

LAPORAN BASIS DATA

PERTEMUAN 9



Nama

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Tanggal

16 April 2024

Praktikum

8	<p>Tambahkan sebuah kolom agama (varchar(10)) pada tabel mahasiswa sebagai kolom terakhir</p> <pre>-- no. 8 Run New Tab ALTER TABLE mahasiswa ADD (agama VARCHAR(10));</pre>
9	<p>Tambahkan kolom alamat(varchar(50)) pada tabel dosen sebagai kolom terakhir</p> <pre>-- no.9 Run New Tab ALTER TABLE dosen ADD (alamat VARCHAR(50));</pre>
10	<p>Lakukan insert data ke dalam tabel-tabel yang ada pada database db_polinema sesuai dengan field, tipe data dan panjang datanya</p> <pre>-- no. 10 Run New Tab INSERT INTO dosen (nidn, nama_dosen, status, jenis_kelamin, no_hp, alamat) VALUES (1235, 'Dosen 2', 'KONTRAK', 'P', '08987654321', 'Jl. SULFAT'); Run New Tab INSERT INTO mata_kuliah(mk_id, nama_mk, jumlah_jam,sks) VALUES ('MK1', 'Praktikum Basdat', 4.0, 3), ('MK2', 'Teori Basdat', 3.0, 2); Run New Tab INSERT INTO ruang (ruang_id, nama_ruang,kapasitas) VALUES ('R1', 'LPR1', 30), ('R2', 'LPR2', 30); Run New Tab INSERT INTO prodi (kode_prodi, nama_prodi) VALUES ('P1', 'Teknik Informatika'), ('P2', 'Sistem Informasi Bisnis'); Run New Tab INSERT INTO mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, asal_sma, no_hp, umur, kode_prodi, agama) VALUES (23417201, 'Rafi Raja', 'L', 'Pakis', 'Malang', 'SMA 1', '0891273645', 20, 'P1', 'Islam'), (23417202, 'Necha', 'P', 'Suhat', 'Probolinggo', 'SMA 2', '089237840', 19, 'P2', 'Islam');</pre>
11	<p>Tampilkan semua tabel yang ada didalam database db_polinema</p> <pre>-- no. 11 Run New Tab SHOW TABLES;</pre>
12	<p>Tampilkan semua isi tabel yang ada didalam tabel mahasiswa</p>

	<pre>-- no. 12 Run New Tab JSON SELECT * FROM mahasiswa;</pre>
13	<p>Tampilkan struktur(metadata) tabel mahasiswa</p> <pre>-- no. 13 Run New Tab DESC mahasiswa</pre>
14	<p>hilangkan kolom asal_sma yang terdapat didalam tabel mahasiswa</p> <pre>-- no.14 Run New Tab ALTER TABLE mahasiswa DROP COLUMN asal_sma;</pre>

Tugas

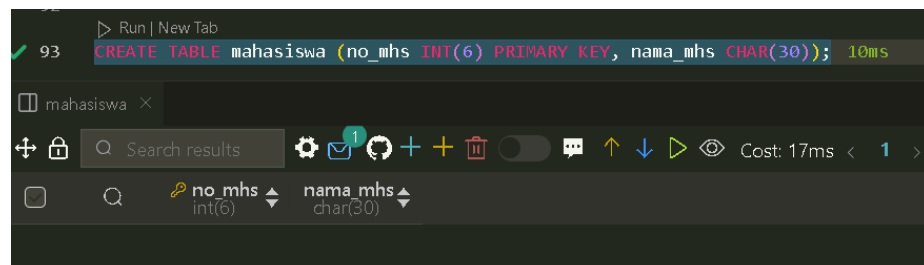
Buatlah basis data Akademik dengan data sebagai berikut :

No_Mhs	Nama_mhs	Jurusan	Kd_MK	Nama_mk	Kd_Dosen	Nm_Dosen	nilai
1921001	Aminah	MI	MI350	Basis Data	B104	Ati	85
1921001	Budiman	MI	MI465	Pemrograman	B105	Dita	87
1921002	Carina	MI	MI465	Pemrograman	B105	Dita	85
1921003	Della	TI	TI201	Mobile	C102	Leo	78
1921004	Firda	TI	TI201	Mobile	C102	Leo	80

1) deskripsikan struktur data dari table-tabel berikut serta isikan datanya:

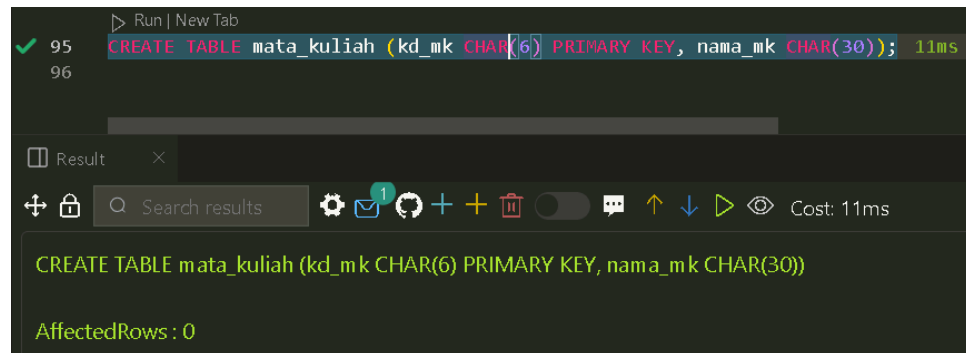
a) Tabel Mahasiswa {No_Mhs, Nama_mhs}

Jawab:



- b) Tabel Mata_Kuliah {Kd_MK, Nama_MK}

Jawab:



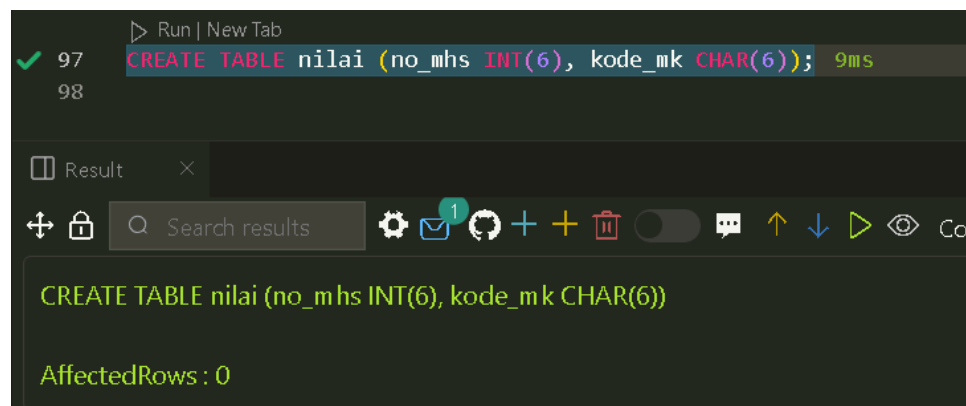
The screenshot shows a SQL execution window with a dark theme. At the top, a status bar indicates a successful execution (green checkmark) at line 95, column 96, with a cost of 11ms. The SQL command entered is `CREATE TABLE mata_kuliah (kd_mk CHAR(6) PRIMARY KEY, nama_mk CHAR(30));`. Below the command, the results pane shows the same command and indicates that 0 rows were affected.

```
CREATE TABLE mata_kuliah (kd_mk CHAR(6) PRIMARY KEY, nama_mk CHAR(30));
```

AffectedRows : 0

- c) Tabel nilai {No_Mhs, Kode_MK}

Jawab:



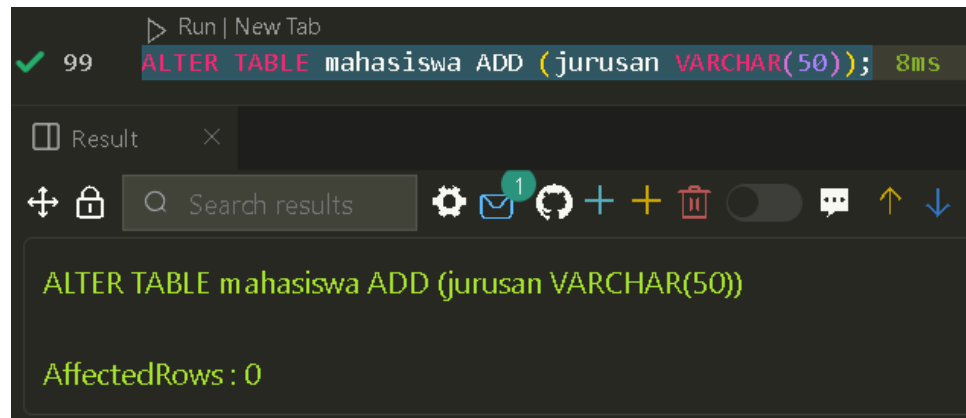
The screenshot shows a SQL execution window with a dark theme. At the top, a status bar indicates a successful execution (green checkmark) at line 97, column 98, with a cost of 9ms. The SQL command entered is `CREATE TABLE nilai (no_mhs INT(6), kode_mk CHAR(6));`. Below the command, the results pane shows the same command and indicates that 0 rows were affected.

```
CREATE TABLE nilai (no_mhs INT(6), kode_mk CHAR(6));
```

AffectedRows : 0

- d) tambahkan kolom Jurusan pada tabel Mahasiswa di kolom terakhir

Jawab:



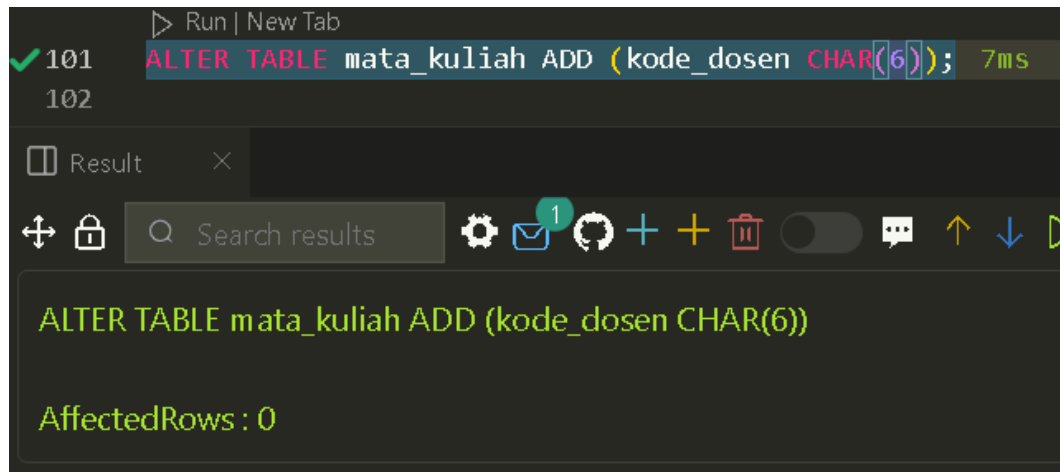
The screenshot shows a SQL execution window with a dark theme. At the top, a status bar indicates a successful execution (green checkmark) at line 99, column 99, with a cost of 8ms. The SQL command entered is `ALTER TABLE mahasiswa ADD (jurusan VARCHAR(50));`. Below the command, the results pane shows the same command and indicates that 0 rows were affected.

```
ALTER TABLE mahasiswa ADD (jurusan VARCHAR(50));
```

AffectedRows : 0

- 2) tambahkan kolom Kode Dosen pada tabel Mata Kuliah

Jawab:



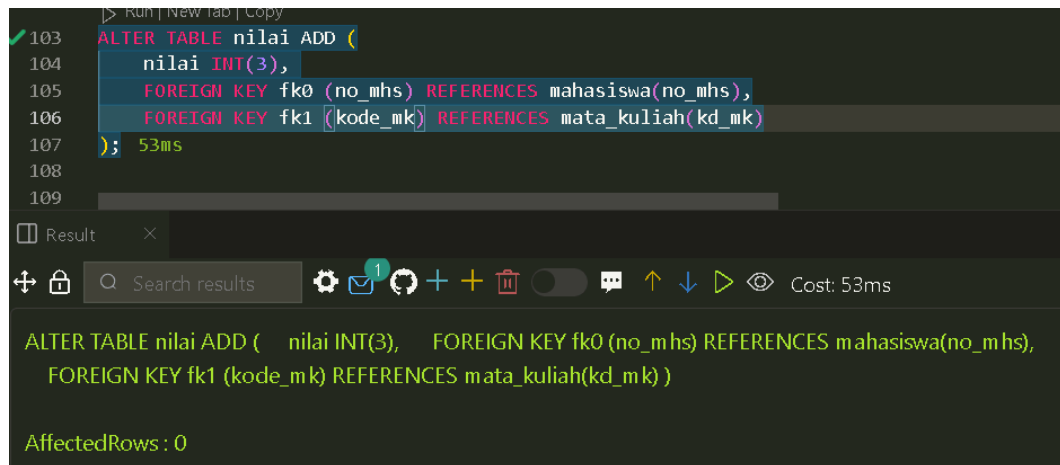
The screenshot shows a SQL query execution interface. The query is: `ALTER TABLE mata_kuliah ADD (kode_dosen CHAR(6));`. The execution time is 7ms. The result pane shows the query text and `AffectedRows: 0`.

```
Run | New Tab
101 ALTER TABLE mata_kuliah ADD (kode_dosen CHAR(6)); 7ms
102

Result
Search results
ALTER TABLE mata_kuliah ADD (kode_dosen CHAR(6))
AffectedRows: 0
```

- 3) tambahkan kolom nilai pada tabel nilai serta berikanlah kunci foreign key

Jawab:



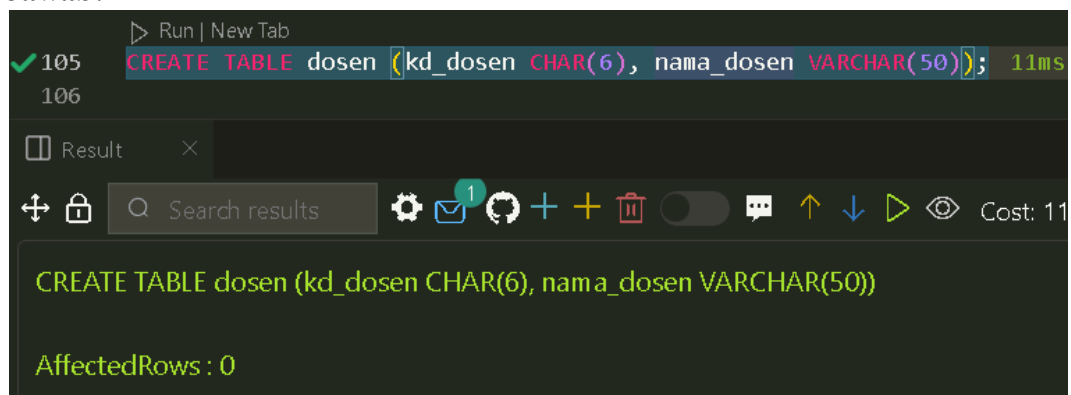
The screenshot shows a SQL query execution interface. The query is: `ALTER TABLE nilai ADD (nilai INT(3), FOREIGN KEY fk0 (no_mhs) REFERENCES mahasiswa(no_mhs), FOREIGN KEY fk1 (kode_mk) REFERENCES mata_kuliah(kd_mk));`. The execution time is 53ms. The result pane shows the query text and `AffectedRows: 0`.

```
Run | New Tab | Copy
103 ALTER TABLE nilai ADD (
104     nilai INT(3),
105     FOREIGN KEY fk0 (no_mhs) REFERENCES mahasiswa(no_mhs),
106     FOREIGN KEY fk1 (kode_mk) REFERENCES mata_kuliah(kd_mk)
107 ); 53ms
108
109

Result
Search results
ALTER TABLE nilai ADD ( nilai INT(3), FOREIGN KEY fk0 (no_mhs) REFERENCES mahasiswa(no_mhs),
FOREIGN KEY fk1 (kode_mk) REFERENCES mata_kuliah(kd_mk) )
AffectedRows: 0
```

- 4) tambahkan Tabel Dosen dengan atributnya Kd_Dosen dan Nama Dosen

Jawab:



The screenshot shows a SQL query execution interface. The query is: `CREATE TABLE dosen (kd_dosen CHAR(6), nama_dosen VARCHAR(50));`. The execution time is 11ms. The result pane shows the query text and `AffectedRows: 0`.

```
Run | New Tab
105 CREATE TABLE dosen (kd_dosen CHAR(6), nama_dosen VARCHAR(50)); 11ms
106

Result
Search results
CREATE TABLE dosen (kd_dosen CHAR(6), nama_dosen VARCHAR(50))
AffectedRows: 0
```

- 5) tampilkan semua data yang ada pada tiap tabel

Jawab:

Run | New Tab | JSON

✓ 137
138

`SELECT * FROM mahasiswa;` 2ms

mahasiswa ×

Search results

< 1 > Total 4

		no_mhs int	nama_mhs string	jurusan varchar
> 1		1921001	Aminah	MI
> 2		1921002	Budiman	MI
> 3		1921003	Carina	MI
> 4		1921004	Della	TI
> 5		1921005	Firda	TI

Run | New Tab | JSON

✓ 139
140

`SELECT * FROM dosen;` 1ms

dosen ×

Search results

< 1 > Total 2

		kd_dosen string	nama_dose varchar
> 1		B104	Ati
> 2		B105	Dita
> 3		C102	Leo

Run | New Tab | JSON

✓ 141
142

`SELECT * FROM mata_kuliah;` 1ms

mata_kuliah ×

Search results

< 1 > Total 2

		kd_mk string	nama_mk string	kode_dose string
> 1		MI350	Basis Data	B104
> 2		MI465	Pemrograman	B105
> 3		TI201	Mobile	C102

Run | New Tab | JSON

✓ 143
144

`SELECT * FROM nilai;` 1ms

nilai ×

Search results

< 1 > Total 4

		no_mhs int	kode_mk string	nilai int
> 1		1921001	MI350	85
> 2		1921002	MI465	87
> 3		1921003	MI465	85
> 4		1921004	TI201	78
> 5		1921005	TI201	80