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No : 04

# **Praktikum**

Soal 8 Tambahkan sebuah kolom agama (varchar(10)) pada tabel mahasiswa sebagai kolom terakhir

```
MariaDB [db_polinema]> alter table mahasiswa add column agama VARCHAR(10) after kode_prodi;
Query OK, 0 rows affected (0.009 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Soal 9 Tambahkan kolom alamat(varchar(50)) pada tabel dosen sebagai kolom terakhir

```
MariaDB [db_polinema]> alter table dosen add column alamat VARCHAR(50) after no_hp;
Query OK, 0 rows affected (0.008 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Soal 10 Lakukan insert data ke dalam tabel-tabel yang ada pada pada database db\_polinema sesuai dengan field, tipe data dan panjang datanya

```
MariaDB [db_polinema]> INSERT INTO mota_kuliah (mk_id, nama_mk, jumlah_jam, sks) VALUES ('MX001', 'Pancasila', 4.5, 3), ('MX002', 'Desain Web', 5.75, 4), ('MX003', 'Pancageman', 6.25, 4), ('MX004', 'Basis Data', 4.0, 3);
Query OK, 2 rows affected (0.009 sec)
Records: 2 Duplicates: 0 Warnings: 1

MariaDB [db_polinema]> INSERT INTO mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, asal_sma, no_hp, umur, kode_prodi, agama) VALUES (12345678, 'Ilham Gegana', 'L', ')1. Harum No. 123', 'MALANG', 'SMA Neger i 1', '081234567890', 20, 'KP001', 'Islam');
Query OK, 2 rows affected (0.004 sec)
Records: 2 Duplicates: 0 Warnings: 0

MariaDB [db_polinema]> INSERT INTO mata_kuliah (mk_id, nama_mk, jumlah_jam, sks) VALUES ('MX001', 'Pancasila', 4.5, 3), ('MX002', 'Desain Web', 5.75, 4), ('MX003', 'Pemrograman', 6.25, 4), ('MX004', 'Basis Data', 4.0, 3);
Query OK, 2 rows affected (0.009 sec)
Records: 4 Duplicates: 0 Warnings: 0

MariaDB [db_polinema]> INSERT INTO prodi (kode_prodi, nama_prodi) VALUES ('KP001', 'Teknik Informatika'),('KP002', 'Sistem Informasi'),('KP003', 'Manajemen'),('KP004', 'Akuntansi');
Query OK, 4 rows affected (0.009 sec)
Records: 4 Duplicates: 0 Warnings: 0

MariaDB [db_polinema]> INSERT INTO roung (ruang_id, nama_ruang, kapasitas) VALUES ('R01', 'Ruang A', 30), ('R02', 'Ruang B', 30), ('R03', 'Ruang C', 40), ('R04', 'Ruang D', 35);
Query OK, 4 rows affected (0.004 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

# Soal 11 Tampilkan semua tabel yang ada didalam database db polinema

# Soal 12 Tampilkan semua isi tabel yang ada didalam tabel mahasiswa

MariaDB [db_	polinema]> SELE	CT * FROM mahasi	iswa;			<b>.</b>		<b></b>	
nim	nama_mhs	jenis_kelamin	alamat	kota	asal_sma	no_hp	umur	kode_prodi	agama
12345678     23456789	Ilham Gegana   Maulana		Jl. Harum No. 123 Jl. Wangi No. 456					KP001 KP002	Islam   Islam
2 rows in se	t (0.000 sec)								

Soal 13 Tampilkan struktur(metadata) tabel mahasiswa

Field	Type	Null	Key	Default	Extra
nim	int(8)	NO NO	PRI	NULL	
nama_mhs	varchar(50)	YES		NULL	
jenis_kelamin	enum('L','P')	YES		L	l i
alamat	varchar(50)	YES		NULL	
kota	varchar(20)	YES		Malang	
asal_sma	varchar(30)	YES		NULL	
no_hp	varchar(12)	YES		NULL	
umur	int(11)	YES		NULL	l i
kode_prodi	varchar(6)	YES	MUL	NULL	i i
agama	varchar(10)	YES		NULL	l i

# Soal 14 hilangkan kolom asal\_sma yang terdapat didalam tabel mahasiswa

```
MariaDB [db_polinema]> ALTER TABLE mahasiswa DROP COLUMN asal_sma;
Query OK, 0 rows affected (0.007 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [db_polinema]> SELECT * FROM mahasiswa;
  nim
             nama_mhs
                               | jenis_kelamin | alamat
                                                                          kota
                                                                                    no_hp
                                                                                                      | umur | kode_prodi | agama
  12345678 | Ilham Gegana
                                                    Jl. Harum No. 123 | MALANG |
                                                                                      081234567890
                                                                                                           20
                                                                                                                KP001
                                                                                                                                Islam
                               l L
  23456789 | Maulana
                                                  | Jl. Wangi No. 456 | MALANG | 082345678901
                                                                                                           20
                                                                                                                KP002
                                                                                                                                Islam
                               | L
  rows in set (0.000 sec)
```

# TUGAS!!

- 1. deskripsikan struktur data dari table-tabel berikut serta isikan datanya: Tabel Mahasiswa {No\_Mhs, Nama\_mhs} Tabel Mata\_Kuliah {Kd\_MK, Nama\_MK} Tabel nilai {No\_Mhs, Kode\_MK} tambahkan kolom Jurusan pada tabel Mahasiswa di kolom terakhir
- tambahkan kolom Kode Dosen pada tabel Mata Kuliah
- tambahkan kolom nilai pada tabel nilai serta berikanlah kunci foreign key
- tambahkan Tabel Dosen dengan atributnya Kd\_Dosen dan Nama Dosen
- tampilkan semua data yang ada pada tiap tabel

```
riaDB [db_polinema]> create databa
ery OK, 1 row affected (0.001 sec)
ariaDB [db_polinema]> use jobsheetlOTugas1;
atabase changed
ariaDB [jobsheetlOTugas1]> CREATE TABLE Mahasiswa (No_Mhs INT PRIMARY KEY, Nama_mhs VARCHAR(50), Jurusan VARCHAR(50));
uery OK, 0 rows affected (0.018 sec.)
 ariaDB [jobsheetl0Tugas1]> INSERT INTO Mahasiswa (No_Mhs, Nama_mhs, Jurusan) VALUES
-> (1921001, 'Aminah', 'Mi'),
-> (1921002, 'Budiman', 'Mi'),
-> (1921003, 'Garina', 'Mi'),
-> (1921004, 'Della', 'Ti'),
-> (1921005, 'Firda', 'Ti');
pery OK, 5 rows affected (0.004 sec)
ccords: 5 Duplicates: 0 Warnings: 0
ariaDB [jobsheet10Tugas1]> CREATE TABLE Mata_Kuliah (Kd_MK VARCHAR(10) PRINARY KEY,Nama_MK VARCHAR(50),Kode_Dosen VARCHAR(10));
uery OK, 0 rows affected (0.012 sec)
 riaDB [jobsheet10Tugas1]> CREATE TABLE nilai (No_Mhs INT,Kd_MK VARCHAR(10), nilai INT, PRIMARY KEY (No_Mhs, Kd_MK), FOREIGH KEY (No_Mhs) REFERENCES Mahasiswa(No_Mhs), FOREIGH KEY (Nd_Mks), REFERENCES Mahasiswa(No_Mhs), FOREIGH KEY (Nd_Mks), F
    ery OK, 0 rows affected (0.015 sec)
       _MK));
ry OK, 0 rows affected (0.015 sec)
    riaD8 [jobsheet10Tugas1]> INSERT INTO nilai (No_Mhs, Kd_MK, nilai) VALUES
-> (1921001, 'M1350', 85),
-> (1921001, 'M1465', 87),
-> (1921002, 'M1465', 85),
-> (1921003, 'T1201', 78),
-> (1921004, 'T1201', 78),
-> (1921004)

ry OK, 5 rows affected (0.003 sec)
cords: 5 Duplicates: 0 Warnings: 0
```

```
ariaDB [jobsheet10Tugas1]> SELECT * FROM Mahasiswa;
No_Mhs | Nama_mhs | Jurusan
 1921001
          Aminah
                      ΜI
 1921002
           Budiman
 1921003
           Carina
 1921004
          Della
 1921005 | Firda
rows in set (0.000 sec)
ariaDB [jobsheet10Tugas1]> SELECT * FROM Mata_Kuliah;
Kd_MK | Nama_MK
                     | Kode_Dosen |
MI350 | Basis Data
                     B104
                       B105
MI465
        Pemrograman
 rows in set (0.000 sec)
NariaDB [jobsheet10Tugas1]> SELECT * FROM nilai;
No_Mhs | Kd_MK | nilai |
 1921001
          MI350
 1921001
          MI465
 1921002
          MI465
                      85
 1921003
           TI201
                      78
 1921004 | TI201
                      80
rows in set (0.000 sec)
MariaDB [jobsheet10Tugas1]> SELECT * FROM Dosen;
mpty set (0.001 sec)
|ariaDB [jobsheet10Tugas1]>
```

riaDB [jobsheet10Tugas1]> CREATE TABLE Dosen (
-> Kd\_Dosen VARCHAR(10) PRIMARY KEY,
-> Nama\_Dosen VARCHAR(50)

2. - Deskripsikan struktur data dari table-tabel berikut serta isikan datanya:

Table Pegawai (Nopegawai, NamaPegawai)

Tabel Golongan (Golongan)

Tabel Proyek (Noproyek)

Tabel Proyekpegawai {Noproyek}

- Tambahkan kolom Golongan pada tabel Pegawai di kolom terakhir
- Tambahkan kolom BesarGaji pada tabel Golongan di kolom terakhir
- Tambahkan kolom NamaProyek pada table Proyek
- Tambahkan kolom NoPegawai pada table Proyekpegawai serta berikanlah kunci foreign key
- Tampilkan semua data yang ada pada tiap tabel

```
MariaDB [jobsheet10Tugas1]> use jobsheet10Tugas2;
Database changed
MariaDB [jobsheet10Tugas2]> CREATE TABLE Pegawai (
         Nopegawai VARCHAR(10) PRIMARY KEY,
        NamaPegawai VARCHAR(50)
Query OK, 0 rows affected (0.012 sec)
MariaDB [jobsheet10Tugas2]> CREATE TABLE Golongan (
        Golongan VARCHAR(10) PRIMARY KEY,
       BesarGaji DECIMAL(10,2)
Query OK, 0 rows affected (0.012 sec)
MariaDB [jobsheet10Tugas2]> CREATE TABLE Proyek (
       Noproyek VARCHAR(10) PRIMARY KEY,
        NamaProyek VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.012 sec)
MariaDB [jobsheet10Tugas2]> CREATE TABLE Proyekpegawai (
        Noproyek VARCHAR(10),
        Nopegawai VARCHAR(10),
       PRIMARY KEY (Noproyek, Nopegawai),
FOREIGN KEY (Noproyek) REFERENCES Proyek(Noproyek),
    -> FOREIGN KEY (Nopegawai) REFERENCES Pegawai(Nopegawai)
    -> );
Query OK, 0 rows affected (0.019 sec)
MariaDB [jobsheet10Tugas2]> ALTER TABLE Pegawai ADD COLUMN Golongan VARCHAR(10);
Query OK, 0 rows affected (0.007 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [jobsheet10Tugas2]> ALTER TABLE Pegawai ADD FOREIGN KEY (Golongan) REFERENCES Golongan(Golongan);
Query OK, 0 rows affected (0.042 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [jobsheet10Tugas2]> INSERT INTO Golongan (Golongan, BesarGaji) VALUES
    -> ('A', 1000000),
-> ('B', 900000),
    -> ('C', 750000),
    -> ('D', 500000);
Query OK, 4 rows affected (0.003 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
MariaDB [jobsheet10Tugas2]> INSERT INTO Pegawai (Nopegawai, NamaPegawai, Golongan) VALUES
     -> ('Peg01', 'Anton', 'A'),
-> ('Peg02', 'Paula', 'B'),
-> ('Peg03', 'Daniar', 'C'),
-> ('Peg04', 'Lubis', 'C'),
-> ('Peg06', 'Koko', 'C'),
     -> ('Peg07', 'Keni', 'B'),
     -> ('Peg08', 'Sofi', 'B'),
                   , 'Sita'
                              , 'B'),
     -> ('Peg12'
     -> ('Peg14', 'Yusni', 'B'),
-> ('Peg15', 'Udin', 'D'),
     -> ( Peg13 , Oain , '),
-> ('Peg16', 'Didit', 'D'),
-> ('Peg17', 'Dani', 'D');
     -> ('Peg17', 'Dani',
Query OK, 12 rows affected (0.008 sec)
Records: 12 Duplicates: 0 Warnings: 0
MariaDB [jobsheet10Tugas2]> INSERT INTO Proyek (Noproyek, NamaProyek) VALUES
     -> ('NP001', 'BRR'),
                   , 'PEMDA'),
     -> ('NP002'
     -> ('NP003', 'CBR'),
-> ('NP004', 'ASK'),
     -> ('NP005', 'OB');
MariaDB [jobsheet10Tugas2]> INSERT INTO Proyekpegawai (Noproyek, Nopegawai) VALUES
     -> ('NP001', 'Peg01'),
-> ('NP001', 'Peg02'),
     -> ('NP001', 'Peg06'),
     -> ('NP002', 'Peg01'),
     -> ('NP002', 'Peg12'),
     -> ('NP002'
                   , 'Peg14'),
                   , 'Peg02'
     -> ('NP003'
     -> ('NP003', 'Peg03'),
-> ('NP003', 'Peg04'),
     -> ('NP004', 'Peg07'),
     -> ('NP004', 'Peg08'),
     -> ('NP004', 'Peg06'),
     -> ('NP005'
                   , 'Peg15'),
                   , 'Peg16'),
     -> ('NP005'
     -> ('NP005', 'Peg17');
Query OK, 15 rows affected (0.008 sec)
Records: 15 Duplicates: 0 Warnings: 0
MariaDB [jobsheet10Tugas2]> SELECT * FROM Pegawai;
 Nopegawai | NamaPegawai | Golongan |
 Peg01
              Anton
 Peg02
              Paula
                            В
  Peg03
              Daniar
 Peg04
              Lubis
  Peg06
              Koko
                            В
 Peg07
              Keni
 Peg08
              Sofi
                            В
 Peg12
              Sita
 Peg14
              Yusni
                            В
              Udin
  Peg15
                            D
 Peg16
              Didit
                            D
              Dani
                           | D
 Peg17
12 rows in set (0.001 sec)
MariaDB [jobsheet10Tugas2]> SELECT * FROM Golongan;
 Golongan | BesarGaji |
             1000000.00
 В
              900000.00
              750000.00
 D
              500000.00
```

4 rows in set (0.000 sec)

```
MariaDB [jobsheet10Tugas2]> SELECT * FROM Proyek;
 Noproyek | NamaProyek |
 NP001
            BRR
            PEMDA
 NP002
 NP003
            CBR
 NP004
            ASK
 NP005
           OB
 rows in set (0.000 sec)
MariaDB [jobsheet10Tugas2]> SELECT * FROM Proyekpegawai;
 Noproyek | Nopegawai |
 NP001
            Peg01
 NP001
            Peg02
 NP001
            Peg06
 NP002
            Peg01
 NP002
            Peg12
 NP002
            Peg14
 NP003
            Peg02
 NP003
            Peg03
 NP003
            Peg04
 NP004
            Peg06
 NP004
            Peg07
 NP004
            Peg08
 NP005
            Peg15
 NP005
            Peg16
 NP005
            Peg17
15 rows in set (0.000 sec)
```