

# ASSIGNMENT 1

## THE CODE

```
Select XAMPP for Windows - mysql -u root -p

Setting environment for using XAMPP for Windows.
Dell@NADHIFAH20 c:\xampp
# cd mysql\bin

Dell@NADHIFAH20 c:\xampp\mysql\bin
# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 47
Server version: 10.4.11-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| perbankan |
| performance_schema |
| phpmyadmin |
| test |
+-----+
6 rows in set (0.002 sec)

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah(
  -> id_nasabah INTEGER PRIMARY KEY,
  -> nama_nasabah VARCHAR(45) NOT NULL,
  -> alamat_nasabah VARCHAR(255) NOT NULL);
ERROR 1050 (42S01): Table 'nasabah' already exists
MariaDB [perbankan]> CREATE TABLE cabang_bank(
  -> kode_cabang VARCHAR(20) PRIMARY KEY,
  -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
  -> alamat_cabang VARCHAR(255) NOT NULL);
ERROR 1050 (42S01): Table 'cabang_bank' already exists
MariaDB [perbankan]> CREATE TABLE rekening(
  -> no_rekening INTEGER PRIMARY KEY,
  -> kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang)

Select XAMPP for Windows - mysql -u root -p
6 rows in set (0.002 sec)

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah(
  -> id_nasabah INTEGER PRIMARY KEY,
  -> nama_nasabah VARCHAR(45) NOT NULL,
  -> alamat_nasabah VARCHAR(255) NOT NULL);
ERROR 1050 (42S01): Table 'nasabah' already exists
MariaDB [perbankan]> CREATE TABLE cabang_bank(
  -> kode_cabang VARCHAR(20) PRIMARY KEY,
  -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
  -> alamat_cabang VARCHAR(255) NOT NULL);
ERROR 1050 (42S01): Table 'cabang_bank' already exists
MariaDB [perbankan]> CREATE TABLE rekening(
  -> no_rekening INTEGER PRIMARY KEY,
  -> kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
  -> saldo INTEGER DEFAULT 0 NOT NULL);
ERROR 1050 (42S01): Table 'rekening' already exists
MariaDB [perbankan]> CREATE TABLE transaksi(
  -> no_transaksi SERIAL PRIMARY KEY,
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
  -> tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
  -> jumlah INTEGER NOT NULL CHECK(jumlah>=20000));
ERROR 1050 (42S01): Table 'transaksi' already exists
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> PRIMARY KEY(id_nasabahFK, no_rekeningFK));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'INETEGER RE
FERENCES nasabah(id_nasabah)
ON DELETE CASCADE ON UPDATE CASCADE,
no_ ' at line 2
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,;)
```

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XAMPP for Windows - mysql -u root -p
no. ' at line 2
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near ')' at line 3
MariaDB [perbankan]> CREATE TABLE transaksi(
  -> no_transaksi SERIAL PRIMARY KEY,
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE SET NULL ON UPDATE CASCADE,
  -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
  -> ON DELETE SET NULL ON UPDATE CASCADE,
  -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
  -> tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
  -> jumlah INTEGER NOT NULL CHECK(jumlah>=20000));
ERROR 1050 (42S01): Table 'transaksi' already exists
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near ')' at line 3
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
  -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> PRIMARY KEY(id_nasabahFK, no_rekeningFK));
Query OK, 0 rows affected (3.532 sec)

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Select XAMPP for Windows - mysql -u root -p
MariaDB [perbankan]> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+-----+
5 rows in set (0.001 sec)

MariaDB [perbankan]> describe nasabah;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_nasabah | int(11) | NO | PRI | NULL | |
| nama_nasabah | varchar(45) | NO | | NULL | |
| alamat_nasabah | varchar(255) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.465 sec)

MariaDB [perbankan]> describe cabang_bank;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_cabang | varchar(45) | NO | PRI | NULL | |
| nama_cabang | varchar(45) | NO | UNI | NULL | |
| alamat_cabang | varchar(255) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.054 sec)

MariaDB [perbankan]> describe rekening;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| no_rekening | int(11) | NO | PRI | NULL | |
| kode_cabangFK | varchar(20) | YES | | NULL | |
| pin | varchar(20) | NO | | 1234 | |
| saldo | int(11) | NO | | 0 | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.216 sec)

MariaDB [perbankan]> describe transaksi;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| no_transaksi | bigint(20) unsigned | NO | PRI | NULL | auto_increment |
| id_nasabahFK | int(11) | YES | | NULL | |
| no_rekeningFK | int(11) | YES | | NULL | |
| jenis_transaksi | varchar(20) | NO | | debit | |
| tanggal | datetime | NO | | current_timestamp() | |
| jumlah | int(11) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.161 sec)

MariaDB [perbankan]> describe nasabah_has_rekening;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_nasabahFK | int(11) | NO | PRI | NULL | |
| no_rekeningFK | int(11) | NO | PRI | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.023 sec)

```

## ASSIGNMENT 2

```

XAMPP for Windows - mysql -u root -p

Setting environment for using XAMPP for Windows.
Dell@NADHIFA20 c:\xampp
# cd mysql\bin

Dell@NADHIFA20 c:\xampp\mysql\bin
# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 61
Server version: 10.4.11-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database kuliah;
Query OK, 1 row affected (0.069 sec)

MariaDB [(none)]> use kuliah;
Database changed
MariaDB [kuliah]> CREATE TABLE dosen(
  -> nip VARCHAR(20) PRIMARY KEY,
  -> nama_dosen VARCHAR(45) NOT NULL,
  -> alamat_dosen VARCHAR(45) NOT NULL);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'VARCHAR(45) NOT NULL)' at line 4
MariaDB [kuliah]> CREATE TABLE dosen(
  -> nip VARCHAR(20) PRIMARY KEY,
  -> nama_dosen VARCHAR(45) NOT NULL,
  -> alamat_dosen VARCHAR(45) NOT NULL);
Query OK, 0 rows affected (0.476 sec)

MariaDB [kuliah]> CREATE TABLE mahasiswa(
  -> nim VARCHAR(20) PRIMARY KEY,
  -> dosen_nipFK VARCHAR(20) REFERENCES dosen(dosen_nip)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> nama_mahasiswa VARCHAR(45) NOT NULL,
  -> alamat_mahasiswa VARCHAR(45) NOT NULL);
Query OK, 0 rows affected (1.327 sec)

MariaDB [kuliah]> CREATE TABLE matkul(
  -> kode_matkul VARCHAR(20) PRIMARY KEY,
  -> nama_matkul VARCHAR(45) NOT NULL,
  -> alamat_matkul VARCHAR(45) NOT NULL);
Query OK, 0 rows affected (1.327 sec)

MariaDB [kuliah]> CREATE TABLE matkul(
  -> kode_matkul VARCHAR(20) PRIMARY KEY,
  -> nama_matkul VARCHAR(45) NOT NULL,
  -> deskripsi_matkul VARCHAR(255) NOT NULL);
Query OK, 0 rows affected (2.272 sec)

MariaDB [kuliah]> CREATE TABLE ruang(
  -> kode_ruang VARCHAR(20) PRIMARY KEY);
Query OK, 0 rows affected (0.834 sec)

MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
  -> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
  -> ON DELETE CASCADE ON UPDATE CASCADE;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 3
MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
  -> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> ruangFK VARCHAR(20) REFERENCES ruang(kode_ruang)
  -> ON DELETE CASCADE ON UPDATE CASCADE;
  -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near ')' at line 6
MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
  -> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> ruangFK VARCHAR(20) REFERENCES ruang(kode_ruang)
  -> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.483 sec)

MariaDB [kuliah]> CREATE TABLE mahasiswa_has_malkul(
  -> nimFK VARCHAR(20) REFERENCES mahasiswa(nim)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
  -> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.387 sec)

MariaDB [kuliah]> CREATE TABLE dosen_has_matkul(
  -> nipFK VARCHAR(20) REFERENCES dosen(nip)

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XAMPP for Windows - mysql -u root -p
-> kode_ruang VARCHAR(20) PRIMARY KEY);
Query OK, 0 rows affected (0.834 sec)

MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
-> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 3

MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
-> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> ruangFK VARCHAR(20) REFERENCES ruang(kode_ruang)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '))' at line 6

MariaDB [kuliah]> CREATE TABLE matkul_has_ruang(
-> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> ruangFK VARCHAR(20) REFERENCES ruang(kode_ruang)
-> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.483 sec)

MariaDB [kuliah]> CREATE TABLE mahasiswa_has_malkul(
-> nimFK VARCHAR(20) REFERENCES mahasiswa(nim)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.387 sec)

MariaDB [kuliah]> CREATE TABLE dosen_has_matkul(
-> nipFK VARCHAR(20) REFERENCES dosen(nip)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> matkulFK VARRCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'VARRCHAR(20) REFERENCES matkul(kode_matkul) ON DELETE CASCADE ON UPDATE CASCADE)' at line 4

MariaDB [kuliah]> CREATE TABLE dosen_has_matkul(
-> nipFK VARCHAR(20) REFERENCES dosen(nip)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> matkulFK VARCHAR(20) REFERENCES matkul(kode_matkul)
-> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.374 sec)

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XAMPP for Windows - mysql -u root -p
-> ON DELETE CASCADE ON UPDATE CASCADE);
Query OK, 0 rows affected (0.374 sec)

MariaDB [kuliah]> show tables;
+-----+
| Tables in kuliah |
+-----+
| dosen            |
| dosen_has_matkul |
| mahasiswa        |
| mahasiswa_has_malkul |
| matkul           |
| matkul_has_ruang |
| ruang            |
+-----+
7 rows in set (0.031 sec)

MariaDB [kuliah]> describe dosen;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| nip        | varchar(20) | NO   | PRI | NULL    |       |
| nama_dosen | varchar(45) | NO   |     | NULL    |       |
| alamat_dosen | varchar(45) | NO   |     | NULL    |       |
+-----+
3 rows in set (0.202 sec)

MariaDB [kuliah]> describe mahasiswa;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| nim        | varchar(20) | NO   | PRI | NULL    |       |
| dosen_nipFK | varchar(20) | YES  |     | NULL    |       |
| nama_mahasiswa | varchar(45) | NO   |     | NULL    |       |
| alamat_mahasiswa | varchar(45) | NO   |     | NULL    |       |
+-----+
4 rows in set (0.102 sec)

MariaDB [kuliah]> describe matkul;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| kode_matkul | varchar(20) | NO   | PRI | NULL    |       |
| nama_matkul | varchar(45) | NO   |     | NULL    |       |
+-----+

```

```
XAMPP for Windows - mysql -u root -p
MariaDB [kuliah]> describe ruang;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_ruang | varchar(20) | NO | PRI | NULL | |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.102 sec)

MariaDB [kuliah]> describe dosen_has_matkul;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nipFK | varchar(20) | YES | | NULL | |
| matkulFK | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.054 sec)

MariaDB [kuliah]> describe matkul_has_ruang;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| matkulFK | varchar(20) | YES | | NULL | |
| ruangFK | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.153 sec)

MariaDB [kuliah]> describe mahasiswa_has_matkul;
ERROR 1146 (42502): Table 'kuliah.mahasiswa_has_matkul' doesn't exist
MariaDB [kuliah]> describe mahasiswa_has_malkul;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nimFK | varchar(20) | YES | | NULL | |
| matkulFK | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.066 sec)

MariaDB [kuliah]>
```