DATABASE SYSTEMS

PRACTICUM 4

By:

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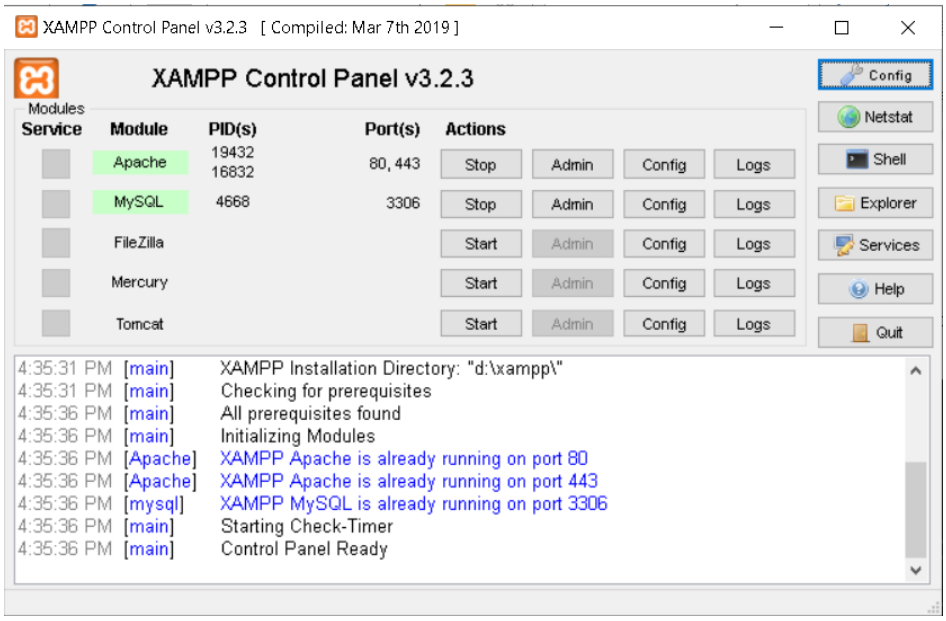
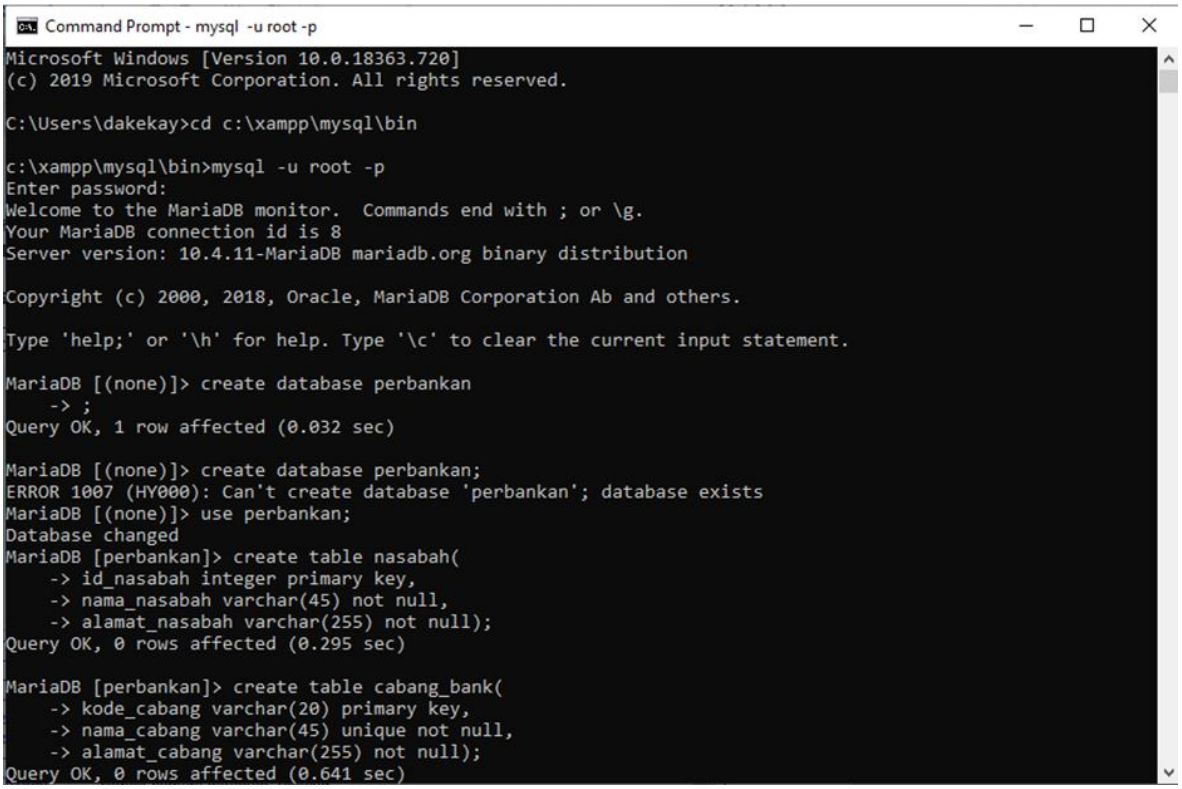
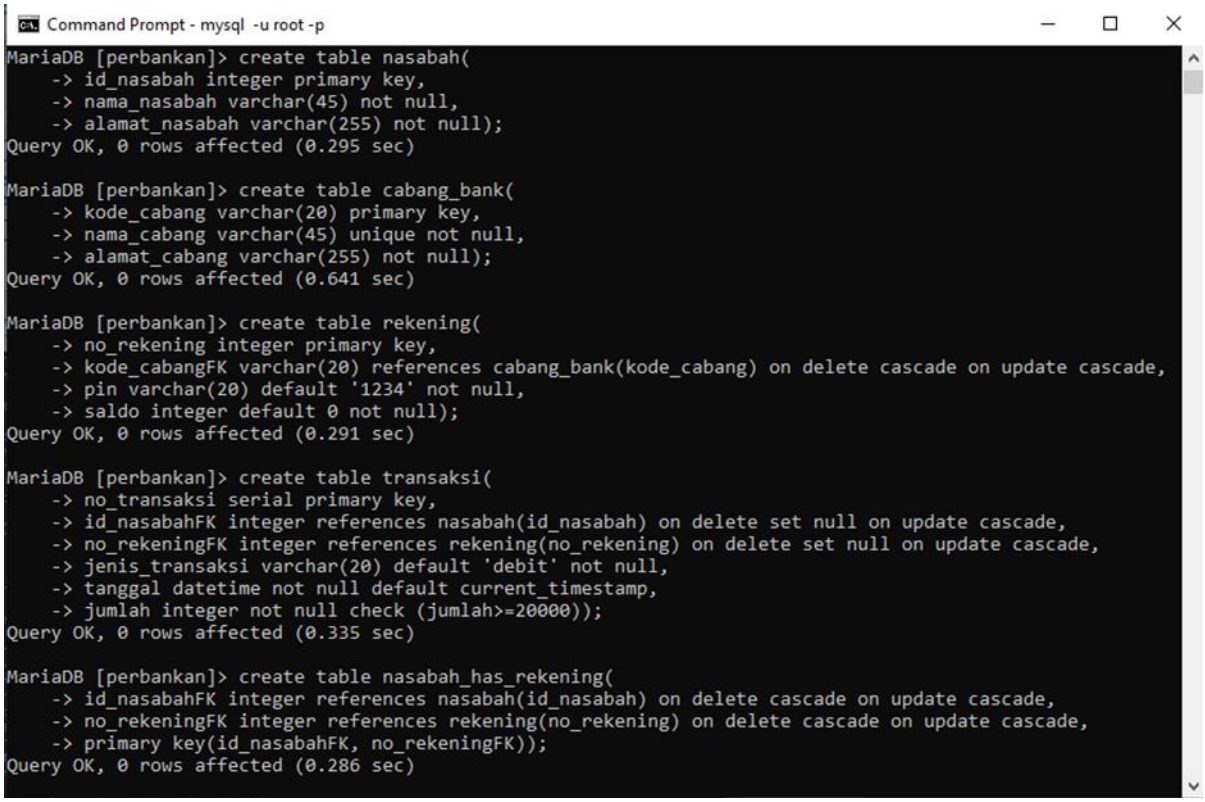
1. **Activity 1**



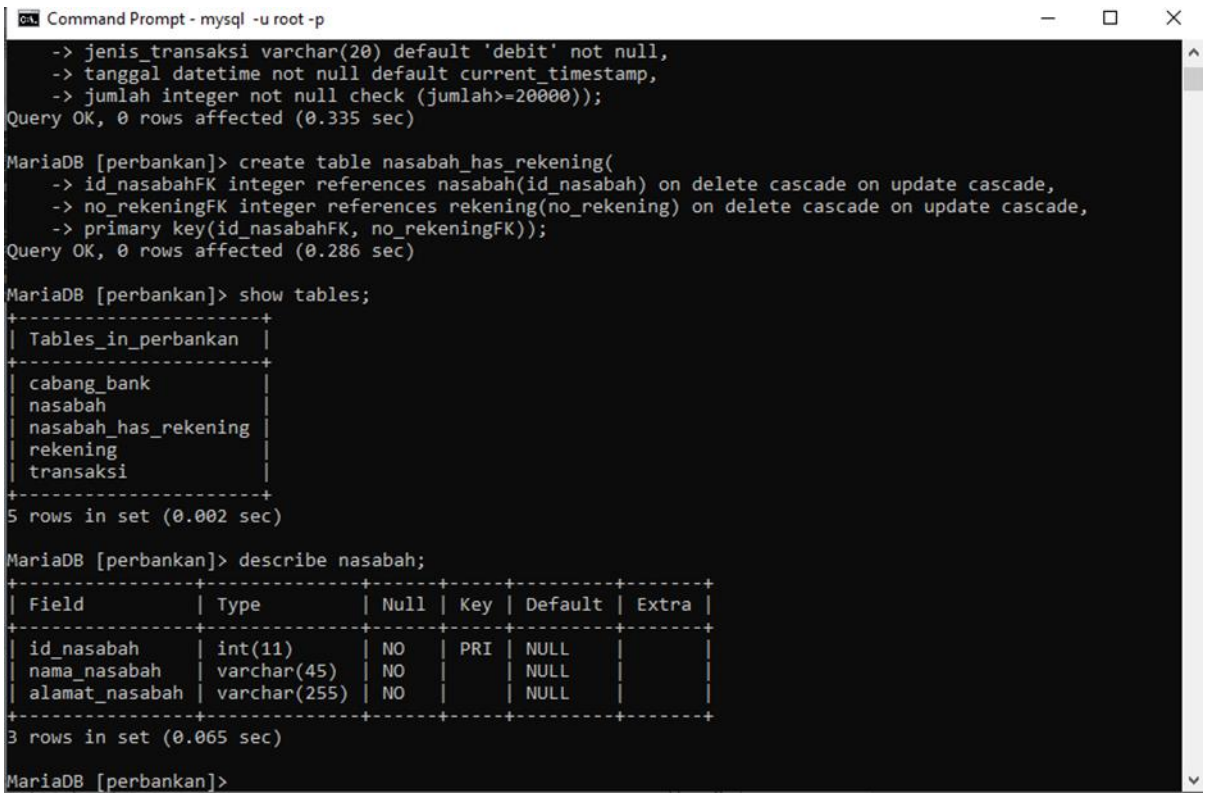
Open XAMPP and then start server Apache and MySQL



Creating new database and create the table



Creating the table



Show the result of all table and show data inside of a table

Assignment

```
MariaDB [university]> create table dosen(
    -> nip integer primary key,
    -> nama varchar(45) not null,
    -> alamat varchar(225) not null);
Query OK, 0 rows affected (0.048 sec)

MariaDB [university]> create table mahasiswa(
    -> nim integer primary key,
    -> nama varchar(45) not null,
    -> alamat varchar(225) not null,
    -> major varchar(20) not null);
Query OK, 0 rows affected (0.039 sec)
```

```
MariaDB [university]> create table mata_kuliah(
    -> kode_mk varchar(20) primary key,
    -> nama_mk varchar(20) not null);
Query OK, 0 rows affected (0.034 sec)

MariaDB [university]> create table ruang_kelas(
    -> kode_ruang varchar(20) primary key,
    -> nama_ruang varchar(45) not null);
Query OK, 0 rows affected (0.038 sec)
```

```
MariaDB [university]> create table dosen_has_mata_kuliah(
    -> nipFK integer references dosen(nip) on delete cascade on update cascade,
    -> kode_mkFK integer references mata_kuliah(kode_mk) on delete cascade on update cascade,
    -> primary key(nipFK, kode_mkFK)
    -> );
Query OK, 0 rows affected (0.046 sec)
```

```
MariaDB [university]> create table dosen_has_mahasiswa(
    -> nipFK integer references dosen(nip) on delete cascade on update cascade,
    -> nimFK integer references mahasiswa(nim) on delete cascade on update cascade,
    -> primary key(nipFK, nimFK));
Query OK, 0 rows affected (0.048 sec)

MariaDB [university]> create table mahasiswa_has_mata_kuliah(
    -> nimFK integer references mahasiswa(nim) on delete cascade on update cascade,
    -> kode_mkFK varchar(20) references mata_kuliah(kode_mk) on delete cascade on update cascade,
    -> primary key(nimFK, kode_mkFK));
Query OK, 0 rows affected (0.049 sec)

MariaDB [university]> create table mata_kuliah_has_ruang_kelas(
    -> kode_mkFK varchar(20) references mata_kuliah(kode_mk) on delete cascade on update cascade,
    -> kode_ruangFK varchar(20) references ruang_kelas(kode_ruang) on delete cascade on update cascade,
    -> primary key(kode_mkFK, kode_ruangFK));
Query OK, 0 rows affected (0.047 sec)
```

Creating the table

```
MariaDB [university]> show tables;
+-----------------------------+
| Tables_in_university        |
+-----------------------------+
| dosen                       |
| dosen_has_mahasiswa         |
| dosen_has_mata_kuliah       |
| mahasiswa                   |
| mahasiswa_has_mata_kuliah   |
| mata_kuliah                 |
| mata_kuliah_has_ruang_kelas |
| ruang_kelas                 |
+-----------------------------+
8 rows in set (0.001 sec)

MariaDB [university]> describe dosen;
+--------+--------------+------+-----+---------+-------+
| Field  | Type         | Null | Key | Default | Extra |
+--------+--------------+------+-----+---------+-------+
| nip    | int(11)      | NO   | PRI | NULL    |       |
| nama   | varchar(45)  | NO   |     | NULL    |       |
| alamat | varchar(225) | NO   |     | NULL    |       |
+--------+--------------+------+-----+---------+-------+
3 rows in set (0.036 sec)

MariaDB [university]> describe dosen_has_mahasiswa
    -> ;
+-------+---------+------+-----+---------+-------+
| Field | Type    | Null | Key | Default | Extra |
+-------+---------+------+-----+---------+-------+
| nipFK | int(11) | NO   | PRI | NULL    |       |
| nimFK | int(11) | NO   | PRI | NULL    |       |
+-------+---------+------+-----+---------+-------+
2 rows in set (0.037 sec)

MariaDB [university]> describe mahasiswa;
+--------+--------------+------+-----+---------+-------+
| Field  | Type         | Null | Key | Default | Extra |
+--------+--------------+------+-----+---------+-------+
| nim    | int(11)      | NO   | PRI | NULL    |       |
| nama   | varchar(45)  | NO   |     | NULL    |       |
| alamat | varchar(225) | NO   |     | NULL    |       |
| major  | varchar(20)  | NO   |     | NULL    |       |
+--------+--------------+------+-----+---------+-------+
```

Showing the tables and data inside it