

Moeenul Islam-21MCA0269

Exercise – 1

1. Create the table described below:

Table Name: Employee
Column Name Data Type
Employeeeno Varchar2(6)
Name Varchar2(20)
Address Varchar2(30)
City Varchar2(10)
Pincode Number(8)
State Varchar2(15)

```
SQL> create table Employee(Employeeeno Varchar2(6), Name Varchar2(20), Address Varchar2(10), City Varchar2(10), Pincode Number(8), State Varchar2(15));
Table created.
SQL> desc employee
Name                               Null?    Type
-----
EMPLOYEEENO                        VARCHAR2(6)
NAME                               VARCHAR2(20)
ADDRESS                           VARCHAR2(10)
CITY                              VARCHAR2(10)
PINCODE                            NUMBER(8)
STATE                             VARCHAR2(15)
SQL>
```

2. Insert the following data into the table

Employeeeno	Name	Address	City	Pincode	State
E00001	Bobby	B/16, Butterfly Garden	Chennai	400125	Tamilnadu
E00002	Jaya	444, Juhu	Mumbai	890012	Maharashtra
E00003	Vasavi	58K, Tilak Nagar	Banagalore	988233	Karnataka
E00004	Sanjay	89G, North Street	Almora	895623	Uttarakhand
E00005	Sarita	D/57, Rose Garden	Chennai	400125	tamilnadu
E00006	Divya	897, Aanand Bihar	Mumbai	890012	Maharashtra

```
SQL Plus
SQL> insert into employee values ('&EMPLOYEEENO', '&NAME', '&ADDRESS', '&CITY', &PINCODE, '&STATE');
Enter value for employeeeno: E0001
Enter value for name: Bobby
Enter value for address: B/16, Butterfly Garden
Enter value for city: Chennai
Enter value for pincode: 400125
Enter value for state: Tamilnadu
old 1: insert into employee values ('&EMPLOYEEENO', '&NAME', '&ADDRESS', '&CITY', &PINCODE, '&STATE')
new 1: insert into employee values ('E0001', 'Bobby', 'B/16, Butterfly Garden', 'Chennai', 400125, 'Tamilnadu')

1 row created.

SQL> /
Enter value for employeeeno: E0002
Enter value for name: Jaya
Enter value for address: 444, Juhu
Enter value for city: Mumbai
Enter value for pincode: 8900012
Enter value for state: Maharastra
old 1: insert into employee values ('&EMPLOYEEENO', '&NAME', '&ADDRESS', '&CITY', &PINCODE, '&STATE')
new 1: insert into employee values ('E0002', 'Jaya', '444, Juhu', 'Mumbai', 8900012, 'Maharastra')

1 row created.

SQL> /
Enter value for employeeeno: E0003
Enter value for name: Vasavi
Enter value for address: 58K, Tilak Nagar
Enter value for city: Bangalore
Enter value for pincode: 988233
Enter value for state: Karnataka
old 1: insert into employee values ('&EMPLOYEEENO', '&NAME', '&ADDRESS', '&CITY', &PINCODE, '&STATE')
new 1: insert into employee values ('E0003', 'Vasavi', '58K, Tilak Nagar', 'Bangalore', 988233, 'Karnataka')

1 row created.

SQL> /
Enter value for employeeeno: E0004
Enter value for name: Sanjay
Enter value for address: 89G, North Street
Enter value for city: Almora
Enter value for pincode: 895623
Enter value for state: Uttarakhand
old 1: insert into employee values ('&EMPLOYEEENO', '&NAME', '&ADDRESS', '&CITY', &PINCODE, '&STATE')
```

3. Retrieving records from a table

(a) Find out the names of all employees.

```
SQL Plus

SQL> select name from employee;

NAME
-----
Bobby
Jaya
Vasavi
Sanjay
Sarita
Divya

6 rows selected.
```

(b) Retrieve the entire contents of the employee table.

```
SQL> select * from employee;

EMPLOY NAME          ADDRESS                CITY          PINCODE
-----
STATE
-----
E0001 Bobby
Tamilnadu            B/16, Butterfly Garden    Chennai      400125
E0002 Jaya
Maharashtra          444, Juhu                 Mumbai       8900012
E0003 Vasavi
Karnataka             58K,Tilak Nagar          Bangalore    988233
EMPLOY NAME          ADDRESS                CITY          PINCODE
-----
STATE
-----
E0004 Sanjay
Uttarakhand          89G, North Street        Almora       895623
E0005 Sarita
Tamilnadu            D/57, Rose Garden        Chennai      400125
E0006 Divya
Maharashtra          897, Aanand Bihar        Mumbai       890012
```

(c) List all the employees who are residing at Chennai.

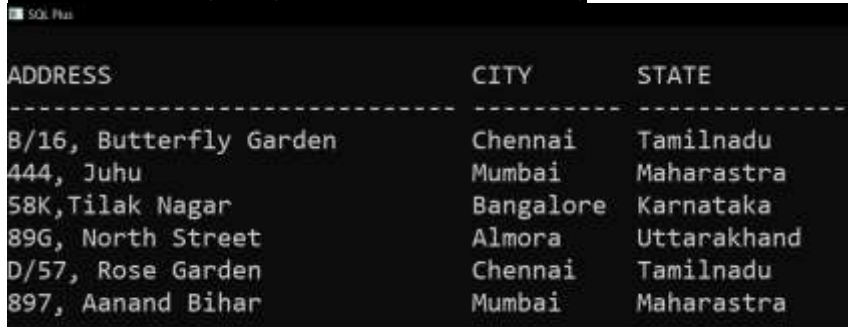
```
SQL Plus

SQL> select * from employee where city = 'Chennai';

EMPLOY NAME          ADDRESS                CITY          PINCODE
-----
STATE
-----
E0001 Bobby
Tamilnadu            B/16, Butterfly Garden    Chennai      400125
E0005 Sarita
Tamilnadu            D/57, Rose Garden        Chennai      400125
```

(d) Retrieve the list of address, city and state of all the employees.

```
SELECT ADDRESS, CITY, STATE FROM EMPLOYEE;
```

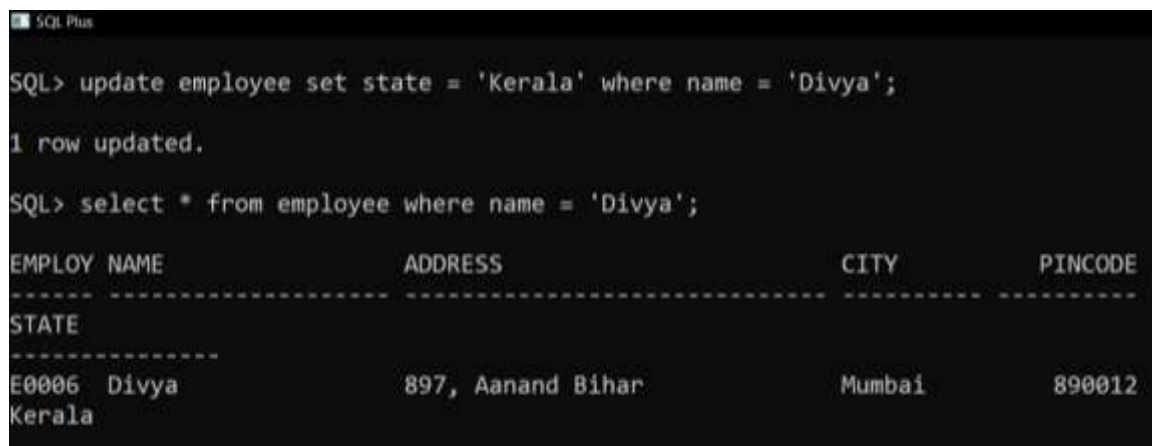


The screenshot shows the output of the SQL query 'SELECT ADDRESS, CITY, STATE FROM EMPLOYEE;'. The results are displayed in a table with three columns: ADDRESS, CITY, and STATE. The data is as follows:

ADDRESS	CITY	STATE
B/16, Butterfly Garden	Chennai	Tamilnadu
444, Juhu	Mumbai	Maharashtra
58K, Tilak Nagar	Bangalore	Karnataka
89G, North Street	Almora	Uttarakhand
D/57, Rose Garden	Chennai	Tamilnadu
897, Aanand Bihar	Mumbai	Maharashtra

4. Updating records in a table

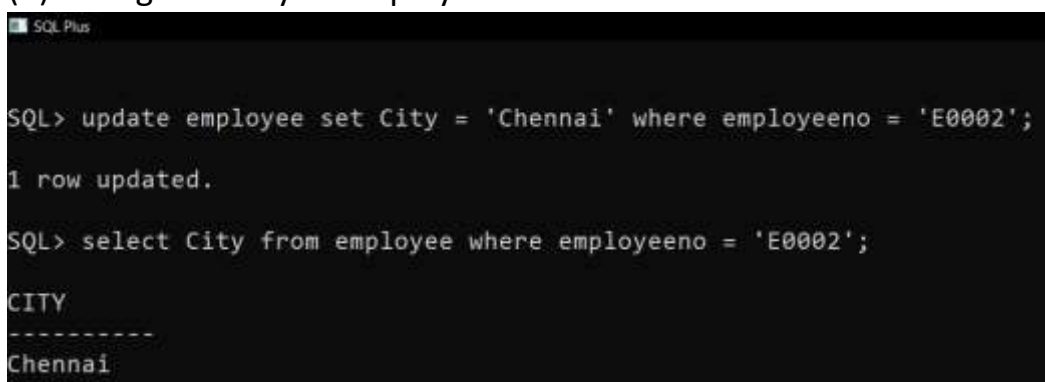
(a) Change the state of 'Divya' 'Maharashtra' to 'Kerala'.



The screenshot shows the execution of an UPDATE query in SQL Plus. The query is 'SQL> update employee set state = 'Kerala' where name = 'Divya';'. The output is '1 row updated.'. Then, a SELECT query is executed: 'SQL> select * from employee where name = 'Divya';'. The result is shown in a table with columns EMPLOY NAME, ADDRESS, CITY, PINCODE, and STATE. The data is as follows:

EMPLOY NAME	ADDRESS	CITY	PINCODE	STATE
E0006 Divya	897, Aanand Bihar	Mumbai	890012	Kerala

(b) Change the city of employee no 'E00002' to 'Chennai'.



The screenshot shows the execution of an UPDATE query in SQL Plus. The query is 'SQL> update employee set City = 'Chennai' where employeeno = 'E0002';'. The output is '1 row updated.'. Then, a SELECT query is executed: 'SQL> select City from employee where employeeno = 'E0002';'. The result is shown in a table with column CITY. The data is as follows:

CITY
Chennai

5. Deleting records in a table

(a) Delete from employee where the column city holds the value 'Almora'.

```
SQL Plus

SQL> delete from employee where city = 'Almora';

1 row deleted.

SQL> select * from employee;

EMPLOY NAME          ADDRESS          CITY          PINCODE
-----
STATE
-----
E0001 Bobby          B/16, Butterfly Garden      Chennai      400125
Tamilnadu
E0002 Jaya          444, Juhu          Chennai      8900012
Maharashtra
E0003 Vasavi          58K,Tilak Nagar      Bangalore      988233
Karnataka
```

(b) Delete all employees from employee table where employeeno is equal to E00005.

```
SQL Plus

SQL> delete from employee where employeeno = 'E0005';

1 row deleted.
```

6. Altering the table structure

(a) Add a column call phonenumber of data type number10 to the employee.

```
SQL> alter table employee add cell_phone_number Number(10);

Table altered.

SQL> desc employee;

Name          Null?    Type
-----
EMPLOYEEENO          VARCHAR2(6)
NAME                 VARCHAR2(20)
ADDRESS              VARCHAR2(30)
CITY                 VARCHAR2(10)
PINCODE              NUMBER(8)
STATE                VARCHAR2(15)
CELL_PHONE_NUMBER     NUMBER(10)
```

(b) Change the size of city column in employee to 13.

```
SQL> alter table employee modify City Varchar2(13);

Table altered.

SQL> desc employee;
Name                               Null?      Type
-----
EMPLOYEEENO                        VARCHA2(6)
NAME                               VARCHA2(20)
ADDRESS                            VARCHA2(30)
CITY                               VARCHA2(13)
PINCODE                            NUMBER(8)
STATE                              VARCHA2(15)
CELL_PHONE_NUMBER                  NUMBER(10)
```

(c) Change the name of the column phonenumber to contactnumber in employee.

```
SQL Plus

SQL> alter table employee rename column cell_phone_number to contact_number;

Table altered.

SQL> desc employee;
Name                               Null?      Type
-----
EMPLOYEEENO                        VARCHA2(6)
NAME                               VARCHA2(20)
ADDRESS                            VARCHA2(30)
CITY                               VARCHA2(13)
PINCODE                            NUMBER(8)
STATE                              VARCHA2(15)
CONTACT_NUMBER                     NUMBER(10)
```

(d) Drop the column pincodes.

```
SQL> alter table employee drop column pincode;

Table altered.

SQL> desc employee;
Name                               Null?      Type
-----
EMPLOYEEENO                        VARCHA2(6)
NAME                               VARCHA2(20)
ADDRESS                            VARCHA2(30)
CITY                               VARCHA2(13)
STATE                              VARCHA2(15)
CONTACT_NUMBER                     NUMBER(10)
```

(e) Drop the table employee along with its data.

SQL Plus

```
SQL> drop table employee;
```

```
Table dropped.
```