Creating and using database labsheet3;

```
MariaDB [(none)]> create database labsheet3;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> use labsheet3;
Database changed
```

1. Query to create a table employee with empno, ename, designation, and Salary:

```
MariaDB [labsheet3]> create table employee
    -> (empno    varchar(15),
    -> ename     varchar(20) not null,
    -> designation      varchar(30),
    -> salary    numeric(8,2) check (salary > 30000),
    -> primary key(empno)
    -> );
Query OK, 0 rows affected (0.48 sec)
```

2. Query to display the column name and datatype of the table employee:

```
MariaDB [labsheet3]> describe employee;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(15)  | NO   | PRI | NULL    |       |
| ename       | varchar(20)  | NO   |     | NULL    |       |
| designation | varchar(30)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.04 sec)
```

3. Query for create a from an existing table with all the fields:

```
MariaDB [labsheet3]> create table instructor as select * from employee;
Query OK, 0 rows affected (0.24 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe instructor;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(15)  | NO   |     | NULL    |       |
| ename       | varchar(20)  | NO   |     | NULL    |       |
| designation | varchar(30)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.02 sec)
```

4. Query for create a from an existing table with selected fields:

```
MariaDB [labsheet3]> create table workers select empno,ename
    -> from employee;
Query OK, 0 rows affected (0.24 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe workers;
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| empno | varchar(15) | NO   |     | NULL    |       |
| ename | varchar(20) | NO   |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
2 rows in set (0.02 sec)
```

5. Query for create a new table from an existing table without any record:

```
MariaDB [labsheet3]> create table agents
    -> as select * from employee
    -> where salary < 30000;
Query OK, 0 rows affected (0.25 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe agents;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(15)  | NO   |     | NULL    |       |
| ename       | varchar(20)  | NO   |     | NULL    |       |
| designation | varchar(30)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

6. Query to Alter the column EMPNO NUMBER (4) TO EMPNO NUMBER(6):

```
MariaDB [labsheet3]> alter table employee
    -> modify empno varchar(6);
Query OK, 0 rows affected (0.73 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(6)   | NO   | PRI | NULL    |       |
| ename       | varchar(20)  | NO   |     | NULL    |       |
| designation | varchar(30)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.09 sec)
```

6b.Query to Alter the table employee with multiple columns (EMPNO,ENAME.):

```
MariaDB [labsheet3]> alter table employee
    -> modify ename varchar(30),
    -> modify designation varchar(40);
Query OK, 0 rows affected (0.59 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(6)   | NO   | PRI | NULL    |       |
| ename       | varchar(30)  | YES  |     | NULL    |       |
| designation | varchar(40)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.05 sec)
```

7. **Query to add a new column in to employee:**

```
MariaDB [labsheet3]> alter table employee
    -> add (department varchar(25));
Query OK, 0 rows affected (0.46 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| empno       | varchar(6)   | NO   | PRI | NULL    |       |
| ename       | varchar(30)  | YES  |     | NULL    |       |
| designation | varchar(40)  | YES  |     | NULL    |       |
| salary      | decimal(8,2) | YES  |     | NULL    |       |
| department  | varchar(25)  | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
5 rows in set (0.01 sec)
```

8. Query to add multiple columns in to employee:

```
MariaDB [labsheet3]> alter table employee
    -> add (address varchar(30),
    -> phonenumber numeric(10)
    -> );
Query OK, 0 rows affected (0.50 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| empno       | varchar(6)    | NO   | PRI | NULL    |       |
| ename       | varchar(30)   | YES  |     | NULL    |       |
| designation | varchar(40)   | YES  |     | NULL    |       |
| salary      | decimal(8,2)  | YES  |     | NULL    |       |
| department  | varchar(25)   | YES  |     | NULL    |       |
| address     | varchar(30)   | YES  |     | NULL    |       |
| phonenumber | decimal(10,0) | YES  |     | NULL    |       |
+-------------+---------------+------+-----+---------+-------+
7 rows in set (0.09 sec)
```

9. Query to drop a column from an existing table employee:

```
MariaDB [labsheet3]> alter table employee
    -> drop column department;
Query OK, 0 rows affected (0.49 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| empno       | varchar(6)    | NO   | PRI | NULL    |       |
| ename       | varchar(30)   | YES  |     | NULL    |       |
| designation | varchar(40)   | YES  |     | NULL    |       |
| salary      | decimal(8,2)  | YES  |     | NULL    |       |
| address     | varchar(30)   | YES  |     | NULL    |       |
| phonenumber | decimal(10,0) | YES  |     | NULL    |       |
+-------------+---------------+------+-----+---------+-------+
6 rows in set (0.03 sec)
```

10. Query to drop multiple columns from employee:

```
MariaDB [labsheet3]> alter table employee
    -> drop address,
    -> drop phonenumber,
    -> drop designation;
Query OK, 0 rows affected (0.38 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [labsheet3]> describe employee;
+---------+--------------+------+-----+---------+-------+
| Field   | Type         | Null | Key | Default | Extra |
+---------+--------------+------+-----+---------+-------+
| empno   | varchar(6)   | NO   | PRI | NULL    |       |
| ename   | varchar(30)  | YES  |     | NULL    |       |
| salary  | decimal(8,2) | YES  |     | NULL    |       |
+---------+--------------+------+-----+---------+-------+
3 rows in set (0.03 sec)
```

11. Query to rename table emp to employee:

```
MariaDB [labsheet3]> rename table employee to apprentice;
Query OK, 0 rows affected (0.21 sec)

MariaDB [labsheet3]> describe employee;
ERROR 1146 (42S02): Table 'labsheet3.employee' doesn't exist
MariaDB [labsheet3]> describe apprentice;
+---------+--------------+------+-----+---------+-------+
| Field   | Type         | Null | Key | Default | Extra |
+---------+--------------+------+-----+---------+-------+
| empno   | varchar(6)   | NO   | PRI | NULL    |       |
| ename   | varchar(30)  | YES  |     | NULL    |       |
| salary  | decimal(8,2) | YES  |     | NULL    |       |
+---------+--------------+------+-----+---------+-------+
3 rows in set (0.12 sec)
```