOT NULL VARCHAR2(20)
 EMP_ADDRESS                                        VARCHAR2(20)

SQL> insert into employee values('111','shahil','manipal');
           insert into employee values('112','kumar','manglore');
                   insert into employee values('113','manoj','manipal');
                           insert into employee values('114','sheikh','manglore');
                                   insert into employee values('115','kain','manipal');
1 row created.

SQL>
1 row created.

SQL>
1 row created.

SQL>
1 row created.
```



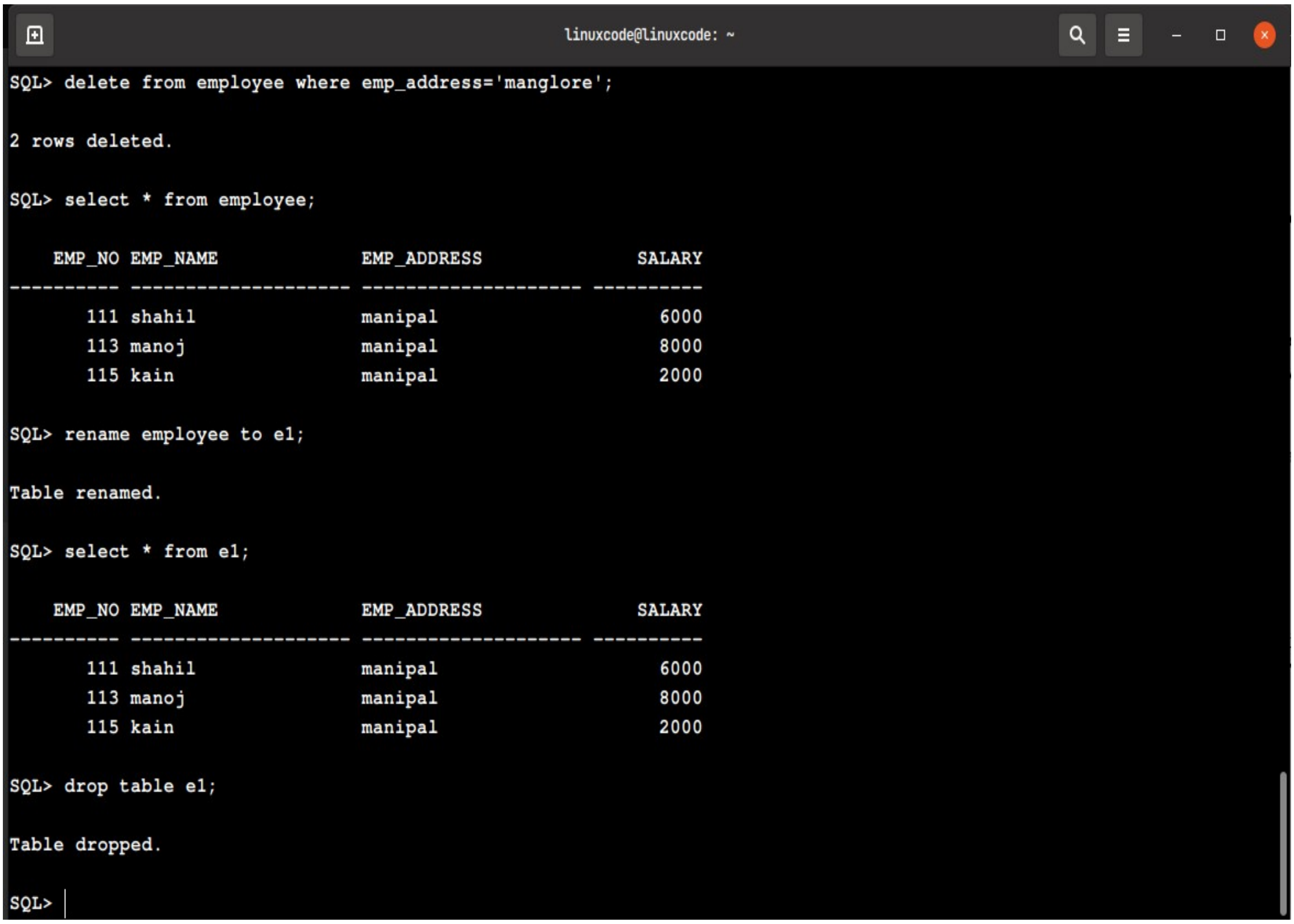
```
1 row created.

SQL> select * from employee;

    EMP_NO EMP_NAME             EMP_ADDRESS
---------- -------------------- --------------------
       111 shahil               manipal
       112 kumar                manglore
       113 manoj                manipal
       114 sheikh               manglore
       115 kain                 manipal

SQL> select * from employee where emp_name='manipal';

no rows selected

SQL> select * from employee where emp_address='manipal';

    EMP_NO EMP_NAME             EMP_ADDRESS
---------- -------------------- --------------------
       111 shahil               manipal
       113 manoj                manipal
       115 kain                 manipal

SQL> alter table employee add(salary numeric(6,2));

Table altered.
```



```
SQL> update employee set salary=6000.00 where emp_name='shahil';

1 row updated.

SQL> update employee set salary=6000.00 where emp_name='kumar';

1 row updated.

SQL> update employee set salary=8000.00 where emp_name='manoj';

1 row updated.

SQL> update employee set salary=9000.00 where emp_name='sheikh';

1 row updated.

SQL> update employee set salary=2000.00 where emp_name='kain';

1 row updated.

SQL> select * from employee;

    EMP_NO EMP_NAME             EMP_ADDRESS              SALARY
---------- -------------------- -------------------- ----------
       111 shahil               manipal                    6000
       112 kumar                manglore                   6000
       113 manoj                manipal                    8000
       114 sheikh               manglore                   9000
       115 kain                 manipal                    2000
```



```
SQL> desc employee;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EMP_NO                                             NUMBER(3)
 EMP_NAME                                  NOT NULL VARCHAR2(20)
 EMP_ADDRESS                                        VARCHAR2(20)
 SALARY                                             NUMBER(6,2)

SQL> delete from employee where emp_address='manglore';

2 rows deleted.

SQL> select * from employee;

    EMP_NO EMP_NAME             EMP_ADDRESS              SALARY
---------- -------------------- -------------------- ----------
       111 shahil               manipal                    6000
       113 manoj                manipal                    8000
       115 kain                 manipal                    2000

SQL> rename employee to e1;

Table renamed.
```



```
SQL> delete from employee where emp_address='manglore';

2 rows deleted.

SQL> select * from employee;

    EMP_NO EMP_NAME             EMP_ADDRESS              SALARY
---------- -------------------- -------------------- ----------
       111 shahil               manipal                    6000
       113 manoj                manipal                    8000
       115 kain                 manipal                    2000

SQL> rename employee to e1;

Table renamed.

SQL> select * from e1;

    EMP_NO EMP_NAME             EMP_ADDRESS              SALARY
---------- -------------------- -------------------- ----------
       111 shahil               manipal                    6000
       113 manoj                manipal                    8000
       115 kain                 manipal                    2000

SQL> drop table e1;

Table dropped.

SQL>
```

1.Implement the Bank Database and execute the given queries/updates

Bank Database Schema:

ACCOUNT(ACCOUNT_NUMBER, BRANCH_NAME, BALANCE)
BRANCH (BRANCH_NAME, BRANCH_CITY, ASSETS)
CUSTOMER (CUSTOMER_NAME CUSTOMER_STREET, CUSTOMER_CITY)
LOAN (LOAN_NUMBER, BRANCH_NAME, AMOUNT)
DEPOSITOR(CUSTOMER_NAME, ACCOUNT_NUMBER)
BORROWER(CUSTOMER_NAME, LOAN_NUMBER)
Creating Tables

```
CREATE TABLE BRANCH
(BRANCH_NAME VARCHAR (15) PRIMARY KEY,
BRANCH_CITY VARCAHAR (20),
ASSETS NUMBER (10));

CREATE TABLE ACCOUNT
(ACCOUNT_NUMBER NUMBER (10) PRIMARY KEY,
BRANCH_NAME VARCHAR (15) REFERENCES BRANCH,
BALANCE NUMBER (8));
```

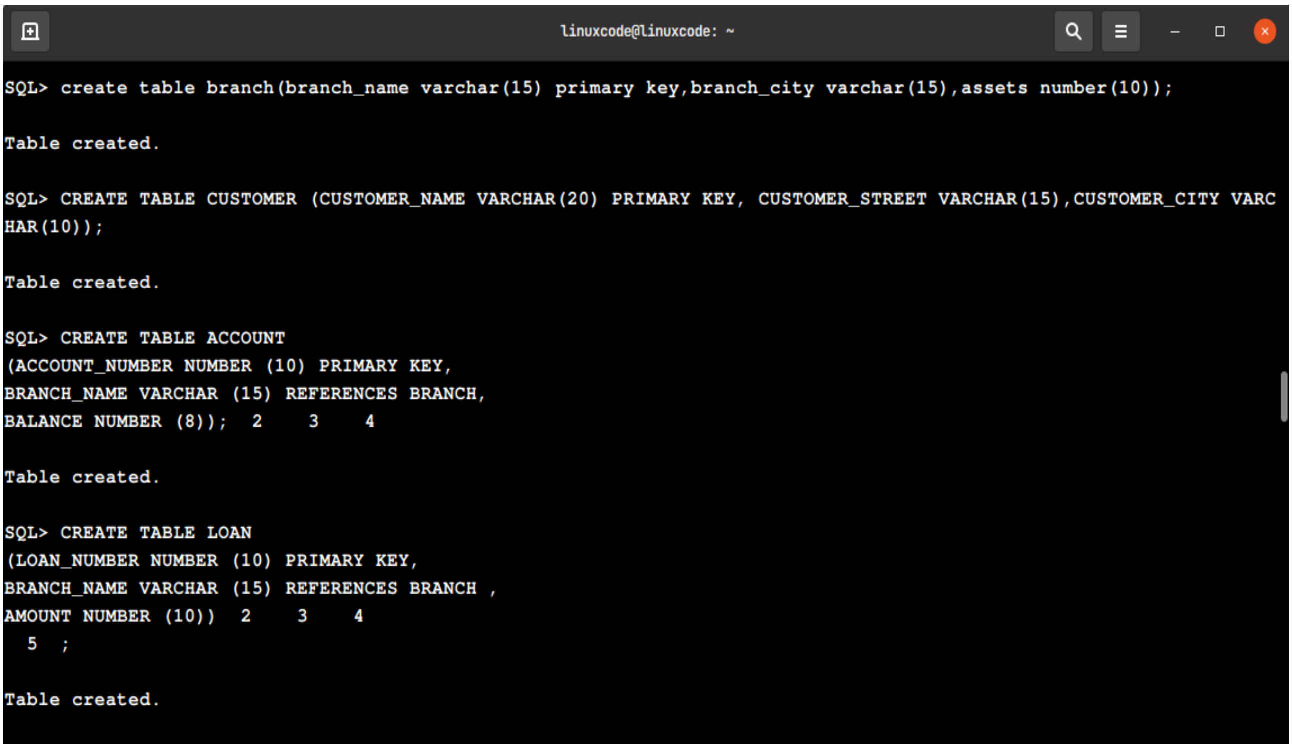
CREATE TABLE CUSTOMER
(CUSTOMER_NAME VARCHAR (20) PRIMARY KEY,
CUSTOMER_STREETVARCHAR (15),
CUSTOMER_CITY VARCHAR (10));

CREATE TABLE LOAN
(LOAN_NUMBER NUMBER (10) PRIMARY KEY,
BRANCH_NAME VARCHAR (15) REFERENCES BRANCH ,
AMOUNT NUMBER (10))

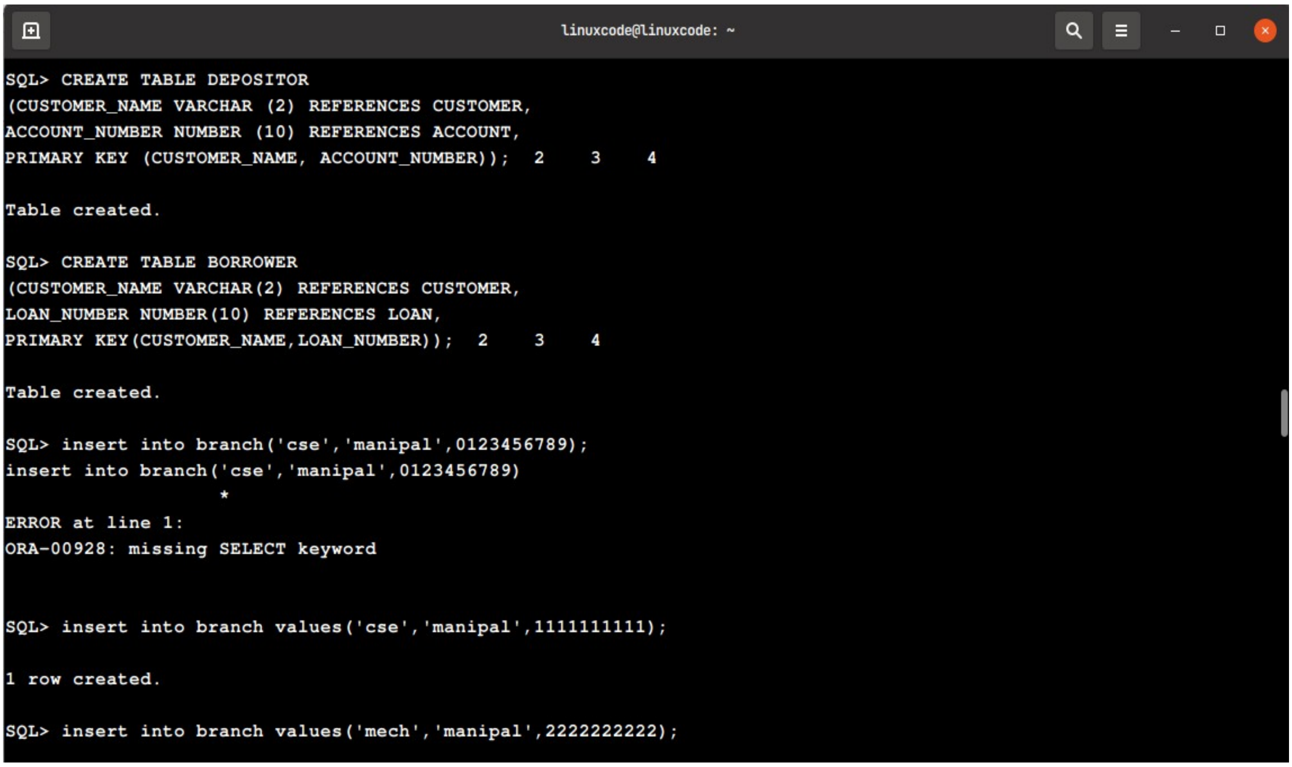
CREATE TABLE DEPOSITOR
(CUSTOMER_NAME VARCHAR (2) REFERENCES CUSTOMER,
ACCOUNT_NUMBER NUMBER (10) REFERENCES ACCOUNT,
PRIMARY KEY (CUSTOMER_NAME, ACCOUNT_NUMBER));

Retrieving records from a table :

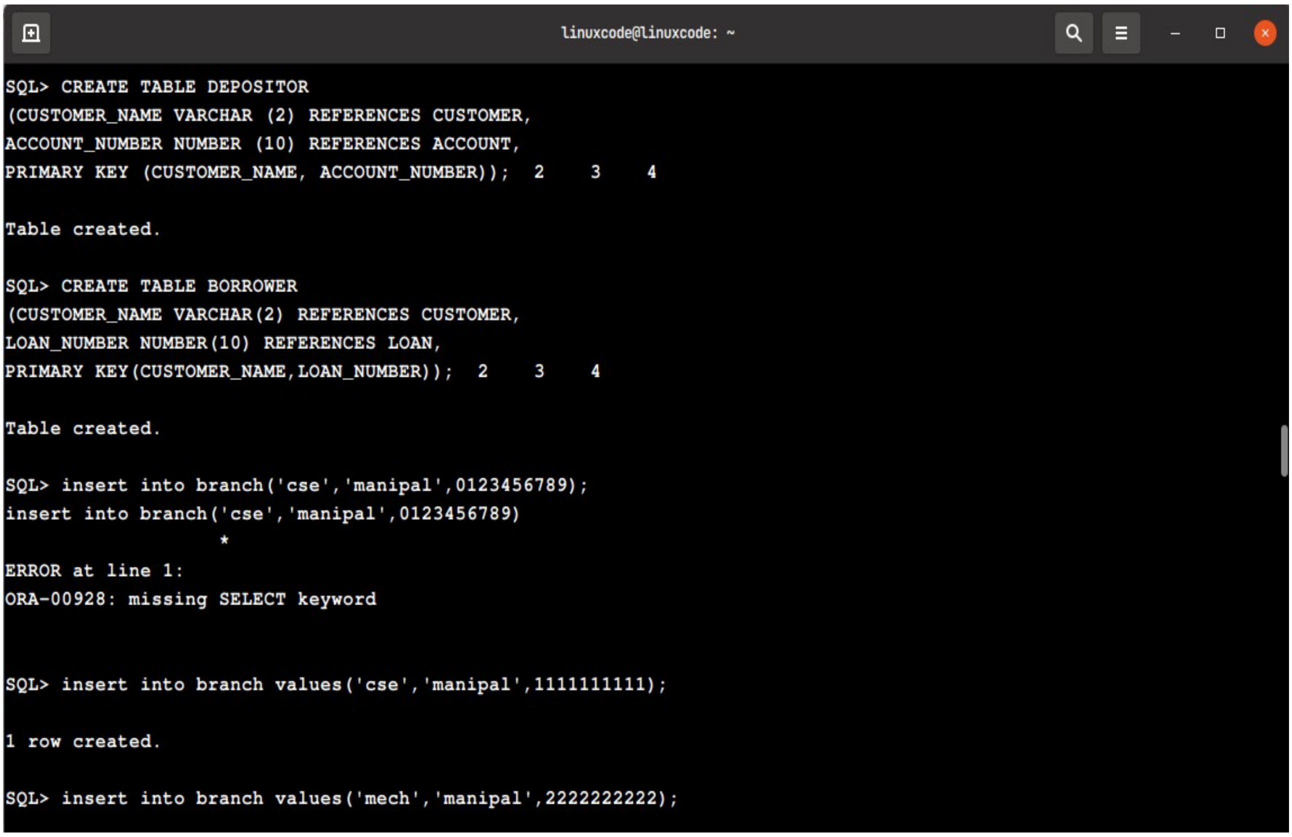
1. list the information of all account holders (name and account number).
Select * from depositor.
2. List all branch names and their assets
SELECT BRANCH_NAME, ASSETS FROM BRANCH;
3. List all accounts of Brooklyn branch
SELECT * FROM ACCOUNT WHERE BRANCH_NAME= ‘BROOKLYN’;
4. List all loans with amount > 1000.
SELECT * FROM LOAN WHERE AMOUNT>1000;
Updating records from a table:
4. Change the assets of Perryridge branch to 340000000.
UPDATE BRANCH SET ASSETS=340000000
WHERE BRANCH_NAME=‘cse’;



```
SQL> create table branch(branch_name varchar(15) primary key,branch_city varchar(15),assets number(10));

Table created.

SQL> CREATE TABLE CUSTOMER (CUSTOMER_NAME VARCHAR(20) PRIMARY KEY, CUSTOMER_STREET VARCHAR(15),CUSTOMER_CITY VARC
HAR(10));

Table created.

SQL> CREATE TABLE ACCOUNT
(ACCOUNT_NUMBER NUMBER (10) PRIMARY KEY,
BRANCH_NAME VARCHAR (15) REFERENCES BRANCH,
BALANCE NUMBER (8));  2    3    4

Table created.

SQL> CREATE TABLE LOAN
(LOAN_NUMBER NUMBER (10) PRIMARY KEY,
BRANCH_NAME VARCHAR (15) REFERENCES BRANCH ,
AMOUNT NUMBER (10))  2    3    4
  5  ;

Table created.
```



```
SQL> CREATE TABLE DEPOSITOR
(CUSTOMER_NAME VARCHAR (2) REFERENCES CUSTOMER,
ACCOUNT_NUMBER NUMBER (10) REFERENCES ACCOUNT,
PRIMARY KEY (CUSTOMER_NAME, ACCOUNT_NUMBER));  2    3    4

Table created.

SQL> CREATE TABLE BORROWER
(CUSTOMER_NAME VARCHAR(2) REFERENCES CUSTOMER,
LOAN_NUMBER NUMBER(10) REFERENCES LOAN,
PRIMARY KEY(CUSTOMER_NAME,LOAN_NUMBER));  2    3    4

Table created.

SQL> insert into branch('cse','manipal',0123456789);
insert into branch('cse','manipal',0123456789)
                   *
ERROR at line 1:
ORA-00928: missing SELECT keyword


SQL> insert into branch values('cse','manipal',1111111111);

1 row created.

SQL> insert into branch values('mech','manipal',2222222222);
```



linuxcode@linuxcode: ~

```
SQL> CREATE TABLE DEPOSITOR
(CUSTOMER_NAME VARCHAR (2) REFERENCES CUSTOMER,
ACCOUNT_NUMBER NUMBER (10) REFERENCES ACCOUNT,
PRIMARY KEY (CUSTOMER_NAME, ACCOUNT_NUMBER));  2    3    4

Table created.

SQL> CREATE TABLE BORROWER
(CUSTOMER_NAME VARCHAR(2) REFERENCES CUSTOMER,
LOAN_NUMBER NUMBER(10) REFERENCES LOAN,
PRIMARY KEY(CUSTOMER_NAME,LOAN_NUMBER));  2    3    4

Table created.

SQL> insert into branch('cse','manipal',0123456789);
insert into branch('cse','manipal',0123456789)
                   *
ERROR at line 1:
ORA-00928: missing SELECT keyword


SQL> insert into branch values('cse','manipal',1111111111);

1 row created.

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```
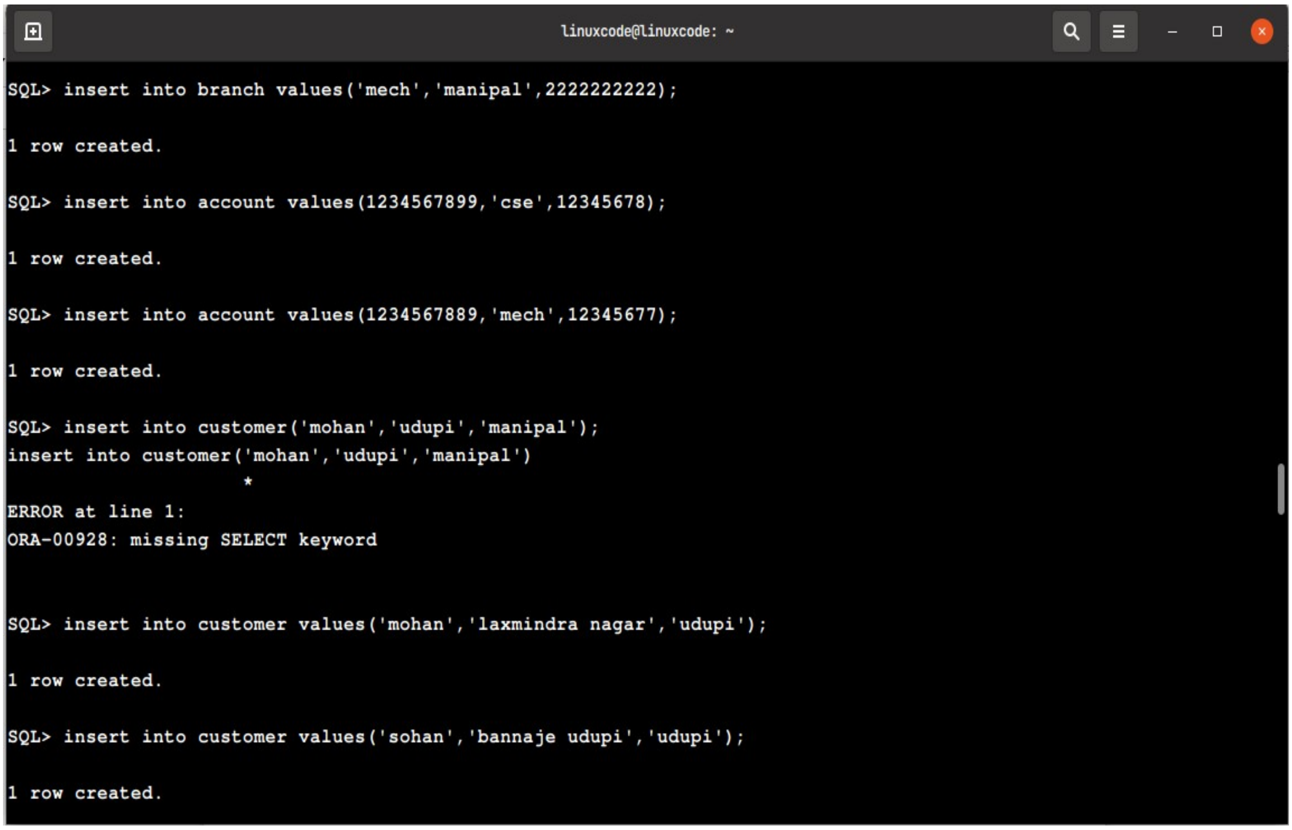
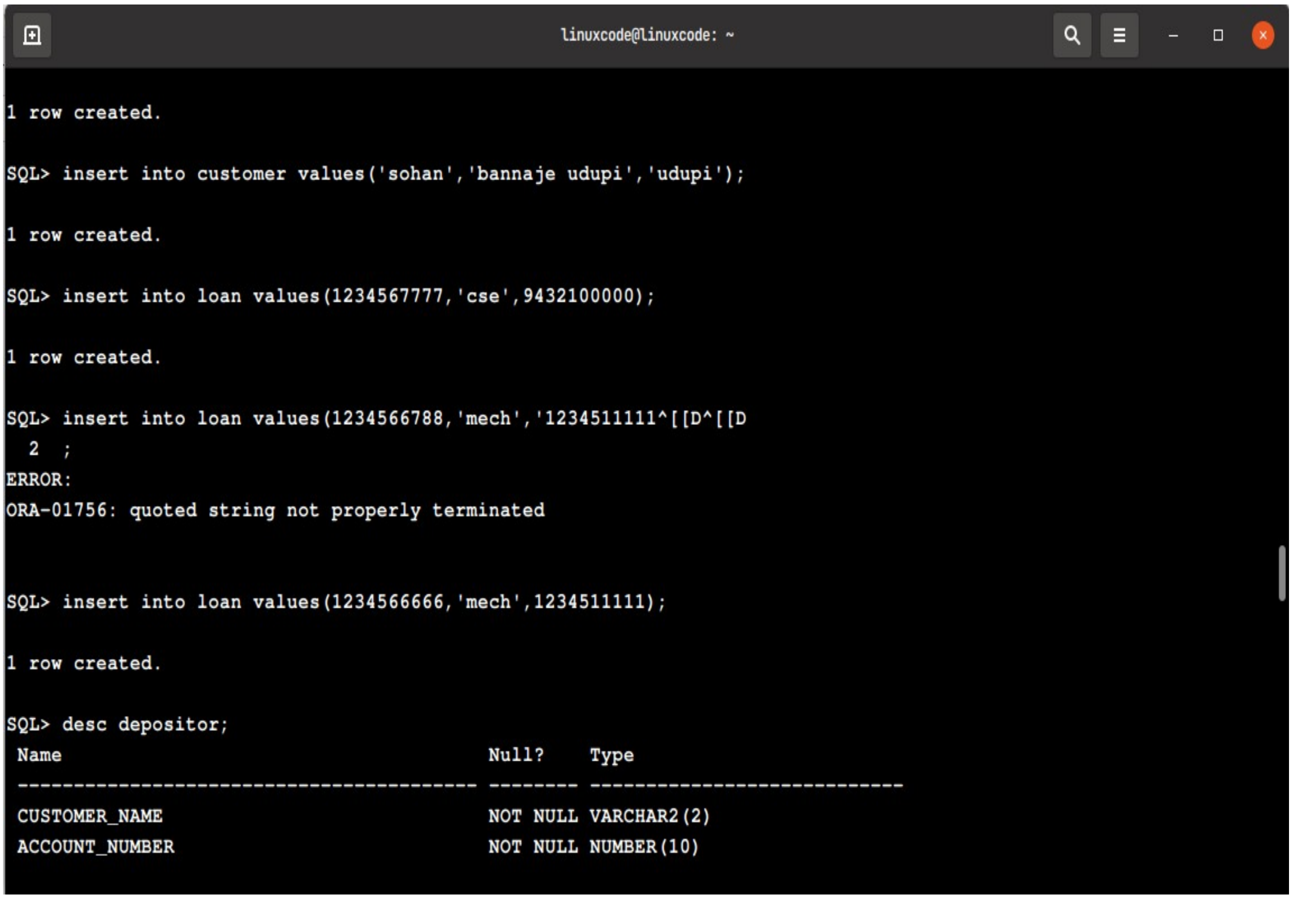
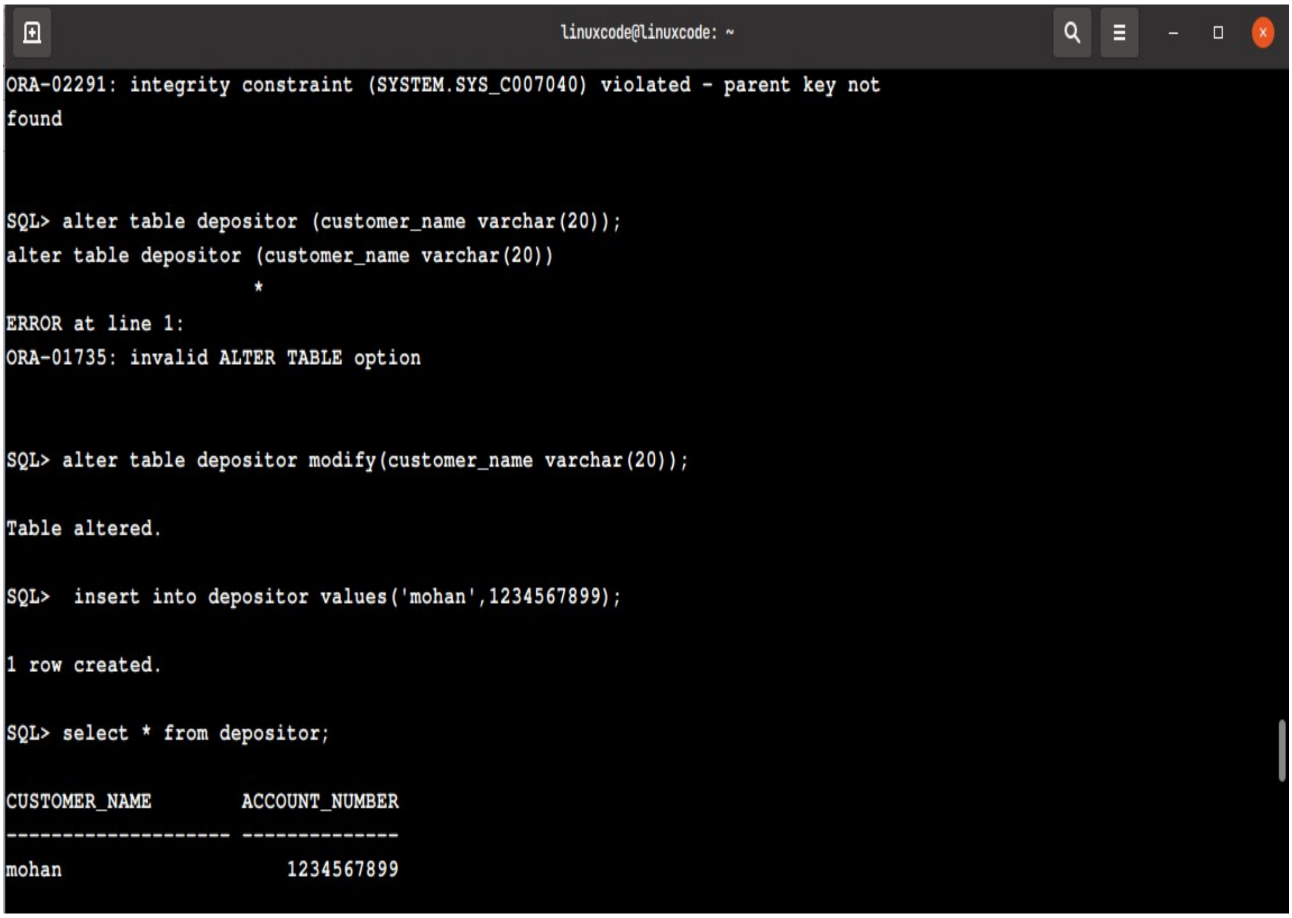



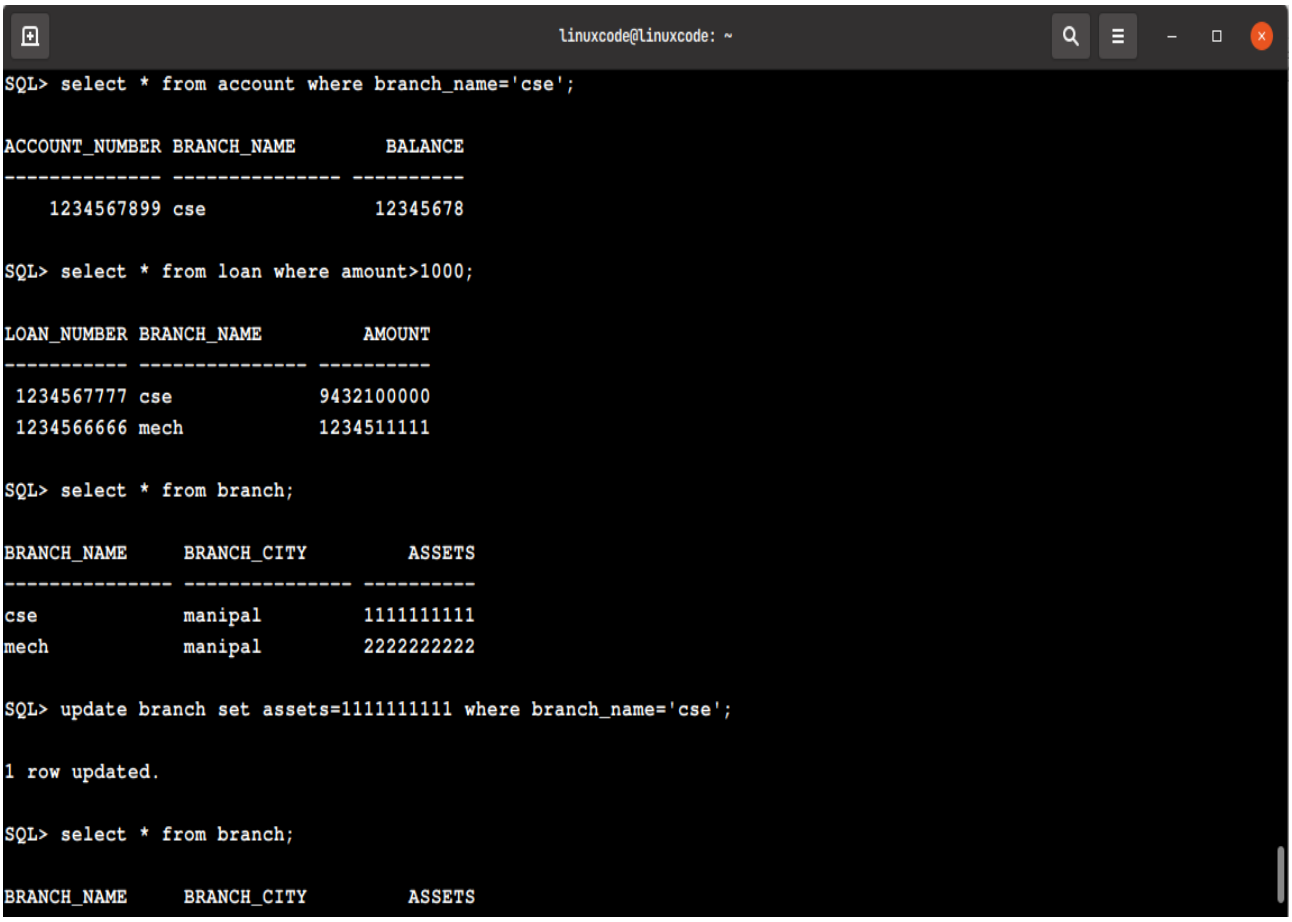
```
SQL> insert into branch values('mech','manipal',2222222222);

1 row created.

SQL> insert into account values(1234567899,'cse',12345678);

1 row created.

SQL> insert into account values(1234567889,'mech',12345677);

1 row created.

SQL> insert into customer('mohan','udupi','manipal');
insert into customer('mohan','udupi','manipal')
                     *
ERROR at line 1:
ORA-00928: missing SELECT keyword


SQL> insert into customer values('mohan','laxmindra nagar','udupi');

1 row created.

SQL> insert into customer values('sohan','bannaje udupi','udupi');

1 row created.
```



```
1 row created.

SQL> insert into customer values('sohan','bannaje udupi','udupi');

1 row created.

SQL> insert into loan values(1234567777,'cse',9432100000);

1 row created.

SQL> insert into loan values(1234566788,'mech','1234511111^[[D^[[D
  2  ;
ERROR:
ORA-01756: quoted string not properly terminated


SQL> insert into loan values(1234566666,'mech',1234511111);

1 row created.

SQL> desc depositor;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CUSTOMER_NAME                             NOT NULL VARCHAR2(2)
 ACCOUNT_NUMBER                            NOT NULL NUMBER(10)
```



```
ORA-02291: integrity constraint (SYSTEM.SYS_C007040) violated - parent key not
found


SQL> alter table depositor (customer_name varchar(20));
alter table depositor (customer_name varchar(20))
                      *
ERROR at line 1:
ORA-01735: invalid ALTER TABLE option


SQL> alter table depositor modify(customer_name varchar(20));

Table altered.

SQL>  insert into depositor values('mohan',1234567899);

1 row created.

SQL> select * from depositor;

CUSTOMER_NAME        ACCOUNT_NUMBER
-------------------- --------------
mohan                    1234567899
```



```
SQL> select * from account where branch_name='cse';

ACCOUNT_NUMBER BRANCH_NAME        BALANCE
-------------- --------------- ----------
    1234567899 cse               12345678

SQL> select * from loan where amount>1000;

LOAN_NUMBER BRANCH_NAME         AMOUNT
----------- --------------- ----------
 1234567777 cse             9432100000
 1234566666 mech            1234511111

SQL> select * from branch;

BRANCH_NAME     BRANCH_CITY         ASSETS
--------------- --------------- ----------
cse             manipal         1111111111
mech            manipal         2222222222

SQL> update branch set assets=1111111111 where branch_name='cse';

1 row updated.

SQL> select * from branch;

BRANCH_NAME     BRANCH_CITY         ASSETS
```