

DB Lab Quiz
Haq Nawaz

create database university;

```
MariaDB [(none)]> create database university;  
Query OK, 1 row affected (0.000 sec)
```

A : create table student (studentID int primary key,firstname varchar(25),lastname varchar(25),age int,major varchar(25));

```
MariaDB [university]> create table student (studentID int primary key,firstname varchar(25),lastname varchar(25),age int,major varchar(25));  
Query OK, 0 rows affected (0.035 sec)
```

B : create table courses (courseID int primary key,coursename varchar(25),instructor varchar(25));

```
MariaDB [university]> create table courses (courseID int primary key,coursename varchar(25),instructor varchar(25));  
Query OK, 0 rows affected (0.030 sec)
```

2. Insert Data Students table

1. insert into student values(1,'haq','nawaz',22,'cs');
2. insert into student values(2,'ali','khan',24,'se');
3. insert into student values(3,'noman','khan',20,'ee');
4. insert into student values(4,'hassan','khan',27,'cs');
5. insert into student values(5,'yoyo','khan',27,'cs');

```
MariaDB [university]> insert into student values(1,'haq','nawaz',22,'cs');  
Query OK, 1 row affected (0.010 sec)
```

```
MariaDB [university]> insert into student values(2,'ali','khan',24,'se');  
Query OK, 1 row affected (0.010 sec)
```

```
MariaDB [university]> insert into student values(2,'noman','khan',20,'ee');  
ERROR 1062 (23000): Duplicate entry '2' for key 'PRIMARY'  
MariaDB [university]> insert into student values(3,'noman','khan',20,'ee');  
Query OK, 1 row affected (0.010 sec)
```

```
MariaDB [university]> insert into student values(4,'hassan','khan',27,'cs');  
Query OK, 1 row affected (0.014 sec)
```

```
MariaDB [university]> insert into student values(5,'yoyo','khan',27,'cs');  
Query OK, 1 row affected (0.010 sec)
```

Insert Data Courses table

1. insert into courses values(000,'DB','shoaib');
2. insert into courses values(111,'algo','basit');
3. insert into courses values(222,'data','waqas');

```
MariaDB [university]> insert into courses values(000,'DB','shoaib');
Query OK, 1 row affected (0.014 sec)

MariaDB [university]> insert into courses values(111,'algo','basit');
Query OK, 1 row affected (0.010 sec)

MariaDB [university]> insert into courses values(222,'data','waqas');
Query OK, 1 row affected (0.010 sec)
```

3. SQL Queries

- a. Select all students and their majors.

select firstname,lastname,major from student;

```
MariaDB [university]> select firstname,lastname,major from student;
+-----+-----+-----+
| firstname | lastname | major |
+-----+-----+-----+
| haq       | nawaz   | cs    |
| ali       | khan    | se    |
| noman     | khan    | ee    |
| hassan    | khan    | cs    |
| yoyo      | khan    | cs    |
+-----+-----+-----+
5 rows in set (0.000 sec)
```

- b. Select courses taught by a specific instructor.

select coursenam,instructor from courses;

```
MariaDB [university]> select coursenam,instructor from courses;
+-----+-----+
| coursenam | instructor |
+-----+-----+
| DB        | shoaib    |
| algo      | basit     |
| data      | waqas     |
+-----+-----+
3 rows in set (0.001 sec)
```

c. Count the number of students in each major.

select count(*) from student where major='cs';

```
MariaDB [university]> select count(*) from student where major='cs';
+-----+
| count(*) |
+-----+
|         3 |
+-----+
1 row in set (0.008 sec)
```

4. Update Operations

update student set age='100' where studentID=4;

```
MariaDB [university]> update student set age='100' where studentID=4;
Query OK, 1 row affected (0.011 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [university]> select * from student;
+-----+-----+-----+-----+-----+
| studentID | firstname | lastname | age | major |
+-----+-----+-----+-----+-----+
| 1 | haq | nawaz | 22 | cs |
| 2 | ali | khan | 24 | se |
| 3 | noman | khan | 20 | ee |
| 4 | hassan | khan | 100 | cs |
| 5 | yoyo | khan | 27 | cs |
+-----+-----+-----+-----+-----+
5 rows in set (0.000 sec)
```

5. Delete Operation

delete from courses where courseID=111;

```
MariaDB [university]> delete from courses where courseID=111;  
Query OK, 1 row affected (0.010 sec)
```

```
MariaDB [university]> select * from courses;
```

```
+-----+-----+-----+  
| courseID | coursename | instructor |  
+-----+-----+-----+  
|         0 | DB         | shoaib     |  
|        222 | data       | waqas      |  
+-----+-----+-----+  
2 rows in set (0.000 sec)
```

7. Stored Procedures

create procedure GetStudentDetails(inID int) as select * from student go;

```
MariaDB [university]> create procedure GetStudentDetails(inID int) as select * from student go;  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your  
MariaDB server version [5.5.54] near 'create procedure GetStudentDetails(inID int) as select * from student go'
```

8. Create Users

create user 'labuser' identified by '123';

```
MariaDB [university]> create user 'labuser' identified by '123';  
Query OK, 0 rows affected (0.011 sec)
```