

TUGAS

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Soal No. 8 Tambahkan sebuah kolom agama (varchar(10)) pada tabel mahasiswa sebagai kolom terakhir

```
mysql> ALTER TABLE mahasiswa ADD COLUMN agama varchar(10) AFTER kode_prodi;  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

Soal No. 9 Tambahkan kolom alamat(varchar(50)) pada tabel dosen sebagai kolom terakhir

```
mysql> ALTER TABLE dosen ADD COLUMN alamat varchar(50) AFTER no_hp;  
Query OK, 0 rows affected (0.01 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

Soal No. 10 Lakukan insert data ke dalam tabel-tabel yang ada pada database db_polinema sesuai dengan field, tipe data dan panjang datanya

```
mysql> INSERT INTO prodi (kode_prodi, nama_prodi) VALUES ('Pro001', 'Informatika');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> INSERT INTO mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, asal_sma, no_hp, umur, kode_prodi, agama) VALUES ('31750007', 'Wildani Danial Nafis', 'L', 'Bululawang', 'Malang', 'Man 1 Malang', '09218722', '17', 'Pro001', 'Islam');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> INSERT INTO mata_kuliah (mk_id, nama_mk, jumlah_jam, sks) VALUES ('Mk001', 'Basis Data', '5', '20');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> INSERT INTO ruang (ruang_id, nama_ruang, kapasitas) VALUES ('R01', 'Ruang Praktek', '30');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> INSERT INTO dosen (nidn, nama_dosen, status, jenis_kelamin, no_hp) VALUES ('872232221', 'Vana', 'PNS', 'P', '02189198');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> INSERT INTO dosen (nidn, nama_dosen, status, jenis_kelamin, no_hp, alamat) VALUES ('872232221', 'Vana', 'PNS', 'P', '02189198', 'Medan');  
Query OK, 1 row affected (0.00 sec)  
  
mysql>
```

Soal No. 11 Tampilkan semua tabel yang ada didalam database db_polinema

```
mysql> SHOW TABLES;  
+-----+  
| Tables_in_db_polinema |  
+-----+  
| dosen                  |  
| mahasiswa              |  
| mata_kuliah            |  
| prodi                  |  
| ruang                  |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql>
```

Soal no. 12 Tampilkan semua isi tabel yang ada didalam tabel mahasiswa

```
mysql> SELECT * FROM mahasiswa;
```

nim	nama_mhs	jenis_kelamin	alamat	kota	no_hp	umur	kode_prodi	agama
31750007	Wildani Danial Nafis	L	Bululawang	Malang	09218722	17	Pro001	Islam

1 row in set (0.01 sec)

Soal no. 13 Tampilkan struktur(metadata) tabel mahasiswa

```
mysql> DESC mahasiswa;
```

Field	Type	Null	Key	Default	Extra
nim	int	NO	PRI	NULL	
nama_mhs	varchar(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	YES		NULL	
kode_prodi	char(6)	YES	MUL	NULL	
agama	varchar(10)	YES		NULL	

9 rows in set (0.02 sec)

```
mysql> _
```

Soal no. 14 hilangkan kolom asal_sma yang terdapat didalam tabel mahasiswa

```
mysql> ALTER TABLE mahasiswa DROP COLUMN asal_sma;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> _
```

1. a. Tabel Mahasiswa

CREATE DATABASE akademik; Untitled-1

Run on active connection | Select block

```

1 CREATE DATABASE akademik;
2 USE akademik;
3
4 CREATE TABLE Mahasiswa (
5     No_Mhs CHAR (10) PRIMARY KEY,
6     Nama_mhs VARCHAR (100)
7 );
8
9 INSERT INTO Mahasiswa (No_Mhs, Nama_mhs) VALUES
10 ('1921001', 'Aminah'),
11 ('1921002', 'Budiman'),
12 ('1921003', 'Carina'),
13 ('1921004', 'Della'),
14 ('1921005', 'Firda');
```

Project_MySQL: 5 records on 'mahasiswa' table

No_Mhs	Nama_mhs
Filter...	Filter...
1921001	Aminah
1921002	Budiman
1921003	Carina
1921004	Della
1921005	Firda

Tabel Mata Kuliah

CREATE DATABASE akademik; Untitled-1

```

1 CREATE DATABASE akademik;
2 USE akademik;
3
4 CREATE TABLE Mata_Kuliah (
5     Kd_MK CHAR (10) PRIMARY KEY,
6     Nama_MK VARCHAR (100)
7 );
8
9 INSERT INTO akademik.Mata_Kuliah (Kd_MK, Nama_MK) VALUES
10 ('MI350', 'Basis Data'),
11 ('MI465', 'Pemrograman'),
12 ('TI201', 'Mobile');

```

Project_MySQL: 3 records on 'mata_kuliah' table

Kd_MK	Nama_MK
MI350	Basis Data
MI465	Pemrograman
TI201	Mobile

Tabel Nilai

```

ALTER TABLE akademik.nilai
ADD FOREIGN KEY (No_Mhs) REFERENCES mahasiswa (No_Mhs),
ADD FOREIGN KEY (Kd_MK) REFERENCES mata_kuliah (Kd_MK);

```

nilai

- No_Mhs CHAR(10)
- Kd_MK VARCHAR(100)

Kolom Jurusan

CREATE DATABASE akademik; Untitled-1

```

1 CREATE DATABASE akademik;
2 USE akademik;
3
4 ALTER TABLE akademik.mahasiswa
5 ADD COLUMN Jurusan VARCHAR(50) AFTER Nama_mhs;
6
7 UPDATE akademik.mahasiswa
8 SET Jurusan = 'TI'
9 WHERE No_Mhs = '1921005';

```

Project_MySQL: 5 records on 'mahasiswa' table

No_Mhs	Nama_mhs	Jurusan
1921001	Aminah	MI
1921002	Budiman	MI
1921003	Carina	MI
1921004	Della	TI
1921005	Firda	TI

b. Kolom dosen pada tabel Mata Kuliah

CREATE DATABASE akademik; Untitled-1

```

1 CREATE DATABASE akademik;
2 USE akademik;
3
4 ALTER TABLE akademik.mata_kuliah
5 ADD COLUMN Kd_Dosen CHAR (10) AFTER Nama_MK
6
7 UPDATE akademik.mata_kuliah
8 SET Kd_Dosen = 'C102'
9 WHERE Kd_MK = 'TI201';

```

Project_MySQL: 3 records on 'mata_kuliah' table

Kd_MK	Nama_MK	Kd_Dosen
MI350	Basis Data	B104
MI465	Pemrograman	B105
TI201	Mobile	C102

c. Kolom nilai pada tabel Nilai

Project_MySQL: 5 records on 'nilai' table ✕			
No_Mhs	Kd_MK	nilai	
abc Filter...	abc Filter...	abc Filter...	
1921001	MI350	85	
1921002	MI465	87	
1921003	MI465	85	
1921004	TI201	78	
1921005	TI201	80	

d. Tabel Dosen

CREATE DATABASE akademik; Untitled-1 ●		Project_MySQL: 3 records on 'dosen' table ✕	
<pre>1 CREATE DATABASE akademik; 2 USE akademik; 3 4 CREATE TABLE dosen (5 Kd_Dosen CHAR (10) PRIMARY KEY, 6 Nama_Dosen VARCHAR (100) 7); 8 9 INSERT INTO akademik.dosen (Kd_Dosen, Nama_Dosen) VALUES 10 ('B104', 'Ati'), 11 ('B105', 'Dita'), 12 ('C102', 'Leo');</pre>		Kd_Dosen	Nama_Dosen
		abc Filter...	abc Filter...
		B104	Ati
		B105	Dita
		C102	Leo

Tampilan Semua Tabel

```
mysql> SELECT * FROM dosen;
```

Kd_Dosen	Nama_Dosen
B104	Ati
B105	Dita
C102	Leo

```
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM mahasiswa;
```

No_Mhs	Nama_mhs	Jurusan
1921001	Aminah	MI
1921002	Budiman	MI
1921003	Carina	MI
1921004	Della	TI
1921005	Firda	TI

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM mata_kuliah;
```

Kd_MK	Nama_MK	Kd_Dosen
MI350	Basis Data	B104
MI465	Pemrograman	B105
TI201	Mobile	C102

```
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM nilai;
```

No_Mhs	Kd_MK	nilai
1921001	MI350	85
1921002	MI465	87
1921003	MI465	85
1921004	TI201	78
1921005	TI201	80

2. a. Tabel Pegawai

CREATE DATABASE Pegawai; Untitled-1		Project_MySQL: 13 records on 'pegawai' table
<pre>3 4 CREATE TABLE pegawai.Pegawai (5 NoPegawai CHAR (20) PRIMARY KEY, 6 NamaPegawai VARCHAR (100) 7); 8 9 INSERT INTO pegawai.pegawai (NoPegawai, NamaPegawai) VALUES 10 ('Peg01', 'Ati'), 11 ('Peg02', 'Dita'), 12 ('Peg05', 'Koko'), 13 ('Peg12', 'Sita'), 14 ('Peg14', 'Yusni'), 15 ('Peg03', 'Danar'), 16 ('Peg04', 'Lubis'), 17 ('Peg07', 'Keni'), 18 ('Peg08', 'Sofi'), 19 ('Peg06', 'Yuni'), 20 ('Peg15', 'Udin'), 21 ('Peg16', 'Didit'), 22 ('Peg17', 'Dani');</pre>		
NoPegawai	NamaPegawai	
Filter...	Filter...	
Peg01	Ati	
Peg02	Dita	
Peg03	Danar	
Peg04	Lubis	
Peg05	Koko	
Peg06	Yuni	
Peg07	Keni	
Peg08	Sofi	
Peg12	Sita	
Peg14	Yusni	
Peg15	Udin	
Peg16	Didit	
Peg17	Dani	

Tabel Golongan

CREATE DATABASE Pegawai; Untitled-1		Project_MySQL: 4 records
<pre>1 CREATE DATABASE Pegawai; 2 USE Pegawai; 3 4 CREATE TABLE pegawai.Golongan (5 Golongan CHAR (3) 6); 7 8 INSERT INTO pegawai.golongan (Golongan) VALUES 9 ('A'), 10 ('B'), 11 ('C'), 12 ('D');</pre>		
Golongan		
Filter...		
A		
B		
C		
D		

Tabel Proyek

CREATE DATABASE Pegawai; Untitled-1		Project_MySQL: 5 records
<pre>1 CREATE DATABASE Pegawai; 2 USE Pegawai; 3 4 CREATE TABLE pegawai.Proyek (5 NoProyek CHAR (20) PRIMARY KEY 6); 7 8 INSERT INTO pegawai.proyek (NoProyek) VALUES 9 ('NP001'), 10 ('NP002'), 11 ('NP003'), 12 ('NP004'), 13 ('NP005');</pre>		
NoProyek		
Filter...		
NP001		
NP002		
NP003		
NP004		
NP005		

Tabel Proyek Pegawai

☰

CREATE DATABASE Pegawai; Untitled-1 ●

☐ ...

📁 Project_MySQL: 0 records

▶ Run on active connection | ≡ Select block

1 CREATE DATABASE Pegawai;

2 USE Pegawai;

3

4 CREATE TABLE proyekpegawai (NoProyek CHAR(20))

NoProyek

abc Filter...

b. Kolom Golongan pada tabel pegawai

CREATE DATABASE Pegawai; Untitled-1

Run on active connection | Select block

```
1 CREATE DATABASE Pegawai;
2 USE Pegawai;
3
4 ALTER TABLE pegawai.pegawai
5 ADD COLUMN Golongan CHAR (3) AFTER NamaPegawai;
6
7 UPDATE pegawai.pegawai
8 set Golongan = 'A'
9 WHERE NamaPegawai = 'Ati'
10
11 UPDATE pegawai.pegawai
12 set Golongan = 'B'
13 WHERE NamaPegawai = 'Keni'
14
15 UPDATE pegawai.pegawai
16 set Golongan = 'C'
17 WHERE NamaPegawai = 'Lubis'
18
19 UPDATE pegawai.pegawai
20 set Golongan = 'D'
21 WHERE NamaPegawai = 'Dani'
```

Project_MySQL: 13 records on 'pegawai' table

NoPegawai	NamaPegawai	Golongan
abc Filter...	abc Filter...	abc Filter...
Peg01	Ati	A
Peg02	Paula	B
Peg03	Daniar	C
Peg04	Lubis	C
Peg05	Koko	C
Peg06	Yuni	C
Peg07	Keni	B
Peg08	Sofi	B
Peg12	Sita	B
Peg14	Yusni	B
Peg15	Udin	D
Peg16	Didit	D
Peg17	Dani	D

c. Kolom Besar Gaji pada Tabel golongan

CREATE DATABASE Pegawai; Untitled-1	Project_MySQL: 4 records on 'golongan' table												
<pre> 1 CREATE DATABASE Pegawai; 2 USE Pegawai; 3 4 ALTER TABLE pegawai.golongan 5 ADD COLUMN BesarGaji int AFTER golongan; 6 7 UPDATE pegawai.golongan 8 SET BesarGaji = 500000 9 WHERE Golongan = 'D' 10 11 UPDATE pegawai.golongan 12 SET BesarGaji = 750000 13 WHERE Golongan = 'C' 14 15 UPDATE pegawai.golongan 16 SET BesarGaji = 900000 17 WHERE Golongan = 'B' 18 19 UPDATE pegawai.golongan 20 SET BesarGaji = 1000000 21 WHERE Golongan = 'A' </pre>	<table> <tr> <th>Golongan</th> <th>BesarGaji</th> </tr> <tr> <td>abc Filter...</td> <td>abc Filter...</td> </tr> <tr> <td>A</td> <td>1000000</td> </tr> <tr> <td>B</td> <td>900000</td> </tr> <tr> <td>C</td> <td>750000</td> </tr> <tr> <td>D</td> <td>500000</td> </tr> </table>	Golongan	BesarGaji	abc Filter...	abc Filter...	A	1000000	B	900000	C	750000	D	500000
Golongan	BesarGaji												
abc Filter...	abc Filter...												
A	1000000												
B	900000												
C	750000												
D	500000												

d. Kolom NamaProyek pada tabel proyek

SQLTools interface showing the following SQL commands:

```

1 CREATE DATABASE Pegawai;
2 USE Pegawai;
3
4 ALTER TABLE pegawai.proyek
5 ADD COLUMN NamaProyek CHAR (20) AFTER NoProyek;
6
7 UPDATE pegawai.proyek
8 SET NamaProyek = 'OB'
9 WHERE NoProyek = 'NP005';
  
```

Table view on the right (Project_MySQL: 5 records on 'proyek' table):

NoProyek	NamaProyek
NP001	BRR
NP002	PEMDA
NP003	CBR
NP004	ASK
NP005	OB

SQLTools interface showing the following SQL commands:

```

1 CREATE DATABASE Pegawai;
2 USE Pegawai;
3
4 ALTER TABLE pegawai.proyekpegawai
5 ADD COLUMN NoPegawai CHAR(20)
6
7 ALTER TABLE pegawai.proyekpegawai
8 ADD FOREIGN KEY (NoPegawai) REFERENCES pegawai (NoPegawai)
  
```

Connections tree on the left:

- proyek
 - NoProyek CHAR(20)
 - NamaProyek CHAR(20)
- proyekpegawai
 - NoProyek CHAR(20)
 - NoPegawai CHAR(20)

e. Kolom NoPegawai pada tabel ProyekPegawai

Foreign Key

f. Data pada setiap tabel

