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Kelas : TI.22.A.5

TUGAS : Basis Data Praktikum5

Buat table mahasiswa

```
CREATE TABLE `latihan5`.`mahasiswa` ( `nim` INT NOT NULL, `nama` VARCHAR(45)
NULL, `jk` VARCHAR(45) NULL, `tgl_lahir` VARCHAR(45) NULL, `jalan` VARCHAR(45)
NULL, `kota` VARCHAR(45) NULL, `kodepos` VARCHAR(45) NULL, `nohp`
VARCHAR(45) NULL, `kd_ds` VARCHAR(45) NULL, PRIMARY KEY (`nim`));
```

```
INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`, `kd_ds`) VALUES
('1812345', 'Ari Santoso', 'L', '1999-10-11', 'bekasi', 'DS002');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1823456', 'Dina Marlina', 'P', '1998-11-20', 'jakarta');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1834567', 'Rahmat Hidayat', 'L', '1999-05-10', 'bekasi');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1845678', 'Jaka Sampurna', 'L', '2000-10-19', 'cikarang');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1856789', 'Tia Lestari', 'P', '1999-02-15', 'karawang');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1867890', 'Anton Sinaga', 'L', '1998-06-22', 'bekasi');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1912345', 'Listia Nasiti', 'P', '2001-10-23', 'jakarta');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`, `kd_ds`) VALUES
('1923456', 'Amira Jarisa ', 'P', '2001-01-24', 'karawang', 'DS004');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1934567', 'Laksana Mardito', 'L', '1999-01-14', 'cikarang');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`) VALUES
('1945678', 'Jura Marsina', 'P', '2000-05-10', 'cikarang ');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`, `kd_ds`) VALUES
('1956789', 'Dadi Martani', 'L', '2001-08-29', 'bekasi', 'DS005');

INSERT INTO `latihan5`.`mahasiswa` (`nim`, `nama`, `jk`, `tgl_lahir`, `kota`, `kd_ds`) VALUES
('1967890', 'Bayu Laksono', 'L', '1999-07-22', 'cikarang', 'DS004');
```

	nim	nama	jk	tgl_lahir	jalan	kota	kodepos	nohp	kd_ds
►	1812345	Ari Santoso	L	1999-10-11	NULL	bekasi	NULL	NULL	DS002
	1823456	Dina Marlina	P	1998-11-20	NULL	jakarta	NULL	NULL	NULL
	1834567	Rahmat Hida...	L	1999-05-10	NULL	bekasi	NULL	NULL	NULL
	1845678	Jaka Sampurna	L	2000-10-19	NULL	cikarang	NULL	NULL	NULL
	1856789	Tia Lestari	P	1999-02-15	NULL	karawang	NULL	NULL	NULL
	1867890	Anton Sinaga	L	1998-06-22	NULL	bekasi	NULL	NULL	NULL
	1912345	Listia Nasiti	P	2001-10-23	NULL	jakarta	NULL	NULL	NULL
	1923456	Amira Jarisa	P	2001-01-24	NULL	karawang	NULL	NULL	DS004
	1934567	Laksana Mar...	L	1999-01-14	NULL	cikarang	NULL	NULL	NULL
	1945678	Jura Marsina	P	2000-05-10	NULL	cikarang	NULL	NULL	NULL
	1956789	Dadi Martani	L	2001-08-29	NULL	bekasi	NULL	NULL	DS005
	1967890	Bayu Laksono	L	1999-07-22	NULL	cikarang	NULL	NULL	DS004

Buat tabel dosen

```
CREATE TABLE `latihan5`.`dosen` ( `kd_ds` INT NOT NULL, `nama` VARCHAR(45)
NULL, PRIMARY KEY (`kd_ds`));
```

```
INSERT INTO `` (`kd_ds`,`nama`) VALUES ('DS001','Noval Arianto');
INSERT INTO `` (`kd_ds`,`nama`) VALUES ('DS002','Ario Talib');
INSERT INTO `` (`kd_ds`,`nama`) VALUES ('DS003','Ayu Rahmadina');
INSERT INTO `` (`kd_ds`,`nama`) VALUES ('DS004','Ratna Kumala');
INSERT INTO `` (`kd_ds`,`nama`) VALUES ('DS005','vika Prasetyo');
```

	kd_ds	nama
▶	DS001	Noval Arianto
	DS002	Ario Talib
	DS003	Ayu Rahmadina
	DS004	Ratna Kumala
	DS005	vika Prasetyo

Buat table mata kuliah

```
CREATE TABLE `latihan5`.`matakuliah` (`kd_mk` INT NOT NULL, `nama` VARCHAR(45)
NULL,`sks` VARCHAR(45) NULL,PRIMARY KEY (`kd_mk`));
```

```
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK001','Algoritma dan Pemrograman',3);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK002','Prsktikum Algoritma dn Pemrograman',1);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK003','Teknologi Basis Data',3);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK004','Praktikum Teknologi Basis Data',1);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK005','Pemrograman Dasar',3);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK006','Pemrograman Berorientasi Objek',3);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK007','Struktur Data',3);
INSERT INTO `` (`kd_mk`,`nama`,`sks`) VALUES ('MK008','Arsitektur Komputer',2);
```

	kd_mk	nama	sks
▶	MK001	Algoritma dan Pemrograman	3
	MK002	Prsktikum Algoritma dn Pemrograman	1
	MK003	Teknologi Basis Data	3
	MK004	Praktikum Teknologi Basis Data	1
	MK005	Pemrograman Dasar	3
	MK006	Pemrograman Berorientasi Objek	3
	MK007	Struktur Data	3
	MK008	Arsitektur Komputer	2

Buat tabel jadwal mengajar

```
CREATE TABLE `latihan5`.`jadwalmengajar` (`kd_mk` INT NOT NULL,`kd_ds` VARCHAR(45)
NULL,`hari` VARCHAR(45) NULL,`jam` VARCHAR(45) NULL, `ruang` VARCHAR(45) NULL, PRIMARY
KEY (`kd_mk`));
```

```
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK001','DS002','senin','10:00:00','102');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK002','DS002','senin','13:00:00','Lab.
01');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK003','DS001','selasa','8:00:00','201');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK004','DS001','rabu','10:00:00','Lab.
02');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK005','DS003','selasa','10:00:00','Lab.
01');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK006','DS004','kamis','9:00:00','Lab.
03');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK007','DS005','rabu','8:00:00','102');
INSERT INTO `` (`kd_mk`,`kd_ds`,`hari`,`jam`,`ruang`) VALUES ('MK008','DS005','kamis','13:00:00','201');
```

	kd_mk	kd_ds	hari	jam	ruang
▶	MK001	DS002	senin	10:00:00	102
	MK002	DS002	senin	13:00:00	Lab. 01
	MK003	DS001	selasa	8:00:00	201
	MK004	DS001	rabu	10:00:00	Lab. 02
	MK005	DS003	selasa	10:00:00	Lab. 01
	MK006	DS004	kamis	9:00:00	Lab. 03
	MK007	DS005	rabu	8:00:00	102
	MK008	DS005	kamis	13:00:00	201

Buat tabel krs mahasiswa

```
CREATE TABLE `latihan5`.`krsmahasiswa` (`nim` INT NOT NULL,`kd_mk` VARCHAR(45) NULL,`kd_ds` VARCHAR(45) NULL, `semester` VARCHAR(45) NULL,`nilai` VARCHAR(45) NULL,PRIMARY KEY
```

```
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK001','DS002',3,NULL);
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK002','DS002',1,NULL);
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK003','DS001',3,NULL);
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK004','DS001',3,NULL);
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK007','DS005',3,NULL);
INSERT INTO `` (`nim`,`kd_mk`,`kd_ds`,`semester`,`nilai`) VALUES (1823456,'MK008','DS006',3,NULL);
```

	nim	kd_mk	kd_ds	semester	nilai
▶	1823456	MK001	DS002	3	NULL
	1823456	MK002	DS002	1	NULL
	1823456	MK003	DS001	3	NULL
	1823456	MK004	DS001	3	NULL
	1823456	MK007	DS005	3	NULL
	1823456	MK008	DS006	3	NULL

Praktikum

- join tabel mahasiswa dan dosen

```
SELECT nim,mahasiswa.nama,jk, dosen.nama as pembimbing from mahasiswa
JOIN dosen on mahasiswa.kd_ds= dosen.kd_ds;
```

nim	nama	jk	pembimbing
1812345	Ari Santoso	L	Ario Talib
1923456	Amira Jarisa	P	Ratna Kumala
1956789	Dadi Martani	L	vika Prasetyo
1967890	Bayu Laksono	L	Ratna Kumala

4 rows in set (0.00 sec)

- Left join tabel mahasiswa dan dosen

```
SELECT nim,mahasiswa.nama,jk, dosen.nama as pembimbing from mahasiswa LEFT JOIN
dosen on mahasiswa.kd_ds= dosen.kd_ds;
```

nim	nama	jk	pembimbing
1812345	Ari Santoso	L	Ario Talib
1823456	Dina Marlina	P	NULL
1834567	Rahmat Hidayat	L	NULL
1845678	Jaka Sampurna	L	NULL
1856789	Tia Lestari	P	NULL
1867890	Anton Sinaga	L	NULL
1912345	Listia Nasiti	P	NULL
1923456	Amira Jarisa	P	Ratna Kumala
1934567	Laksana Mardito	L	NULL
1945678	Jura Marsina	P	NULL
1956789	Dadi Martani	L	vika Prasetyo
1967890	Bayu Laksono	L	Ratna Kumala

- Join tabel jadwalmengajar,dosen dan matakuliah

```
SELECT jadwalmengajar.kd_mk, matakuliah.nama,sks, dosen.nama as pengampu
from jadwalmengajar join dosen on jadwalmengajar.kd_ds=dosen.kd_ds JOIN
matakuliah on jadwalmengajar.kd_mk=matakuliah.kd_mk;
```

kd_mk	nama	sks	pengampu
MK004	Praktikum Teknologi Basis Data	1	Noval Arianto
MK003	Teknologi Basis Data	3	Noval Arianto
MK002	Prsktikum Algoritma dn Pemrograman	1	Ario Talib
MK001	Algoritma dan Pemrograman	3	Ario Talib
MK005	Pemrograman Dasar	3	Ayu Rahmadina
MK006	Pemrograman Berorientasi Objek	3	Ratna Kumala
MK008	Arsitektur Komputer	2	vika Prasetyo
MK007	Struktur Data	3	vika Prasetyo

8 rows in set (0.07 sec)

- Join tabel jadwalmengajar,dosen dan matakuliah

```
SELECT jadwalmengajar.kd_mk, matakuliah.nama,sks, dosen.nama as pengampu,hari, jam,ruang from jadwalmengajar join dosen on jadwalmengajar.kd_ds=dosen.kd_ds JOIN matakuliah on jadwalmengajar.kd_mk=matakuliah.kd_mk;
```

kd_mk	nama	sks	pengampu	hari	jam	ruang
MK004	Praktikum Teknologi Basis Data	1	Noval Arianto	rabu	10:00:00	Lab. 02
MK003	Teknologi Basis Data	3	Noval Arianto	selasa	8:00:00	201
MK002	Prsktikum Algoritma dn Pemrograman	1	Ario Talib	senin	13:00:00	Lab. 01
MK001	Algoritma dan Pemrograman	3	Ario Talib	senin	10:00:00	102
MK005	Pemrograman Dasar	3	Ayu Rahmadina	selasa	10:00:00	Lab. 01
MK006	Pemrograman Berorientasi Objek	3	Ratna Kumala	kamis	9:00:00	Lab. 03
MK008	Arsitektur Komputer	2	vika Prasetyo	kamis	13:00:00	201
MK007	Struktur Data	3	vika Prasetyo	rabu	8:00:00	102

8 rows in set (0.00 sec)

- Join tabel krsmahasiswa,mahasiswa,mata kuliah,dosen

```
SELECT mahasiswa.nim, mahasiswa.nama, dosen.nama as dosen_pa, matakuliah.nama as matakuliah, sks, dosen.nama as dosen_pengampu from krsmahasiswa JOIN dosen on krsmahasiswa.kd_ds=dosen.kd_ds JOIN mahasiswa on mahasiswa.nim=krsmahasiswa.nim JOIN matakuliah on matakuliah.kd_mk= krsmahasiswa.kd_mk;
```

nim	nama	dosen_pa	matakuliah	sks	dosen_pengampu
1812345	Ari Santoso	Ario Talib	Algoritma dan Pemrograman	3	Ario Talib
1812345	Ari Santoso	Ario Talib	Praktikum Algoritma dan Pemrograman	1	Ario Talib
NULL	NULL	NULL	Teknologi Basis Data	3	NULL
NULL	NULL	NULL	Praktikum Teknologi Basis Data	1	NULL
NULL	NULL	NULL	Pemrograman Dasar	3	NULL
NULL	NULL	NULL	Pemrograman Berorientasi Objek	3	NULL
1956789	Dadi Martani	vika Prasetyo	Struktur Data	3	vika Prasetyo
NULL	NULL	NULL	Arsitektur Komputer	2	NULL

8 rows in set (0.00 sec)