Database Job Sheet Introduction MySQL and DDL

From:

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Practicum

1. Connect MySQL

```
→ zharsuke@box  ~  sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 32
Server version: 10.11.4-MariaDB-1 Debian 12

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

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

2. Create database

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

MariaDB [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| Company_Database   |
| college_assignment1 |
| db_polinema        |
| information_schema |
| mid_exam           |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
8 rows in set (0.000 sec)

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

3. Create table prodi

```
MariaDB [db_polinema]> create table prodi (kode_prodi char(6) primary key, nama_prodi char(30));
Query OK, 0 rows affected (0.011 sec)

MariaDB [db_polinema]>
```

4. Create table mahasiswa

```
MariaDB [db_polinema]> create table mahasiswa (nim int(8) primary key, nama_mhs char(50), jenis_kelamin enum('L','P') default 'L', alamat varchar(50), kota v
archar(20) default 'malang', asal_sma char(30), no_hp varchar(12), umur integer, kode_prodi char(6), foreign key fk0 (kode_prodi) references prodi(kode_prodi
));
Query OK, 0 rows affected (0.077 sec)

MariaDB [db_polinema]>
```

5. Create table mata_kuliah

```
MariaDB [db_polinema]> create table mata_kuliah (mk_id char(10) primary key, nama_mk char(50), jumlah_jam float(4,2), sks integer);
Query OK, 0 rows affected (0.036 sec)

MariaDB [db_polinema]>
```

6. Create table ruang

```
MariaDB [db_polinema]> create table ruang (ruang_id char(3) primary key, nama_ruang char(20), kapasitas integer);
Query OK, 0 rows affected (0.010 sec)

MariaDB [db_polinema]>
```

7. Create table dosen

```
MariaDB [db_polinema]> create table dosen (nidn integer(20) primary key, nama_dosen char(50), status enum('PNS','KONTRAK') default 'PNS', jenis_kelamin enum
('L','P') default 'L', no_hp varchar(15));
Query OK, 0 rows affected (0.011 sec)

MariaDB [db_polinema]>
```
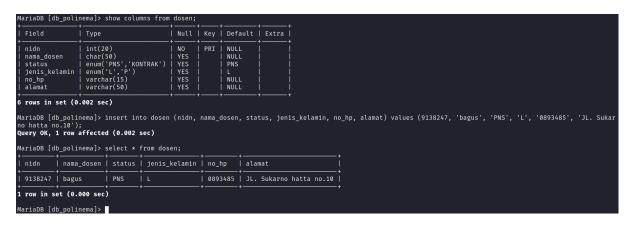
8. Add agama column at mahasiswa table

```
MariaDB [db_polinema]> show columns from mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| asal_sma      | char(30)      | YES  |     | NULL    |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
9 rows in set (0.003 sec)

MariaDB [db_polinema]> alter table mahasiswa add agama varchar(10);
Query OK, 0 rows affected (0.014 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [db_polinema]> show columns from mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| asal_sma      | char(30)      | YES  |     | NULL    |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
| agama         | varchar(10)   | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
10 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

9. Add alamat column at dosen table.

```
MariaDB [db_polinema]> show columns from dosen;
+---------------+-----------------------+------+-----+---------+-------+
| Field         | Type                  | Null | Key | Default | Extra |
+---------------+-----------------------+------+-----+---------+-------+
| nidn          | int(20)               | NO   | PRI | NULL    |       |
| nama_dosen    | char(50)              | YES  |     | NULL    |       |
| status        | enum('PNS','KONTRAK') | YES  |     | PNS     |       |
| jenis_kelamin | enum('L','P')         | YES  |     | L       |       |
| no_hp         | varchar(15)           | YES  |     | NULL    |       |
+---------------+-----------------------+------+-----+---------+-------+
5 rows in set (0.003 sec)

MariaDB [db_polinema]> alter table dosen add alamat varchar(50);
Query OK, 0 rows affected (0.032 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [db_polinema]> show columns from dosen;
+---------------+-----------------------+------+-----+---------+-------+
| Field         | Type                  | Null | Key | Default | Extra |
+---------------+-----------------------+------+-----+---------+-------+
| nidn          | int(20)               | NO   | PRI | NULL    |       |
| nama_dosen    | char(50)              | YES  |     | NULL    |       |
| status        | enum('PNS','KONTRAK') | YES  |     | PNS     |       |
| jenis_kelamin | enum('L','P')         | YES  |     | L       |       |
| no_hp         | varchar(15)           | YES  |     | NULL    |       |
| alamat        | varchar(50)           | YES  |     | NULL    |       |
+---------------+-----------------------+------+-----+---------+-------+
6 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

10. Insert data dosen

```
MariaDB [db_polinema]> show columns from dosen;
+---------------+-----------------------+------+-----+---------+-------+
| Field         | Type                  | Null | Key | Default | Extra |
+---------------+-----------------------+------+-----+---------+-------+
| nidn          | int(20)               | NO   | PRI | NULL    |       |
| nama_dosen    | char(50)              | YES  |     | NULL    |       |
| status        | enum('PNS','KONTRAK') | YES  |     | PNS     |       |
| jenis_kelamin | enum('L','P')         | YES  |     | L       |       |
| no_hp         | varchar(15)           | YES  |     | NULL    |       |
| alamat        | varchar(50)           | YES  |     | NULL    |       |
+---------------+-----------------------+------+-----+---------+-------+
6 rows in set (0.002 sec)

MariaDB [db_polinema]> insert into dosen (nidn, nama_dosen, status, jenis_kelamin, no_hp, alamat) values (9138247, 'bagus', 'PNS', 'L', '0893485', 'JL. Sukar
no hatta no.10');
Query OK, 1 row affected (0.002 sec)

MariaDB [db_polinema]> select * from dosen;
+---------+------------+--------+---------------+---------+-----------------------+
| nidn    | nama_dosen | status | jenis_kelamin | no_hp   | alamat                |
+---------+------------+--------+---------------+---------+-----------------------+
| 9138247 | bagus      | PNS    | L             | 0893485 | JL. Sukarno hatta no.10 |
+---------+------------+--------+---------------+---------+-----------------------+
1 row in set (0.000 sec)

MariaDB [db_polinema]>
```

Insert data mahasiswa

```
MariaDB [db_polinema]> show columns from mahasiswa;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| nim           | int(8)       | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)     | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P')| YES  |     | L       |       |
| alamat        | varchar(50)  | YES  |     | NULL    |       |
| kota          | varchar(20)  | YES  |     | malang  |       |
| asal_sma      | char(30)     | YES  |     | NULL    |       |
| no_hp         | varchar(12)  | YES  |     | NULL    |       |
| umur          | int(11)      | YES  |     | NULL    |       |
| kode_prodi    | char(6)      | YES  | MUL | NULL    |       |
| agama         | varchar(10)  | YES  |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
10 rows in set (0.001 sec)

MariaDB [db_polinema]> insert into mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, asal_sma, no_hp, umur, kode_prodi, agama) values (2249238, 'azhar',
 'L', 'JL. Candi Agung IV', 'malang', 'SMKN 4 Malang', '089543', 20, 'TI', 'Islam');
Query OK, 1 row affected (0.002 sec)

MariaDB [db_polinema]> select * from mahasiswa;
+---------+----------+---------------+--------------------+--------+---------------+--------+------+------------+-------+
| nim     | nama_mhs | jenis_kelamin | alamat             | kota   | asal_sma      | no_hp  | umur | kode_prodi | agama |
+---------+----------+---------------+--------------------+--------+---------------+--------+------+------------+-------+
| 2249238 | azhar    | L             | JL. Candi Agung IV | malang | SMKN 4 Malang | 089543 |   20 | TI         | Islam |
+---------+----------+---------------+--------------------+--------+---------------+--------+------+------------+-------+
1 row in set (0.000 sec)

MariaDB [db_polinema]>
```

Insert data mata_kuliah

```
MariaDB [db_polinema]> show columns from mata_kuliah;
+------------+------------+------+-----+---------+-------+
| Field      | Type       | Null | Key | Default | Extra |
+------------+------------+------+-----+---------+-------+
| mk_id      | char(10)   | NO   | PRI | NULL    |       |
| nama_mk    | char(50)   | YES  |     | NULL    |       |
| jumlah_jam | float(4,2) | YES  |     | NULL    |       |
| sks        | int(11)    | YES  |     | NULL    |       |
+------------+------------+------+-----+---------+-------+
4 rows in set (0.001 sec)

MariaDB [db_polinema]> insert into mata_kuliah (mk_id, nama_mk, jumlah_jam, sks) values ('DBA-01', 'Database Advance', 6, 6);
Query OK, 1 row affected (0.002 sec)

MariaDB [db_polinema]> select * from mata_kuliah;
+--------+------------------+------------+-----+
| mk_id  | nama_mk          | jumlah_jam | sks |
+--------+------------------+------------+-----+
| DBA-01 | Database Advance |       6.00 |   6 |
+--------+------------------+------------+-----+
1 row in set (0.000 sec)

MariaDB [db_polinema]>
```

Insert data prodi

```
MariaDB [db_polinema]> show columns from prodi;
+------------+----------+------+-----+---------+-------+
| Field      | Type     | Null | Key | Default | Extra |
+------------+----------+------+-----+---------+-------+
| kode_prodi | char(6)  | NO   | PRI | NULL    |       |
| nama_prodi | char(30) | YES  |     | NULL    |       |
+------------+----------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [db_polinema]> insert into prodi (kode_prodi, nama_prodi) values ('TI', 'Teknik Informatika');
Query OK, 1 row affected (0.002 sec)

MariaDB [db_polinema]> select * from prodi;
+------------+--------------------+
| kode_prodi | nama_prodi         |
+------------+--------------------+
| TI         | Teknik Informatika |
+------------+--------------------+
1 row in set (0.000 sec)

MariaDB [db_polinema]>
```

Insert data ruang

```
MariaDB [db_polinema]> show columns from ruang;
+-------------+----------+------+-----+---------+-------+
| Field       | Type     | Null | Key | Default | Extra |
+-------------+----------+------+-----+---------+-------+
| ruang_id    | char(3)  | NO   | PRI | NULL    |       |
| nama_ruang  | char(20) | YES  |     | NULL    |       |
| kapasitas   | int(11)  | YES  |     | NULL    |       |
+-------------+----------+------+-----+---------+-------+
3 rows in set (0.001 sec)

MariaDB [db_polinema]> insert into ruang (ruang_id, nama_ruang, kapasitas) values ('01', 'LSI3', 30);
Query OK, 1 row affected (0.001 sec)

MariaDB [db_polinema]> select * from ruang;
+----------+------------+-----------+
| ruang_id | nama_ruang | kapasitas |
+----------+------------+-----------+
| 01       | LSI3       |        30 |
+----------+------------+-----------+
1 row in set (0.000 sec)

MariaDB [db_polinema]>
```

11. Show table

```
MariaDB [db_polinema]> show tables;
+---------------------+
| Tables_in_db_polinema |
+---------------------+
| dosen               |
| mahasiswa           |
| mata_kuliah         |
| prodi               |
| ruang               |
+---------------------+
5 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

12. Show column mahasiswa

```
MariaDB [db_polinema]> show columns from mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| asal_sma      | char(30)      | YES  |     | NULL    |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
| agama         | varchar(10)   | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
10 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

13. Describe mahasiswa

```
MariaDB [db_polinema]> describe mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| asal_sma      | char(30)      | YES  |     | NULL    |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
| agama         | varchar(10)   | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
10 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

14. Drop column asal_sma at mahasiswa table

```
MariaDB [db_polinema]> describe mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| asal_sma      | char(30)      | YES  |     | NULL    |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
| agama         | varchar(10)   | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
10 rows in set (0.001 sec)

MariaDB [db_polinema]> alter table mahasiswa drop column asal_sma;
Query OK, 0 rows affected (0.028 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [db_polinema]> describe mahasiswa;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| nim           | int(8)        | NO   | PRI | NULL    |       |
| nama_mhs      | char(50)      | YES  |     | NULL    |       |
| jenis_kelamin | enum('L','P') | YES  |     | L       |       |
| alamat        | varchar(50)   | YES  |     | NULL    |       |
| kota          | varchar(20)   | YES  |     | malang  |       |
| no_hp         | varchar(12)   | YES  |     | NULL    |       |
| umur          | int(11)       | YES  |     | NULL    |       |
| kode_prodi    | char(6)       | YES  | MUL | NULL    |       |
| agama         | varchar(10)   | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
9 rows in set (0.001 sec)

MariaDB [db_polinema]>
```

Assignment

1. create database

```
MariaDB [db_polinema]> create database academic;
Query OK, 1 row affected (0.001 sec)

MariaDB [db_polinema]> use academic;
Database changed
```

Create table mahasiswa

```
MariaDB [academic]> create table mahasiswa (no_mhs int(8) primary key, nama_mhs char(50));
Query OK, 0 rows affected (0.012 sec)

MariaDB [academic]> show columns from mahasiswa;
+-----------+----------+------+-----+---------+-------+
| Field     | Type     | Null | Key | Default | Extra |
+-----------+----------+------+-----+---------+-------+
| no_mhs    | int(8)   | NO   | PRI | NULL    |       |
| nama_mhs  | char(50) | YES  |     | NULL    |       |
+-----------+----------+------+-----+---------+-------+
2 rows in set (0.000 sec)

MariaDB [academic]>
```

Create table mata_kuliah

```
MariaDB [academic]> create table mata_kuliah (kd_mk char(10) primary key, nama_mk char(50));
Query OK, 0 rows affected (0.012 sec)

MariaDB [academic]> show columns mata_kuliah;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds
mata_kuliah' at line 1
MariaDB [academic]> show columns from mata_kuliah;
+---------+----------+------+-----+---------+-------+
| Field   | Type     | Null | Key | Default | Extra |
+---------+----------+------+-----+---------+-------+
| kd_mk   | char(10) | NO   | PRI | NULL    |       |
| nama_mk | char(50) | YES  |     | NULL    |       |
+---------+----------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [academic]>
```

Create table nilai

```
MariaDB [academic]> create table nilai (no_mhs int(8), kode_mk char(10), foreign key (no_mhs) references mahasiswa(no_mhs), foreign key (kode_mk) references
mata_kuliah(kd_mk));
Query OK, 0 rows affected (0.016 sec)

MariaDB [academic]> show columns from nilai;
+---------+----------+------+-----+---------+-------+
| Field   | Type     | Null | Key | Default | Extra |
+---------+----------+------+-----+---------+-------+
| no_mhs  | int(8)   | YES  | MUL | NULL    |       |
| kode_mk | char(10) | YES  | MUL | NULL    |       |
+---------+----------+------+-----+---------+-------+
2 rows in set (0.003 sec)

MariaDB [academic]>
```

Add jurusan column at mahasiswa table

```
MariaDB [academic]> alter table mahasiswa add jurusan char(20);
Query OK, 0 rows affected (0.017 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [academic]> desribe mahasiswa;
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 '
desribe mahasiswa' at line 1
MariaDB [academic]> describe mahasiswa;
+-----------+----------+------+-----+---------+-------+
| Field     | Type     | Null | Key | Default | Extra |
+-----------+----------+------+-----+---------+-------+
| no_mhs    | int(8)   | NO   | PRI | NULL    |       |
| nama_mhs  | char(50) | YES  |     | NULL    |       |
| jurusan   | char(20) | YES  |     | NULL    |       |
+-----------+----------+------+-----+---------+-------+
3 rows in set (0.001 sec)

MariaDB [academic]>
```

Create table dosen

```
MariaDB [academic]> create table dosen (kode_dosen char(10) primary key, nama_dosen char(50));
Query OK, 0 rows affected (0.012 sec)

MariaDB [academic]> describe dosen;
+------------+----------+------+-----+---------+-------+
| Field      | Type     | Null | Key | Default | Extra |
+------------+----------+------+-----+---------+-------+
| kode_dosen | char(10) | NO   | PRI | NULL    |       |
| nama_dosen | char(50) | YES  |     | NULL    |       |
+------------+----------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [academic]>
```

Add kode_dosen at mata_kuliah table

```
MariaDB [academic]> alter table mata_kuliah add column kode_dosen char(10), add foreign key (kode_dosen) references dosen(kode_dosen);
Query OK, 0 rows affected (0.052 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [academic]> describe mata_kuliah;
+------------+----------+------+-----+---------+-------+
| Field      | Type     | Null | Key | Default | Extra |
+------------+----------+------+-----+---------+-------+
| kd_mk      | char(10) | NO   | PRI | NULL    |       |
| nama_mk    | char(50) | YES  |     | NULL    |       |
| kode_dosen | char(10) | YES  | MUL | NULL    |       |
+------------+----------+------+-----+---------+-------+
3 rows in set (0.003 sec)

MariaDB [academic]>
```

Add nilai column at nilai table

```
MariaDB [academic]> alter table nilai add column nilai int(3);
Query OK, 0 rows affected (0.026 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [academic]> desc nilai;
+---------+----------+------+-----+---------+-------+
| Field   | Type     | Null | Key | Default | Extra |
+---------+----------+------+-----+---------+-------+
| no_mhs  | int(8)   | YES  | MUL | NULL    |       |
| kode_mk | char(10) | YES  | MUL | NULL    |       |
| nilai   | int(3)   | YES  |     | NULL    |       |
+---------+----------+------+-----+---------+-------+
3 rows in set (0.004 sec)

MariaDB [academic]>
```

display data dosen

```
MariaDB [academic]> select * from dosen;
+------------+------------+
| kode_dosen | nama_dosen |
+------------+------------+
| d-001      | bagus      |
| d-002      | bagas      |
+------------+------------+
2 rows in set (0.000 sec)

MariaDB [academic]>
```

display data mahasiswa

```
MariaDB [academic]> select * from mahasiswa;
+---------+----------+---------------------+
| no_mhs  | nama_mhs | jurusan             |
+---------+----------+---------------------+
| 2241981 | rizqi    | Teknologi Informasi |
| 2241982 | azhar    | Teknologi Informasi |
+---------+----------+---------------------+
2 rows in set (0.000 sec)

MariaDB [academic]>
```

display data mata kuliah

```
MariaDB [academic]> select * from mata_kuliah;
+--------+------------------+-------------+
| kd_mk  | nama_mk          | kode_dosen  |
+--------+------------------+-------------+
| mk-001 | database advance | d-001       |
| mk-002 | matematika 3     | d-001       |
+--------+------------------+-------------+
2 rows in set (0.000 sec)

MariaDB [academic]>
```

display data nilai

```
MariaDB [academic]> select * from nilai;
+---------+---------+-------+
| no_mhs  | kode_mk | nilai |
+---------+---------+-------+
| 2241981 | mk-001  |    99 |
| 2241981 | mk-002  |    98 |
+---------+---------+-------+
2 rows in set (0.001 sec)

MariaDB [academic]>
```

2. Create database

```
MariaDB [academic]> create database employee;
Query OK, 1 row affected (0.001 sec)

MariaDB [academic]> use employee;
Database changed
MariaDB [employee]> show tables;
Empty set (0.000 sec)

MariaDB [employee]>
```

Create table employee

```
MariaDB [employee]> create table employee (no_pegawai int(4) primary key, nama_pegawai char(50));
Query OK, 0 rows affected (0.013 sec)

MariaDB [employee]> desc employee;
+--------------+----------+------+-----+---------+-------+
| Field        | Type     | Null | Key | Default | Extra |
+--------------+----------+------+-----+---------+-------+
| no_pegawai   | int(4)   | NO   | PRI | NULL    |       |
| nama_pegawai | char(50) | YES  |     | NULL    |       |
+--------------+----------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [employee]>
```

create table golongan

```
MariaDB [employee]> create table golongan (golongan char(1) primary key);
Query OK, 0 rows affected (0.011 sec)

MariaDB [employee]> desc golongan;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| golongan | char(1) | NO   | PRI | NULL    |       |
+----------+---------+------+-----+---------+-------+
1 row in set (0.001 sec)

MariaDB [employee]>
```

create table proyek

```
MariaDB [employee]> create table proyek (no_proyek int(5) primary key);
Query OK, 0 rows affected (0.010 sec)

MariaDB [employee]> desc proyek;
+-----------+---------+------+-----+---------+-------+
| Field     | Type    | Null | Key | Default | Extra |
+-----------+---------+------+-----+---------+-------+
| no_proyek | int(5)  | NO   | PRI | NULL    |       |
+-----------+---------+------+-----+---------+-------+
1 row in set (0.001 sec)

MariaDB [employee]>
```

create table proyek_pegawai

```
MariaDB [employee]> create table proyek_pegawai (no_proyek int(5), foreign key (no_proyek) references proyek(no_proyek));
Query OK, 0 rows affected (0.014 sec)

MariaDB [employee]> desc proyek_pegawai;
+-----------+---------+------+-----+---------+-------+
| Field     | Type    | Null | Key | Default | Extra |
+-----------+---------+------+-----+---------+-------+
| no_proyek | int(5)  | YES  | MUL | NULL    |       |
+-----------+---------+------+-----+---------+-------+
1 row in set (0.001 sec)

MariaDB [employee]>
```

Add golongan column at employee table

```
MariaDB [employee]> alter table employee add column golongan char(1), add foreign key (golongan) references golongan(golongan);
Query OK, 0 rows affected (0.027 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [employee]> desc employee;
+--------------+----------+------+-----+---------+-------+
| Field        | Type     | Null | Key | Default | Extra |
+--------------+----------+------+-----+---------+-------+
| no_pegawai   | int(4)   | NO   | PRI | NULL    |       |
| nama_pegawai | char(50) | YES  |     | NULL    |       |
| golongan     | char(1)  | YES  | MUL | NULL    |       |
+--------------+----------+------+-----+---------+-------+
3 rows in set (0.003 sec)

MariaDB [employee]>
```

Add besar_gaji column at gologan table

```
MariaDB [employee]> alter table golongan add column besar_gaji float(20,2);
Query OK, 0 rows affected (0.014 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [employee]> desc golongan;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| golongan   | char(1)     | NO   | PRI | NULL    |       |
| besar_gaji | float(20,2) | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [employee]>
```

Add nama_proyek column at proyek table

```
MariaDB [employee]> alter table proyek add column nama_proyek char(50);
Query OK, 0 rows affected (0.013 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [employee]> desc proyek
    → exit
    → ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual
exit' at line 2
MariaDB [employee]> desc proyek;
+-------------+----------+------+-----+---------+-------+
| Field       | Type     | Null | Key | Default | Extra |
+-------------+----------+------+-----+---------+-------+
| no_proyek   | int(5)   | NO   | PRI | NULL    |       |
| nama_proyek | char(50) | YES  |     | NULL    |       |
+-------------+----------+------+-----+---------+-------+
2 rows in set (0.001 sec)

MariaDB [employee]>
```

Add no_pegawai column at proyek_pegawai table

```
MariaDB [employee]> alter table proyek_pegawai add column no_pegawai int(4) foreign key (no_pegawai) references employee(no_pegawai);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right sy
foreign key (no_pegawai) references employee(no_pegawai)' at line 1
MariaDB [employee]> alter table proyek_pegawai add column no_pegawai int(4), add foreign key (no_pegawai) references employee(no_pegawai);
Query OK, 0 rows affected (0.035 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [employee]> desc proyek_pegawai;
+------------+--------+------+-----+---------+-------+
| Field      | Type   | Null | Key | Default | Extra |
+------------+--------+------+-----+---------+-------+
| no_proyek  | int(5) | YES  | MUL | NULL    |       |
| no_pegawai | int(4) | YES  | MUL | NULL    |       |
+------------+--------+------+-----+---------+-------+
2 rows in set (0.003 sec)

MariaDB [employee]>
```

display data employee

```
MariaDB [employee]> select * from employee;
+-------------+---------------+-----------+
| no_pegawai  | nama_pegawai  | golongan  |
+-------------+---------------+-----------+
|           1 | azhar         | A         |
|           2 | rizqi         | B         |
+-------------+---------------+-----------+
2 rows in set (0.000 sec)

MariaDB [employee]> select * from ;
```

display data gologan

```
MariaDB [employee]> select * from golongan;
+-----------+--------------+
| golongan  | besar_gaji   |
+-----------+--------------+
| A         | 6500000.00   |
| B         | 5500000.00   |
+-----------+--------------+
2 rows in set (0.000 sec)

MariaDB [employee]>
```

display data proyek

```
MariaDB [employee]> select * from proyek;
+-----------+--------------------------+
| no_proyek | nama_proyek              |
+-----------+--------------------------+
|         1 | sistem peminjaman buku   |
|         2 | sistem informasi akademik|
+-----------+--------------------------+
2 rows in set (0.000 sec)

MariaDB [employee]>
```

display data proyek_pegawai

```
MariaDB [employee]> select * from proyek_pegawai;
+------------+------------+
| no_proyek  | no_pegawai |
+------------+------------+
|          1 |          1 |
|          2 |          2 |
+------------+------------+
2 rows in set (0.000 sec)

MariaDB [employee]>
```