NAMA : Muhammad Fahrul Fahreza

NPM : 2141416 KELAS : SI – A

MATKUL : Database Implementation Semester 3

E. Tugas Praktikum

//tabel mahasiswa

```
INSERT INTO mahasiswa VALUES ("101","Arif","L","JI.Kenangan"), ("102","Budi","L","JI.Jombang"), ("103","Wati","P","JI.Surabaya"), ("104","Ika","P","JI.Jombang"), ("105","Tono","L","JI.Jakarta"), ("106","Iwan","L","JI.Bandung"), ("107","Sari","P","JI.Malang"); //tabel ambil_mk
INSERT INTO ambil_mk VALUES
```

INSERT INTO ambil_mk VALUES ("101","PTI447"), ("103","TIK333"), ("104","PTI333"), ("104","PTI777"), ("111","PTI123"), ("123","PTI999");

//tabel matakuliah

INSERT INTO matakuliah VALUES ("PTI447","Praktikum Basis Data","1","3"), ("TIK342","Praktikum Basis Data","1","3"), ("PTI333","Basis Data Terdistribusi","3","5"), ("TIK123","Jaringan Komputer","2","5"), ("TIK333","Sistem Operasi","3","5"), ("PTI123","Grafika Multimedia","3","5"), ("PTI777","Sistem Informasi","2","3");

//nomor 1 eksplisit

SELECT COUNT(DISTINCT mahasiswa.nim)

AS mahasiswa_ambil_matkul FROM mahasiswa INNER JOIN ambil_mk ON mahasiswa.nim = ambil_mk.nim;

mahasiswa ambil matkul

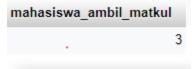
3

//nomor 1 implisit

SELECT COUNT(DISTINCT(nama))

AS mahasiswa_ambil_matkul FROM mahasiswa, ambil_mk

WHERE mahasiswa.nim = ambil mk.nim;



//nomor 2

SELECT jenis_kelamin, COUNT(jenis_kelamin)

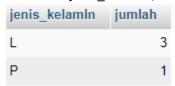
AS jumlah FROM mahasiswa

LEFT OUTER JOIN ambil_mk

ON mahasiswa.nim = ambil_mk.nim

WHERE ambil mk.nim IS NULL

GROUP BY jenis_kelamin;



//nomor 3 eksplisit

SELECT mahasiswa.nim, nama, matakuliah.kode_mk, nama_mk

FROM mahasiswa

INNER JOIN(matakuliah INNER JOIN ambil_mk ON matakuliah.kode_mk = ambil_mk.kode_mk) ON mahasiswa.nim = ambil_mk.nim;

nim	NAMA	kode_mk	nama_mk	
101	Arif	PTI447	Praktikum Basis Data	
103	Wati	TIK333	Sistem Operasi	
104	lka	PTI333	Basis Data Terdistribusi	
104	lka	PT1777	Sistem Informasi	

//nomor 3 implisit

SELECT mahasiswa.nim, nama, matakuliah.kode_mk, nama_mk

FROM mahasiswa, matakuliah, ambil_mk

WHERE matakuliah.kode_mk = ambil_mk.kode_mk

AND mahasiswa.nim = ambil_mk.nim;

nim	NAMA	kode_mk	nama_mk	
101	Arif	PTI447	Praktikum Basis Data	
103	Wati	TIK333	Sistem Operasi	
104	lka	PTI333	Basis Data Terdistribusi	
104	lka	PT1777	Sistem Informasi	

//nomor 4

SELECT mahasiswa.nim, nama, SUM(sks) AS jumlah_sks

FROM mahasiswa

INNER JOIN(matakuliah INNER JOIN ambil_mk ON matakuliah.kode_mk=ambil_mk.kode_mk)

ON mahasiswa.nim=ambil_mk.nim

GROUP BY nama

HAVING SUM(sks)>4 AND SUM(sks)<10;

nim	nama	jumlah_sks		
104	lka	5		

//nomor 5

SELECT matakuliah.kode_mk, nama_mk, sks, semester

FROM matakuliah

LEFT OUTER JOIN(mahasiswa LEFT OUTER JOIN ambil_mk ON mahasiswa.nim=ambil_mk.nim)

ON matakuliah.kode_mk=ambil_mk.kode_mk

WHERE mahasiswa.nim IS NULL;

nama_mk	sks	semester
Grafika Multimedia	3	5
Jaringan Komputer	2	5
Praktikum Basis Data	1	3