

## PRAKTIKUM 6

Mata Kuliah: Sistem basis data

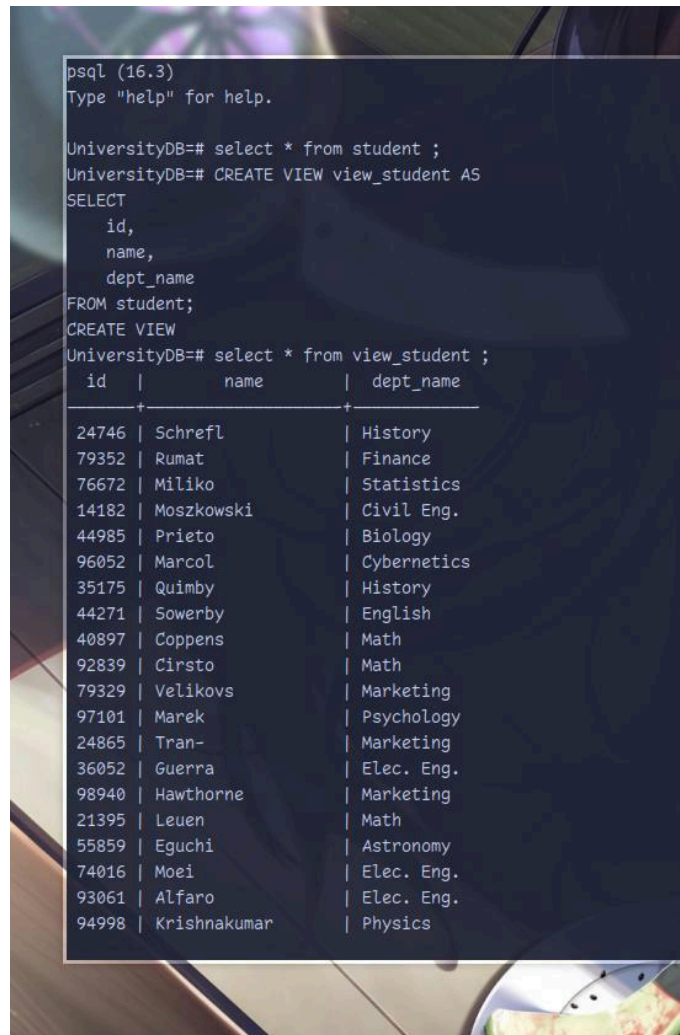
Dosen: Muhammad Rizki Pratama Suhernawan. S, S.Kom.

Nama: Rifqi Fadil Fahrial

NIM: 1222646

### 1. Buat view dengan nama view\_student untuk menampilkan id, nama, departemen mahasiswa tanpa jumlah sks

```
CREATE VIEW view_student AS
SELECT
    id,
    name,
    dept_name
FROM student;
```



```
psql (16.3)
Type "help" for help.

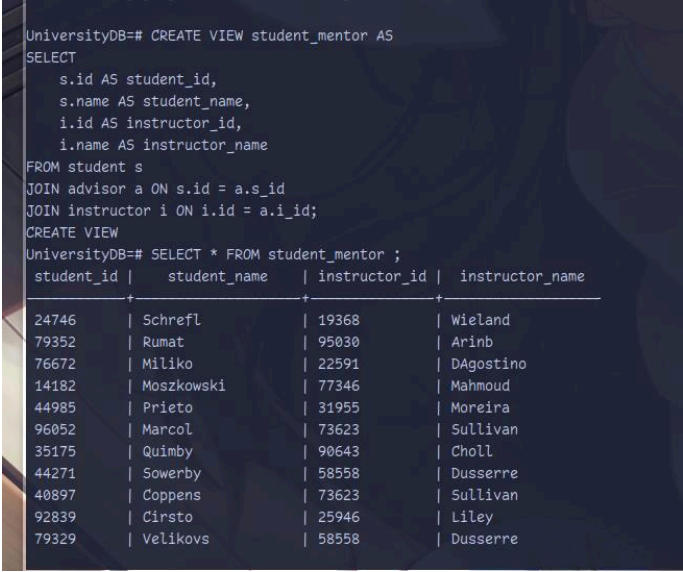
UniversityDB=# select * from student ;
UniversityDB=# CREATE VIEW view_student AS
SELECT
    id,
    name,
    dept_name
FROM student;
CREATE VIEW
UniversityDB=# select * from view_student ;
```

id	name	dept_name
24746	Schrefl	History
79352	Rumat	Finance
76672	Miliko	Statistics
14182	Moszkowski	Civil Eng.
44985	Prieto	Biology
96052	Marcol	Cybernetics
35175	Quimby	History
44271	Sowerby	English
40897	Coppens	Math
92839	Cirsto	Math
79329	Velikovs	Marketing
97101	Marek	Psychology
24865	Tran-	Marketing
36052	Guerra	Elec. Eng.
98940	Hawthorne	Marketing
21395	Leuen	Math
55859	Eguchi	Astronomy
74016	Moei	Elec. Eng.
93061	Alfaro	Elec. Eng.
94998	Krishnakumar	Physics

Figure 1: Screenshot Hasil Query

## 2. Buat view dengan nama student\_mentor untuk menampilkan id siswa, nama siswa, dengan id instruktur, nama instruktur

```
CREATE VIEW student_mentor AS
SELECT
    s.id AS student_id,
    s.name AS student_name,
    i.id AS instructor_id,
    i.name AS instructor_name
FROM student s
JOIN advisor a ON s.id = a.s_id
JOIN instructor i ON i.id = a.i_id;
```



```
UniversityDB=# CREATE VIEW student_mentor AS
SELECT
    s.id AS student_id,
    s.name AS student_name,
    i.id AS instructor_id,
    i.name AS instructor_name
FROM student s
JOIN advisor a ON s.id = a.s_id
JOIN instructor i ON i.id = a.i_id;
CREATE VIEW
UniversityDB=# SELECT * FROM student_mentor ;
student_id | student_name | instructor_id | instructor_name
-----+-----+-----+-----
24746      | Schrefl      | 19368         | Wieland
79352      | Rumat        | 95030         | Arinb
76672      | Miliko       | 22591         | DAgostino
14182      | Moszkowski   | 77346         | Mahmoud
44985      | Prieto       | 31955         | Moreira
96052      | Marcol       | 73623         | Sullivan
35175      | Quimby       | 90643         | Choll
44271      | Sowerby      | 58558         | Dusserre
40897      | Coppens      | 73623         | Sullivan
92839      | Cirsto       | 25946         | Liley
79329      | Velikovs     | 58558         | Dusserre
```

Figure 2: Screenshot Hasil Query

## 3. Buat view dengan nama student\_classes untuk menampilkan id mata kuliah, nama mata kuliah, semester, tahun, gedung, nomor ruangan, nilai, dari semua mata kuliah yang pernah diambil oleh mahasiswa dengan nama “Patrick”

```
CREATE VIEW student_classes AS
SELECT
    c.course_id,
    c.title AS course_name,
    t.semester,
    t.year,
    s.building,
    s.room_number,
    t.grade
FROM student st
JOIN takes t ON st.id = t.id
JOIN course c ON t.course_id = c.course_id
JOIN section s ON t.course_id = s.course_id
    AND t.sec_id = s.sec_id
    AND t.semester = s.semester
```

```

AND t.year = s.year
WHERE st.name = 'Patrick';

```

```

UniversityDB=# CREATE VIEW student_classes AS
SELECT
  c.course_id,
  c.title AS course_name,
  t.semester,
  t.year,
  s.building,
  s.room_number,
  t.grade
FROM student st
JOIN takes t ON st.id = t.id
JOIN course c ON t.course_id = c.course_id
JOIN section s ON t.course_id = s.course_id
  AND t.sec_id = s.sec_id
  AND t.semester = s.semester
  AND t.year = s.year
WHERE st.name = 'Patrick';
CREATE VIEW
UniversityDB=# SELECT * FROM student_classes ;

```

course_id	course_name	semester	year	building	room_number	grade
242	Rock and Roll	Fall	2009	Fairchild	145	B+
793	Decision Support Systems	Spring	2002	Nassau	45	C
239	The Music of the Ramones	Fall	2006	Taylor	183	A+
561	The Music of Donovan	Fall	2006	Main	45	A
972	Greek Tragedy	Spring	2009	Taylor	183	B+
960	Tort Law	Fall	2006	Power	717	B
384	Music 2 New for your Instructor	Fall	2009	Lamberton	143	C+
468	Fractal Geometry	Fall	2007	Power	717	C
735	Greek Tragedy	Spring	2010	Taylor	183	B-
679	The Beatles	Spring	2010	Saucon	844	B-
559	Martian History	Fall	2002	Lamberton	134	C+

(11 rows)

Figure 3: Screenshot Hasil Query

**4. Buat transaction untuk memasukkan departmen baru dengan nama “Info. Sec.” di gedung “Lamberton”, dan instructor baru dengan nama “Yoko”, ID “99999”, departmen “Info. Sec.”, gaji “150000”**

```

BEGIN;
INSERT INTO department (dept_name, building, budget)
VALUES ('Info. Sec.', 'Lamberton', 100000);
INSERT INTO instructor (id, name, dept_name, salary)
VALUES ('99999', 'Yoko', 'Info. Sec.', 150000);
COMMIT;

```

```

UniversityDB=# BEGIN;
BEGIN
UniversityDB=# INSERT INTO department (dept_name, building, budget)
UniversityDB=# VALUES ('Info. Sec.', 'Lamberton', 100000);
INSERT 0 1
UniversityDB=# INSERT INTO instructor (id, name, dept_name, salary)
UniversityDB=# VALUES ('99999', 'Yoko', 'Info. Sec.', 150000);
INSERT 0 1
UniversityDB=# SELECT * FROM department WHERE dept_name = 'Info. Sec.';

```

dept_name	building	budget
Info. Sec.	Lamberton	100000.00

(1 row)

```

UniversityDB=# SELECT * FROM instructor WHERE id = '99999';

```

id	name	dept_name	salary
99999	Yoko	Info. Sec.	150000.00

(1 row)

```

UniversityDB=# COMMIT;
COMMIT
UniversityDB=# SELECT * FROM instructor WHERE id = '99999';

```

id	name	dept_name	salary
99999	Yoko	Info. Sec.	150000.00

(1 row)

```

UniversityDB=# SELECT * FROM department WHERE dept_name = 'Info. Sec.';

```

dept_name	building	budget
Info. Sec.	Lamberton	100000.00

(1 row)

Figure 4: Screenshot Hasil Query