

TUGAS

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Prodi : Manajemen Informatika

Kelas : 1A

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', 'Bu
lulawang', '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

Run on active connection | Select block

```

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
Filter...	Filter...
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

Run on active connection | Select block

```

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
Filter...	Filter...	Filter...
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

Run on active connection | Select block

```
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 X

Kd_MK	Nama_MK	Kd_Dosen
Filter...	Filter...	Filter...
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

<div>CREATE DATABASE akademik; Untitled-1</div> <div>Run on active connection Select block</div> <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>	<div>Project_MySQL: 3 records on 'dosen' table</div> <table> <tr> <th>Kd_Dosen</th><th>Nama_Dosen</th></tr> <tr> <td>abc Filter...</td><td>abc Filter...</td></tr> <tr> <td>B104</td><td>Ati</td></tr> <tr> <td>B105</td><td>Dita</td></tr> <tr> <td>C102</td><td>Leo</td></tr> </table>	Kd_Dosen	Nama_Dosen	abc Filter...	abc Filter...	B104	Ati	B105	Dita	C102	Leo
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> 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>	<table> <thead> <tr> <th>NoPegawai</th><th>NamaPegawai</th></tr> </thead> <tbody> <tr><td>Filter...</td><td>Filter...</td></tr> <tr><td>Peg01</td><td>Ati</td></tr> <tr><td>Peg02</td><td>Dita</td></tr> <tr><td>Peg03</td><td>Danar</td></tr> <tr><td>Peg04</td><td>Lubis</td></tr> <tr><td>Peg05</td><td>Koko</td></tr> <tr><td>Peg06</td><td>Yuni</td></tr> <tr><td>Peg07</td><td>Keni</td></tr> <tr><td>Peg08</td><td>Sofi</td></tr> <tr><td>Peg12</td><td>Sita</td></tr> <tr><td>Peg14</td><td>Yusni</td></tr> <tr><td>Peg15</td><td>Udin</td></tr> <tr><td>Peg16</td><td>Didit</td></tr> <tr><td>Peg17</td><td>Dani</td></tr> </tbody> </table>	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
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

Run on active connection | Select block

```
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');
```

Project_MySQL: 4 records

Golongan

Filter...

A

B

C

D

Tabel Proyek

CREATE DATABASE Pegawai; Untitled-1

Run on active connection | Select block

```
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');
```

Project_MySQL: 5 records

NoProyek
Filter...
NP001
NP002
NP003
NP004
NP005

Tabel Proyek Pegawai

The screenshot shows a SQL IDE interface. The top bar indicates the current database is 'Project_MySQL' with 0 records. The main editor displays the following SQL commands:

```
1 CREATE DATABASE Pegawai;  
2 USE Pegawai;  
3  
4 CREATE TABLE proyekpegawai (NoProyek CHAR(20))
```

The right sidebar shows a table named 'NoProyekK' with a 'Filter...' button.

b. Kolom Golongan pada tabel pegawai

The screenshot shows a SQL IDE interface. The top bar indicates the current database is 'Project_MySQL' with 13 records on the 'pegawai' table. The main editor displays the following SQL commands:

```
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'
```

The right sidebar shows a table named 'pegawai' with columns 'NoPegawai', 'NamaPegawai', and 'Golongan'. The table contains 13 records:

NoPegawai	NamaPegawai	Golongan
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

```

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'

```

Golongan	BesarGaji
A	1000000
B	900000
C	750000
D	500000

d. Kolom NamaProyek pada tabel proyek

CREATE DATABASE Pegawai; Untitled-1

Project_MySQL: 5 records on 'proyek' table

```

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'

```

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

e. Kolom NoPegawai pada tabel ProyekPegawai

SQLTOOLS

CONNECTIONS

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

Foreign Key

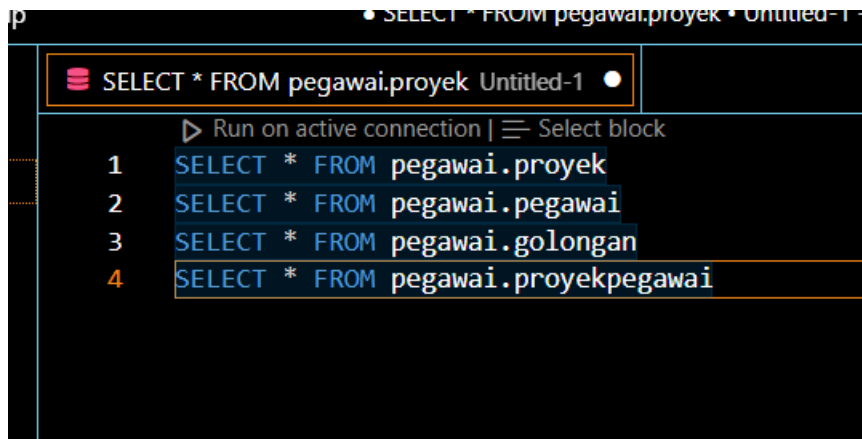
CREATE DATABASE Pegawai; Untitled-1

```

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)

```


f. Data pada setiap tabel



Project_MySQL: 5 records on 'proj' ...		Project_MySQL: 13 records on 'pegawai' table X			Project_MySQL: 4 records on 'golong' ...		Project_MySQL: 15 records on 'proyekpegawai' table X		
NoProyek	NamaProyek	NoPegawai	NamaPegawai	Golongan	Golongan	BesarGaji	NoProyek	NoPegawai	
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...	Filter...	Filter...	Filter...	
NP001	BRR	Peg01	Ati	A	A	1000000	NP001	Peg01	
NP002	PEMDA	Peg02	Paula	B	B	900000	NP001	Peg02	
NP003	CBR	Peg03	Daniar	C	C	750000	NP001	Peg05	
NP004	ASK	Peg04	Lubis	C	D	500000	NP002	Peg01	
NP005	OB	Peg05	Koko	C			NP002	Peg12	
		Peg06	Yuni	C			NP002	Peg14	
		Peg07	Keni	B			NP003	Peg02	
		Peg08	Sofi	B			NP003	Peg03	
		Peg12	Sita	B			NP003	Peg04	
		Peg14	Yusni	B			NP004	Peg07	
		Peg15	Udin	D			NP004	Peg08	
		Peg16	Didit	D			NP004	Peg06	
		Peg17	Dani	D			NP005	Peg15	
							NP005	Peg16	
							NP005	Peg17	