

**LAPORAN TUTORIAL LAB 2
BASIS DATA**



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DEPOK
2022/2023**

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

Latihan 1

1. [SQL] Jalankan SQL Query pada Contoh 1 hingga Contoh 26 di atas dan cantumkan hasilnya pada laporan.

1.

```
Output
eduardus.tjitrahardja.silwanop> SELECT nama
                                FROM DOKTER
                                WHERE id_dokter = 'D004'
[2022-11-01 11:35:27] 1 row retrieved starting from 1 in
```

nama
1 Ronda Hargitt

2.

3.

```
Output
eduardus.tjitrahardja.silwanop> SELECT nama, jenis, kapasitas
                                FROM KAMAR
                                ORDER BY harga
[2022-11-01 13:23:39] 45 rows retrieved starting from 1 in 32 ms
```

nama	jenis	kapasitas
1 Merpati 1	Kelas 3	6
2 Merpati 2	Kelas 3	6
3 Merpati 3	Kelas 3	6
4 Merpati 4	Kelas 3	6
5 Merpati 5	Kelas 3	6
6 Jalak 1	Kelas 2	4
7 Jalak 2	Kelas 2	4
8 Jalak 3	Kelas 2	4
9 Jalak 4	Kelas 2	4
10 Jalak 5	Kelas 2	4
11 Murai 1	Kelas 1	2
12 Murai 2	Kelas 1	2
13 Murai 3	Kelas 1	2
14 Murai 4	Kelas 1	2
15 Murai 5	Kelas 1	2
16 Merak 1	VIP B	1
17 Merak 2	VIP B	1
18 Merak 3	VIP B	1
19 Merak 4	VIP B	1
20 Merak 5	VIP B	1
21 Merak 6	VIP B	1
22 Merak 7	VIP B	1
23 Merak 8	VIP B	1
24 Merak 9	VIP B	1
25 Merak 10	VIP B	1
26 Merak 11	VIP B	1
27 Merak 12	VIP B	1
28 Merak 13	VIP B	1
29 Merak 14	VIP B	1
30 Merak 15	VIP B	1

a.

```
Output
eduardus.tjitrahardja.silwanop> SELECT *
                                FROM KAMAR
                                WHERE (kapasitas >= 2)
                                AND (kapasitas <= 4)
[2022-11-01 13:22:22] 10 rows retrieved starting from 1 in 315 ms
```

id_kamar	nama	jenis	kapasitas	harga	
1	KA06	Jalak 1	Kelas 2	4	300000
2	KA07	Jalak 2	Kelas 2	4	300000
3	KA08	Jalak 3	Kelas 2	4	300000
4	KA09	Jalak 4	Kelas 2	4	300000
5	KA10	Jalak 5	Kelas 2	4	300000
6	KA11	Murai 1	Kelas 1	2	700000
7	KA12	Murai 2	Kelas 1	2	700000
8	KA13	Murai 3	Kelas 1	2	700000
9	KA14	Murai 4	Kelas 1	2	700000
10	KA15	Murai 5	Kelas 1	2	700000

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

Output

```

[2022-11-01 13:22:38] SELECT *
FROM KAMAR
WHERE (kapasitas BETWEEN 2 AND 4)
[2022-11-01 13:22:38] 10 rows retrieved starting from 1 in 50 ms

```

id_kamar	nama	jenis	kapasitas	harga
KA06	Jalak 1	Kelas 2	4	300000
KA07	Jalak 2	Kelas 2	4	300000
KA08	Jalak 3	Kelas 2	4	300000
KA09	Jalak 4	Kelas 2	4	300000
KA10	Jalak 5	Kelas 2	4	300000
KA11	Murai 1	Kelas 1	2	700000
KA12	Murai 2	Kelas 1	2	700000
KA13	Murai 3	Kelas 1	2	700000
KA14	Murai 4	Kelas 1	2	700000
KA15	Murai 5	Kelas 1	2	700000

b.

Output

```

[2022-11-01 11:38:41] SELECT nama, email
FROM PERAWAT
WHERE nama LIKE 'Karen%'
[2022-11-01 11:38:41] 1 row retrieved starting from 1 in 304 ms (e

```

nama	email
Karen Cotillard	kcotillardk@omniture.com

4.

Output

```

[2022-11-01 13:21:57] (SELECT *
FROM DOKTER
WHERE spesialisasi = 'anak')
UNION
(SELECT *
FROM DOKTER
WHERE spesialisasi = 'bedah')
[2022-11-01 13:21:57] 14 rows retrieved starting from 1 in 62 ms

```

id_dokter	nama	no_telp	email	spesialisasi
D008	Den Stollsteimer	85054750630	dstollsteimer7@myspace.com	anak
D009	Jenda Chaudret	87860070111	jchaudret8@example.com	anak
D010	Moreen Hebblethwaite	83109586118	mhebblethwaite9@buzzfeed.com	anak
D011	Idalia Caughte	88041581978	icaughte@samsung.com	anak
D012	Darbie Howle	84548778195	dhowle@gzimbio.com	anak
D013	Heade Munn	85430172820	mmunn@si.edu	anak
D014	Josephine Schneider	84551802662	jschneider@qum.edu	anak
D029	Devlin Earney	81003195082	dearney@sbwire.com	bedah
D030	Carl Adelsberg	87917206718	cadelsberg@networksolutions.com	bedah
D031	Gearard Stapells	85738280407	gstapells@hc360.com	bedah
D032	Cassandra Noddles	81220215324	cnoddles@edell.com	bedah
D033	Genieve Guillotin	81315397179	gguillotin@theatlantic.com	bedah
D034	Tiena Klimex	89104117514	tklimex@gccn.ne.jp	bedah
D035	Garry Aspinell	89869528031	gaspinell@gargocollective.com	bedah

5.

Output

```

[2022-11-01 11:38:18] SELECT *
FROM KAMAR
WHERE (kapasitas BETWEEN 2 AND 4)
[2022-11-01 11:38:18] 10 rows retrieved starting from 1 in 434 ms
[2022-11-01 11:38:41] SELECT nama, email
FROM PERAWAT
WHERE nama LIKE 'Karen%'
[2022-11-01 11:38:41] 1 row retrieved starting from 1 in 304 ms (e
[2022-11-01 11:39:05] (SELECT *
FROM DOKTER
WHERE spesialisasi = 'anak')
UNION
(SELECT *
FROM DOKTER
WHERE spesialisasi = 'bedah')
[2022-11-01 11:39:05] 14 rows retrieved starting from 1 in 398 ms

```

id_dokter	nama	no_telp	email	spesialisasi
D008	Den Stollsteimer	85054750630	dstollsteimer7@myspace.com	anak
D009	Jenda Chaudret	87860070111	jchaudret8@example.com	anak
D010	Moreen Hebblethwaite	83109586118	mhebblethwaite9@buzzfeed.com	anak
D011	Idalia Caughte	88041581978	icaughte@samsung.com	anak
D012	Darbie Howle	84548778195	dhowle@gzimbio.com	anak
D013	Heade Munn	85430172820	mmunn@si.edu	anak
D014	Josephine Schneider	84551802662	jschneider@qum.edu	anak
D029	Devlin Earney	81003195082	dearney@sbwire.com	bedah
D030	Carl Adelsberg	87917206718	cadelsberg@networksolutions.com	bedah
D031	Gearard Stapells	85738280407	gstapells@hc360.com	bedah
D032	Cassandra Noddles	81220215324	cnoddles@edell.com	bedah
D033	Genieve Guillotin	81315397179	gguillotin@theatlantic.com	bedah
D034	Tiena Klimex	89104117514	tklimex@gccn.ne.jp	bedah
D035	Garry Aspinell	89869528031	gaspinell@gargocollective.com	bedah

6.

Output

```

[2022-11-01 11:39:05] 14 rows retrieved starting from 1 in 398 ms
[2022-11-01 11:39:05] (SELECT *
FROM DOKTER
WHERE nama LIKE 'C%')
INTERSECT
(SELECT *
FROM DOKTER
WHERE spesialisasi = 'bedah')
[2022-11-01 11:39:37] 2 rows retrieved starting from 1 in 355 ms

```

id_dokter	nama	no_telp	email	spesialisasi
D030	Carl Adelsberg	87917206718	cadelsberg@networksolutions.com	bedah
D032	Cassandra Noddles	81220215324	cnoddles@edell.com	bedah

7.

Output

```

[2022-11-01 11:39:37] 2 rows retrieved starting from 1 in 355 ms
[2022-11-01 11:40:08] (SELECT *
FROM DOKTER
WHERE nama LIKE 'C%')
EXCEPT
(SELECT *
FROM DOKTER
WHERE spesialisasi = 'bedah')
[2022-11-01 11:40:08] 1 row retrieved starting from 1 in 164 ms (e

```

id_dokter	nama	no_telp	email	spesialisasi
D020	Candy Arzinger	84319934032	carzingerj@abc.net.au	saraf

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

8.

Output

```
eduardus.tjitrahardjo.siwana> SELECT nama
                                FROM PASIEN
                                WHERE EXTRACT(DECADE FROM tgl_lahir) = '199'
```

[2022-11-01 13:21:01] 12 rows retrieved starting from 1 in 59 ms (execution: 19 ms, fetching: 40 ms)

nama
1 Padraic De Francisci
2 Friedrich Pina
3 Sibella Raddin
4 Virgil Clutterbuck
5 Hamlen Ryles
6 Andrew Ginnell
7 Meade Redington
8 Maitilde Cundey
9 Judy Phillip
10 Genna Mechem
11 Elena Badgers
12 Bobby Elner

Output

```
[2022-11-01 11:39:37] 2 rows retrieved starting from 1 in 155 ms (execution: 155 ms, fetching: 155 ms)
eduardus.tjitrahardjo.siwana> (SELECT *
                                FROM DOKTER
                                WHERE nama LIKE 'C%')
EXCEPT
(SELECT *
 FROM DOKTER
 WHERE spesialisasi = 'bedah')
```

[2022-11-01 11:40:08] 1 row retrieved starting from 1 in 144 ms (execution: 8 ms, fetching: 136 ms)

```
eduardus.tjitrahardjo.siwana> SELECT nama
                                FROM PASIEN
                                WHERE EXTRACT(DECADE FROM tgl_lahir) = '199'
```

[2022-11-01 11:40:33] 12 rows retrieved starting from 1 in 244 ms (execution: 244 ms, fetching: 244 ms)

nama
1 Padraic De Francisci
2 Friedrich Pina
3 Sibella Raddin
4 Virgil Clutterbuck
5 Hamlen Ryles
6 Andrew Ginnell
7 Meade Redington
8 Maitilde Cundey
9 Judy Phillip
10 Genna Mechem
11 Elena Badgers
12 Bobby Elner

9.

Output

```
WHERE EXTRACT(DECADE FROM tgl_lahir) = '199'
[2022-11-01 11:40:33] 12 rows retrieved starting from 1 in 244 ms (execution: 244 ms, fetching: 244 ms)
eduardus.tjitrahardjo.siwana> SELECT P.nama
                                FROM PASIEN P,
                                KAMAR K,
                                RAWAT_INAP R
                                WHERE R.id_pasien = P.id_pasien
                                AND R.id_kamar = K.id_kamar
                                AND K.nama = 'Merak 1'
```

[2022-11-01 11:41:06] 0 rows retrieved in 114 ms (execution: 60 ms, fetching: 54 ms)

nama

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



10.

```
[2022-11-01 11:41:06] 0 rows retrieved in 114 ms (execution: 60 ms)
eduardus.tjitrahardja.siwanop> SELECT *
                                FROM PERAWAT
                                CROSS JOIN SHIFT_PERAWAT
```

	perawat_id_perawat	nama	no_telp	email	jenis_kelamin	id_shift_perawat	shift_perawat_id_perawat	id_ruang_rmp	waktu_masuk	waktu_keluar
1	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP01	PE02	R123	2021-12-07 08:00:00.000000	2021-12-07 12:00:00.000000
2	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP02	PE03	R124	2021-02-02 08:00:00.000000	2021-02-02 12:00:00.000000
3	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP03	PE39	R149	2020-09-11 08:00:00.000000	2020-09-11 12:00:00.000000
4	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP04	PE27	R142	2022-06-29 08:00:00.000000	2022-06-29 12:00:00.000000
5	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP05	PE39	R140	2020-12-03 08:00:00.000000	2020-12-03 12:00:00.000000
6	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP06	PE34	R136	2021-09-04 08:00:00.000000	2021-09-04 12:00:00.000000
7	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP07	PE31	R105	2021-04-29 08:00:00.000000	2021-04-29 12:00:00.000000
8	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP08	PE34	R101	2022-08-13 08:00:00.000000	2022-08-13 12:00:00.000000
9	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP09	PE47	R109	2021-04-29 12:00:00.000000	2021-04-29 16:00:00.000000
10	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP10	PE34	R124	2020-02-07 08:00:00.000000	2020-02-07 12:00:00.000000
11	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP11	PE41	R115	2020-04-27 08:00:00.000000	2020-04-27 12:00:00.000000
12	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP12	PE15	R104	2020-11-13 08:00:00.000000	2020-11-13 12:00:00.000000
13	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP13	PE30	R101	2022-06-13 12:00:00.000000	2022-06-14 00:00:00.000000
14	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP14	PE23	R120	2020-02-21 08:00:00.000000	2020-02-21 12:00:00.000000
15	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP15	PE40	R116	2022-02-28 08:00:00.000000	2022-02-28 12:00:00.000000
16	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP16	PE20	R122	2020-10-18 08:00:00.000000	2020-10-18 12:00:00.000000
17	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP17	PE27	R113	2022-01-20 08:00:00.000000	2022-01-20 12:00:00.000000
18	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP18	PE30	R124	2022-02-28 08:00:00.000000	2022-02-28 12:00:00.000000
19	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP19	PE30	R145	2022-02-28 08:00:00.000000	2022-02-28 12:00:00.000000
20	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP20	PE20	R127	2021-01-14 08:00:00.000000	2021-01-14 12:00:00.000000
21	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP21	PE33	R130	2020-03-02 08:00:00.000000	2020-03-02 12:00:00.000000
22	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP22	PE24	R124	2022-02-28 12:00:00.000000	2022-02-28 16:00:00.000000
23	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP23	PE05	R118	2020-12-03 12:00:00.000000	2020-12-03 16:00:00.000000
24	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP24	PE34	R136	2022-09-04 12:00:00.000000	2022-09-07 00:00:00.000000
25	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP25	PE13	R131	2021-08-13 08:00:00.000000	2021-08-13 12:00:00.000000
26	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP26	PE13	R114	2022-02-07 08:00:00.000000	2022-02-07 12:00:00.000000
27	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP27	PE19	R129	2021-12-28 08:00:00.000000	2021-12-28 12:00:00.000000
28	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP28	PE03	R127	2021-01-14 12:00:00.000000	2021-01-17 00:00:00.000000
29	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP29	PE30	R120	2020-11-30 08:00:00.000000	2020-11-30 12:00:00.000000
30	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP30	PE13	R114	2022-02-07 12:00:00.000000	2022-02-07 16:00:00.000000
31	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP31	PE13	R125	2022-01-03 08:00:00.000000	2022-01-03 12:00:00.000000
32	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP32	PE17	R137	2022-05-18 08:00:00.000000	2022-05-18 12:00:00.000000
33	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP33	PE02	R107	2021-08-01 08:00:00.000000	2021-08-01 12:00:00.000000
34	P001	Asa Mudastone	8607830435	asmudastone@businessinsider.com	L	SP34	PE22	R143	2021-12-04 08:00:00.000000	2021-12-04 12:00:00.000000

11.

```
[2022-11-01 13:00:27] completed in 16 ms
eduardus.tjitrahardja.siwanop> SELECT *
                                FROM PERAWAT P
                                JOIN SHIFT_PERAWAT S
                                ON P.id_perawat = S.id_perawat
```

	P.id_perawat	nama	no_telp	email	jenis_kelamin	id_shift_perawat	shift_perawat_id_perawat	id_ruang_rmp	waktu_masuk	waktu_keluar
1	P002	Erin George	8522780184	erogeorge@pwp.com	P	SP01	PE02	R123	2021-12-07 08:00:00.000000	2021-12-07 12:00:00.000000
2	P005	Erin Wiley	8687710404	ewiley@pwp.com	P	SP02	PE05	R124	2022-02-02 08:00:00.000000	2022-02-02 12:00:00.000000
3	P039	Neilson Crowley	8667770453	ncrowley@pwp.co.jp	L	SP03	PE39	R149	2020-09-11 08:00:00.000000	2020-09-11 12:00:00.000000
4	P027	Jeth Barlow	8552661761	jethbarlow@pwp.com	L	SP04	PE27	R142	2022-06-29 08:00:00.000000	2022-06-29 12:00:00.000000
5	P039	Neilson Crowley	8667770453	ncrowley@pwp.co.jp	L	SP05	PE39	R140	2020-12-03 08:00:00.000000	2020-12-03 12:00:00.000000
6	P004	Gavin Stewart	8214113140	gstewart@pwp.com	L	SP06	PE04	R136	2022-09-04 08:00:00.000000	2022-09-04 12:00:00.000000
7	P032	Kelcy Franchini	8469972729	kfranchini@pwp.co.uk	L	SP07	PE21	R120	2021-04-29 08:00:00.000000	2021-04-29 12:00:00.000000
8	P034	Shaughy Bernhardt	8485220884	sbernhardt@pwp.com	L	SP08	PE04	R124	2022-08-13 08:00:00.000000	2022-08-13 12:00:00.000000
9	P047	Andre Sandland	8580541304	asandland@pwp.com	L	SP09	PE47	R105	2021-04-29 12:00:00.000000	2021-04-29 16:00:00.000000
10	P034	Shaughy Bernhardt	8485220884	sbernhardt@pwp.com	L	SP10	PE34	R128	2020-04-09 08:00:00.000000	2020-04-09 12:00:00.000000
11	P042	Paul Adams	8201837842	padams@pwp.com	P	SP11	PE41	R115	2020-04-27 08:00:00.000000	2020-04-27 12:00:00.000000
12	P035	Brandon Sebring	8546789160	bsebring@pwp.com	L	SP12	PE15	R104	2020-11-13 08:00:00.000000	2020-11-13 12:00:00.000000
13	P035	Ellie Arnold	8748324219	earnold@pwp.com	P	SP13	PE30	R101	2022-06-13 12:00:00.000000	2022-06-14 00:00:00.000000
14	P028	Michelle Greger	8651336339	mgreger@pwp.com	L	SP14	PE28	R126	2020-03-22 08:00:00.000000	2020-03-22 12:00:00.000000
15	P044	Ezra Gelfert	8904502719	egelfert@pwp.com	L	SP15	PE44	R128	2022-02-08 08:00:00.000000	2022-02-08 12:00:00.000000
16	P030	Clarendelle Long	8113731620	clong@pwp.com	L	SP16	PE20	R122	2020-10-18 08:00:00.000000	2020-10-18 12:00:00.000000
17	P027	Jeth Barlow	8552661761	jethbarlow@pwp.com	L	SP17	PE27	R113	2022-01-20 08:00:00.000000	2022-01-20 12:00:00.000000
18	P047	Andre Sandland	8580541304	asandland@pwp.com	L	SP18	PE47	R124	2022-05-26 08:00:00.000000	2022-05-26 12:00:00.000000
19	P035	Ellie Arnold	8748324219	earnold@pwp.com	P	SP19	PE30	R125	2022-03-30 08:00:00.000000	2022-03-30 12:00:00.000000
20	P026	Willow De Croux	8517952141	wdecroux@pwp.com	L	SP20	PE26	R127	2021-01-10 08:00:00.000000	2021-01-10 12:00:00.000000
21	P033	Liette Rodolfo	8584941484	lrodolfo@pwp.com	P	SP21	PE33	R130	2020-03-02 08:00:00.000000	2020-03-02 12:00:00.000000
22	P024	Jandy Basingham	8895306808	jbasingham@pwp.com	L	SP22	PE24	R124	2022-05-26 12:00:00.000000	2022-05-27 00:00:00.000000
23	P005	Erin Wiley	8687710404	ewiley@pwp.com	P	SP23	PE08	R120	2020-12-03 12:00:00.000000	2020-12-03 16:00:00.000000
24	P034	Shaughy Bernhardt	8485220884	sbernhardt@pwp.com	L	SP24	PE34	R124	2022-08-13 12:00:00.000000	2022-08-13 16:00:00.000000
25	P033	Noreen Agostini	8209925889	nagostini@pwp.com	L	SP25	PE13	R131	2021-08-13 08:00:00.000000	2021-08-13 12:00:00.000000
26	P030	Jerrett Bussard	8740537909	jbussard@pwp.com	L	SP26	PE30	R120	2022-09-07 08:00:00.000000	2022-09-07 12:00:00.000000
27	P042	Osia Merriday	8477241361	omerriday@pwp.com	P	SP27	PE42	R129	2021-12-28 08:00:00.000000	2021-12-28 12:00:00.000000
28	P003	Jeanna Bartlow	8603780651	jbartlow@pwp.net	L	SP28	PE03	R127	2021-01-14 12:00:00.000000	2021-01-17 00:00:00.000000
29	P034	Temor Soling	8539478087	tsoling@pwp.com	L	SP29	PE34	R120	2020-11-30 08:00:00.000000	2020-11-30 12:00:00.000000
30	P033	Noreen Agostini	8209925889	nagostini@pwp.com	L	SP30	PE13	R124	2022-02-02 12:00:00.000000	2022-02-02 16:00:00.000000
31	P011	Maiz Riddich	8927617478	mriddich@pwp.co.uk	L	SP31	PE11	R125	2022-01-03 08:00:00.000000	2022-01-03 12:00:00.000000
32	P017	Sanderson Wong	8277916461	swong@pwp.com	P	SP32	PE17	R129	2022-05-18 08:00:00.000000	2022-05-18 12:00:00.000000
33	P002	Erin George	8522780184	erogeorge@pwp.com	P	SP33	PE02	R107	2021-08-01 08:00:00.000000	2021-08-01 12:00:00.000000
34	P022	Clea Elnis	8301743443	celnis@pwp.gov	L	SP34	PE22	R143	2021-12-04 08:00:00.000000	2021-12-04 12:00:00.000000

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



12.

```
[2022-11-01 13:05:25] 100 rows retrieved starting from 1 in 103 ms (execution: 47 ms, fe
eduardus.tjitrahardjo.siwanoip> SELECT *
FROM PERAWAT P
LEFT OUTER JOIN SHIFT_PERAWAT S
ON P.id_perawat = S.id_perawat
```

perawat_id	nama	no_ktp	email	jenis_kelamin	id_shift_perawat	id_perawat	id_shift_inap	waktu_mulai	waktu_selesai	shift_perawat
PE02	Erina Georgiou	85227801894	eragorini@yelp.com	P	SP01	PE02	R123	2021-12-07 00:00:00.000000	2021-12-07 12:00:00.000000	
PE08	Eren Wiley	86587180468	ewiley@gigay.com	P	SP02	PE08	R124	2022-02-02 00:00:00.000000	2022-02-02 12:00:00.000000	
PE39	Mellicent Crawley	89047721652	mcrawley12@google.co.jp	L	SP03	PE39	R148	2020-09-11 00:00:00.000000	2020-09-11 12:00:00.000000	
PE27	Jeth Barlow	85529041701	jbarlow@tynpic.com	P	SP04	PE27	R142	2022-04-29 00:00:00.000000	2022-04-29 12:00:00.000000	
PE34	Gaia Stewart	82111331165	gstewart@pki.com	L	SP05	PE34	R138	2020-12-03 00:00:00.000000	2020-12-03 12:00:00.000000	
PE21	Kelcy Fraschini	84697721652	kfraschini@google.it	L	SP06	PE21	R101	2021-04-29 00:00:00.000000	2021-04-29 12:00:00.000000	
PE34	Shaughn Bernadette	84852720894	sternadette@huffingtonpost.com	P	SP08	PE34	R136	2022-08-13 00:00:00.000000	2022-08-13 12:00:00.000000	
PE47	Andrei Santland	85005433094	asantland@xnet.com	L	SP09	PE47	R105	2021-04-29 12:00:00.000000	2021-04-29 00:00:00.000000	
PE34	Shaughn Bernadette	84852720894	sternadette@huffingtonpost.com	P	SP10	PE34	R128	2020-04-05 00:00:00.000000	2020-04-05 12:00:00.000000	
PE41	Dani Miran	81992590995	dmiran@icloud.com	P	SP11	PE41	R215	2020-04-27 00:00:00.000000	2020-04-27 12:00:00.000000	
PE15	Brannon Sebring	85647720165	bsebring@ustoday.com	L	SP12	PE15	R136	2020-11-13 00:00:00.000000	2020-11-13 12:00:00.000000	
PE15	Ella Arnoldi	87453242129	earnoldi@about.me	P	SP13	PE15	R201	2022-08-13 12:00:00.000000	2022-08-14 00:00:00.000000	
PE28	Mitchell Greger	86521338439	mgreger@chromengine.com	L	SP14	PE28	R126	2020-03-22 00:00:00.000000	2020-03-22 12:00:00.000000	
PE46	Gippy Sollefant	89545827319	gsollefant@theguardian.com	L	SP15	PE46	R136	2022-03-28 00:00:00.000000	2022-03-28 12:00:00.000000	
PE28	Claraelle Song	81173374328	csong@jglibo.com	L	SP16	PE28	R122	2020-10-18 00:00:00.000000	2020-10-18 12:00:00.000000	
PE27	Jeth Barlow	85529041701	jbarlow@tynpic.com	P	SP17	PE27	R133	2022-01-20 00:00:00.000000	2022-01-20 12:00:00.000000	
PE47	Andrei Santland	85005433094	asantland@xnet.com	L	SP18	PE47	R124	2022-05-26 00:00:00.000000	2022-05-26 12:00:00.000000	
PE15	Ella Arnoldi	87453242129	earnoldi@about.me	P	SP19	PE15	R145	2022-03-30 00:00:00.000000	2022-03-30 12:00:00.000000	
PE29	Willow De Cruce	85179317451	wde@bufffeed.com	L	SP20	PE29	R127	2021-01-16 00:00:00.000000	2021-01-16 12:00:00.000000	
PE33	Lizette Rodolico	85847943184	lrodolico@xnet.com	P	SP21	PE33	R130	2020-03-02 00:00:00.000000	2020-03-02 12:00:00.000000	
PE24	Jenny Basingham	88953059488	jbsingham@en.is	L	SP22	PE24	R124	2022-05-26 12:00:00.000000	2022-05-27 00:00:00.000000	
PE05	Eren Wiley	86587180468	ewiley@gigay.com	P	SP23	PE05	R118	2020-12-03 12:00:00.000000	2020-12-04 00:00:00.000000	
PE34	Shaughn Bernadette	84852720894	sternadette@huffingtonpost.com	P	SP24	PE34	R136	2022-04-26 12:00:00.000000	2022-04-27 00:00:00.000000	
PE13	Noreen Agostini	81992590995	negostini@about.com	P	SP25	PE13	R211	2021-08-13 00:00:00.000000	2021-08-13 12:00:00.000000	
PE39	Jarrett Bonpass	87455757595	jbonpass@tharwaste.com	L	SP26	PE39	R136	2022-09-07 00:00:00.000000	2022-09-07 12:00:00.000000	
PE42	Gasia Merriday	84572421361	gmerriday@gigay.org	P	SP27	PE42	R129	2021-12-28 00:00:00.000000	2021-12-28 12:00:00.000000	
PE03	Joanna Beallone	89638398853	jbeallone@furl.net	L	SP28	PE03	R127	2021-01-16 12:00:00.000000	2021-01-17 00:00:00.000000	
PE36	Teodor Schlag	81495678087	tschlag@xnet.com	P	SP29	PE36	R128	2020-11-30 00:00:00.000000	2020-11-30 12:00:00.000000	
PE12	Noreen Agostini	81992590995	negostini@about.com	P	SP30	PE12	R214	2022-02-02 12:00:00.000000	2022-02-03 00:00:00.000000	
PE11	Mair Riddish	89731617480	mriddish@google.co.uk	L	SP31	PE11	R125	2022-01-03 00:00:00.000000	2022-01-03 12:00:00.000000	
PE17	Sanderson Burg	83779914051	sburg@xnet.com	P	SP32	PE17	R137	2022-09-18 00:00:00.000000	2022-09-18 12:00:00.000000	
PE02	Erina Georgiou	85227801894	eragorini@yelp.com	P	SP33	PE02	R107	2021-08-01 00:00:00.000000	2021-08-01 12:00:00.000000	
PE22	Clea Eshin	83821743363	ceshin@frc.gov	L	SP34	PE22	R143	2021-12-04 00:00:00.000000	2021-12-04 12:00:00.000000	

13.

```
[2022-11-01 13:11:15] completed in 38 ms
eduardus.tjitrahardjo.siwanoip> SELECT *
FROM SHIFT_PERAWAT S
RIGHT OUTER JOIN PERAWAT P
ON P.id_perawat = S.id_perawat
```

id_shift_perawat	id_perawat	id_shift_inap	waktu_mulai	waktu_selesai	id_perawat	no_ktp	email	jenis_kelamin
SP01	PE02	R123	2021-12-07 00:00:00.000000	2021-12-07 12:00:00.000000	PE02	85227801894	eragorini@yelp.com	P
SP02	PE05	R114	2022-02-02 00:00:00.000000	2022-02-02 12:00:00.000000	PE05	86587180468	ewiley@gigay.com	P
SP03	PE39	R148	2020-09-11 00:00:00.000000	2020-09-11 12:00:00.000000	PE39	89047721652	mcrawley12@google.co.jp	L
SP04	PE27	R142	2022-04-29 00:00:00.000000	2022-04-29 12:00:00.000000	PE27	85529041701	jbarlow@tynpic.com	P
SP05	PE34	R138	2020-12-03 00:00:00.000000	2020-12-03 12:00:00.000000	PE34	82111331165	gstewart@pki.com	L
SP06	PE21	R101	2021-04-29 00:00:00.000000	2021-04-29 12:00:00.000000	PE21	84697721652	kfraschini@google.it	L
SP07	PE34	R136	2022-08-13 00:00:00.000000	2022-08-13 12:00:00.000000	PE34	84852720894	sternadette@huffingtonpost.com	P
SP08	PE47	R105	2021-04-29 12:00:00.000000	2021-04-29 00:00:00.000000	PE47	85005433094	asantland@xnet.com	L
SP09	PE34	R128	2020-04-05 00:00:00.000000	2020-04-05 12:00:00.000000	PE34	84852720894	sternadette@huffingtonpost.com	P
SP10	PE41	R215	2020-04-27 00:00:00.000000	2020-04-27 12:00:00.000000	PE41	81992590995	dmiran@icloud.com	P
SP11	PE15	R136	2020-11-13 00:00:00.000000	2020-11-13 12:00:00.000000	PE15	85647720165	bsebring@ustoday.com	L
SP12	PE15	R201	2022-08-13 12:00:00.000000	2022-08-14 00:00:00.000000	PE15	87453242129	earnoldi@about.me	P
SP13	PE28	R126	2020-03-22 00:00:00.000000	2020-03-22 12:00:00.000000	PE28	86521338439	mgreger@chromengine.com	L
SP14	PE46	R136	2022-03-28 00:00:00.000000	2022-03-28 12:00:00.000000	PE46	89545827319	gsollefant@theguardian.com	L
SP15	PE28	R122	2020-10-18 00:00:00.000000	2020-10-18 12:00:00.000000	PE28	81173374328	csong@jglibo.com	L
SP16	PE27	R133	2022-01-20 00:00:00.000000	2022-01-20 12:00:00.000000	PE27	85529041701	jbarlow@tynpic.com	P
SP17	PE47	R124	2022-05-26 00:00:00.000000	2022-05-26 12:00:00.000000	PE47	85005433094	asantland@xnet.com	L
SP18	PE15	R145	2022-03-30 00:00:00.000000	2022-03-30 12:00:00.000000	PE15	87453242129	earnoldi@about.me	P
SP19	PE29	R127	2021-01-16 00:00:00.000000	2021-01-16 12:00:00.000000	PE29	85179317451	wde@bufffeed.com	L
SP20	PE33	R130	2020-03-02 00:00:00.000000	2020-03-02 12:00:00.000000	PE33	85847943184	lrodolico@xnet.com	P
SP21	PE24	R124	2022-05-26 12:00:00.000000	2022-05-27 00:00:00.000000	PE24	88953059488	jbsingham@en.is	L
SP22	PE05	R118	2020-12-03 12:00:00.000000	2020-12-04 00:00:00.000000	PE05	86587180468	ewiley@gigay.com	P
SP23	PE34	R136	2022-04-26 12:00:00.000000	2022-04-27 00:00:00.000000	PE34	84852720894	sternadette@huffingtonpost.com	P
SP24	PE13	R211	2021-08-13 00:00:00.000000	2021-08-13 12:00:00.000000	PE13	81992590995	negostini@about.com	P
SP25	PE39	R136	2022-09-07 00:00:00.000000	2022-09-07 12:00:00.000000	PE39	87455757595	jbonpass@tharwaste.com	L
SP26	PE42	R129	2021-12-28 00:00:00.000000	2021-12-28 12:00:00.000000	PE42	84572421361	gmerriday@gigay.org	P
SP27	PE03	R127	2021-01-16 12:00:00.000000	2021-01-17 00:00:00.000000	PE03	89638398853	jbeallone@furl.net	L
SP28	PE36	R128	2020-11-30 00:00:00.000000	2020-11-30 12:00:00.000000	PE36	81495678087	tschlag@xnet.com	P
SP29	PE12	R124	2022-02-02 12:00:00.000000	2022-02-03 00:00:00.000000	PE12	81992590995	negostini@about.com	P
SP30	PE11	R125	2022-01-03 00:00:00.000000	2022-01-03 12:00:00.000000	PE11	89731617480	mriddish@google.co.uk	L
SP31	PE17	R137	2022-09-18 00:00:00.000000	2022-09-18 12:00:00.000000	PE17	83779914051	sburg@xnet.com	P
SP32	PE02	R107	2021-08-01 00:00:00.000000	2021-08-01 12:00:00.000000	PE02	85227801894	eragorini@yelp.com	P
SP34	PE22	R143	2021-12-04 00:00:00.000000	2021-12-04 12:00:00.000000	PE22	83821743363	ceshin@frc.gov	L

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



14.

```
[2022-11-01 13:11:15] 110 rows retrieved starting from 1 in 124 ms (execution: 73 ms)
eduardus.tjitrahardja.sivanop> SELECT *
                                FROM OBAT O
                                FULL OUTER JOIN PEMBERIAN_OBAT PO
                                ON O.id_obat = PO.id_obat
```

id_obat	nama	id_pemberian_obat	id_shift_perawat	id_obat	dosis
0801	calcitonin salmon	P040	SP32	0801	7 mg
0801	calcitonin salmon	P011	SP22	0801	53 mg
0802	Estazolam	P060	SP89	0802	54 mg
0802	Estazolam	P043	SP15	0802	50 mg
0802	Estazolam	P022	SP13	0802	43 mg
0802	Estazolam	P014	SP01	0802	70 mg
0803	ARNICA MONTANA - RHUS TOXICODENDRON - RUTA GRAVEOLENS	<null>	<null>	<null>	<null>
0804	ANTIPYRINE AND BENZOCAINE	P075	SP77	0804	86 mg
0804	ANTIPYRINE AND BENZOCAINE	P032	SP22	0804	45 mg
0805	Phenobarbital	P083	SP34	0805	66 mg
0805	Phenobarbital	P019	SP22	0805	20 mg
0806	levofloxacin	P073	SP42	0806	36 mg
0806	levofloxacin	P066	SP91	0806	68 mg
0806	levofloxacin	P007	SP78	0806	66 mg
0807	Albuterol Sulfate	P071	SP68	0807	36 mg
0808	RISPERIDONE	P0100	SP94	0808	60 mg
0808	RISPERIDONE	P067	SP62	0808	42 mg
0808	RISPERIDONE	P049	SP52	0808	45 mg
0808	RISPERIDONE	P036	SP91	0808	15 mg
0808	RISPERIDONE	P028	SP13	0808	94 mg
0809	Levothyroxine Sodium	P063	SP20	0809	20 mg
0810	calcipotriene 0.005% and betamethasone dipropionate 0.064%	P093	SP32	0810	25 mg
0810	calcipotriene 0.005% and betamethasone dipropionate 0.064%	P027	SP12	0810	5 mg
0811	sus scrofa small intestine mucosa lymph follicle	P009	SP01	0811	76 mg
0812	Benzalkonium Chloride	P086	SP64	0812	91 mg
0812	Benzalkonium Chloride	P081	SP55	0812	56 mg
0812	Benzalkonium Chloride	P065	SP29	0812	43 mg
0812	Benzalkonium Chloride	P058	SP03	0812	33 mg
0812	Benzalkonium Chloride	P010	SP98	0812	68 mg
0813	HYDROCODONE BITARTRATE AND ACETAMINOPHEN	P091	SP33	0813	98 mg
0813	HYDROCODONE BITARTRATE AND ACETAMINOPHEN	P003	SP57	0813	14 mg
0814	Natural Medicine	P088	SP80	0814	80 mg
0814	Natural Medicine	P042	SP05	0814	49 mg
0814	Natural Medicine	P020	SP88	0814	99 mg

15.

```
[2022-11-01 13:12:19] 107 rows retrieved starting from 1 in 67 ms (e
eduardus.tjitrahardja.sivanop> SELECT *
                                FROM PERAWAT
                                NATURAL JOIN SHIFT_PERAWAT
```

id_perawat	nama	no_telp	email	jenis_kelamin	id_shift_perawat	id_rumet_inap	waktu_mulai	waktu_akhir
PER01	Erina Georghinu	8527802894	egeorghinu@yelp.com	P	SP01	R123	2022-12-07 00:00:00.000000	2022-12-07 12:00:00.000000
PER05	Efren Wiley	8058716048	ewiley4@igsys.com	P	SP02	R134	2022-02-02 08:00:00.000000	2022-02-02 12:00:00.000000
PER39	Mellicent Crawley	89047721632	mcrawley1@google.co.jp	L	SP03	R149	2020-09-11 00:00:00.000000	2020-09-11 12:00:00.000000
PER27	Jeth Barlow	85229042701	jbarlow@tntipic.com	P	SP04	R142	2022-04-29 00:00:00.000000	2022-04-29 12:00:00.000000
PER39	Mellicent Crawley	89047721632	mcrawley1@google.co.jp	L	SP05	R110	2020-12-03 00:00:00.000000	2020-12-03 12:00:00.000000
PER04	Gennie Stewart	82141131165	gstewart3@eb.com	L	SP06	R136	2022-09-06 00:00:00.000000	2022-09-06 12:00:00.000000
PER31	Kelcy Fraschini	84059987329	kfraschini@google.it	L	SP07	R105	2021-04-29 00:00:00.000000	2021-04-29 12:00:00.000000
PER34	Shaughn Bernadotte	84852728894	sbernadotte@huffingtonpost.com	P	SP08	R101	2022-08-13 00:00:00.000000	2022-08-13 12:00:00.000000
PER47	Andrej Sandland	85005433694	asandland@usnews.com	L	SP09	R105	2021-04-29 12:00:00.000000	2021-04-30 00:00:00.000000
PER34	Shaughn Bernadotte	84852728894	sbernadotte@huffingtonpost.com	P	SP10	R128	2020-06-05 00:00:00.000000	2020-06-05 12:00:00.000000
PER41	Deil Mirams	81945179642	dmirams4@ired.com	P	SP11	R115	2022-04-27 00:00:00.000000	2020-04-27 12:00:00.000000
PER10	Draxton Sebring	85404798048	dsebring@outlook.com	L	SP12	R104	2020-11-13 00:00:00.000000	2020-11-23 12:00:00.000000
PER35	Ella Arndell	87433241219	earndell@about.me	P	SP13	R101	2022-08-13 12:00:00.000000	2022-08-14 00:00:00.000000
PER18	Mitchell Dregan	86521338439	mdregan@chicronengline.com	L	SP14	R136	2020-03-22 00:00:00.000000	2020-03-22 12:00:00.000000
PER46	Gipsy Gullefant	8945827319	ggullefant1@theguardian.com	L	SP15	R116	2022-03-28 00:00:00.000000	2022-03-28 12:00:00.000000
PER20	Clarebelle Song	8117374328	csong1@iglobo.com	L	SP16	R122	2020-10-18 00:00:00.000000	2020-10-18 12:00:00.000000
PER27	Jeth Barlow	85229041701	jbarlow@tntipic.com	P	SP17	R113	2022-01-20 00:00:00.000000	2022-01-20 12:00:00.000000
PER47	Andrej Sandland	85005433694	asandland@usnews.com	L	SP18	R124	2022-05-26 00:00:00.000000	2022-05-26 12:00:00.000000
PER36	Ella Arndell	87433241219	earndell@about.me	P	SP19	R145	2022-03-30 00:00:00.000000	2022-03-30 12:00:00.000000
PER26	Willow De Greco	85126912741	wdegreco@usfand.com	L	SP20	R127	2022-01-16 00:00:00.000000	2022-01-16 12:00:00.000000
PER33	Lizette Woodlice	80848741984	lwoodlice@usfand.com	P	SP21	R130	2020-03-02 00:00:00.000000	2020-03-02 12:00:00.000000
PER24	Jandy Bassingham	84953069088	jbassingham@comcast.net	L	SP22	R124	2022-05-26 12:00:00.000000	2022-05-27 00:00:00.000000
PER08	Efren Wiley	8058716048	ewiley4@igsys.com	P	SP23	R136	2022-12-03 12:00:00.000000	2022-12-04 00:00:00.000000
PER34	Shaughn Bernadotte	84852728894	sbernadotte@huffingtonpost.com	P	SP24	R136	2022-09-06 12:00:00.000000	2022-09-07 00:00:00.000000
PER13	Noreen Agostini	81599259095	nagostini@about.com	P	SP25	R131	2022-08-13 00:00:00.000000	2022-08-13 12:00:00.000000
PER30	Jarrett Bonpass	87495579595	jbonpass@shareasale.com	L	SP26	R136	2022-09-07 00:00:00.000000	2022-09-07 12:00:00.000000
PER42	Ussie Merriday	84972431361	umerriday@igsys.org	P	SP27	R129	2022-12-28 00:00:00.000000	2022-12-28 12:00:00.000000
PER03	Deane Badstone	80823391853	dbadstone2@urk.net	L	SP28	R127	2022-01-16 12:00:00.000000	2022-01-16 00:00:00.000000
PER36	Tendor Schleg	81485768007	tschleg@comcast.net	P	SP29	R120	2020-11-30 00:00:00.000000	2020-11-30 12:00:00.000000
PER13	Noreen Agostini	81599259095	nagostini@about.com	P	SP30	R114	2022-02-02 12:00:00.000000	2022-02-03 00:00:00.000000
PER11	Hair Ridlich	8976194780	hridlich@google.co.uk	L	SP31	R125	2022-01-03 00:00:00.000000	2022-01-03 12:00:00.000000
PER17	Sanderson Wurg	83770916651	swurg@about.com	P	SP32	R137	2022-05-18 00:00:00.000000	2022-05-18 12:00:00.000000
PER02	Erina Georghinu	8527802894	egeorghinu@yelp.com	P	SP33	R107	2022-08-01 00:00:00.000000	2022-08-01 12:00:00.000000

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

16.

Output

```
eduardus.tjitrahardja.siwonop> SELECT id_pasien
    FROM RAWAT_INAP
    WHERE tgl_keluar IS NOT NULL
[2022-11-01 13:14:42] 45 rows retrieved starting from 1 in 43 ms (execution: 43 ms, fetching: 0 ms)
```

id_pasien
1 PA11
2 PA29
3 PA02
4 PA47
5 PA44
6 PA33
7 PA07
8 PA34
9 PA12
10 PA48
11 PA34
12 PA22
13 PA14
14 PA44
15 PA08
16 PA09
17 PA43

17.

Output

```
eduardus.tjitrahardja.siwonop> SELECT id_pasien
    FROM RAWAT_INAP
    WHERE tgl_keluar IS NULL
[2022-11-01 13:15:00] 5 rows retrieved starting from 1 in 61 ms (execution: 61 ms, fetching: 0 ms)
```

id_pasien
1 PA43
2 PA22
3 PA19
4 PA25
5 PA32

18.

Output

```
eduardus.tjitrahardja.siwonop> SELECT O.nama
    FROM OBAT O
    WHERE O.id_obat IN (SELECT PO.id_obat
        FROM PEMBERIAN_OBAT PO,
        SHIFT_PERAWAT SP,
        PERAWAT P
        WHERE PO.id_shift_perawat = SP.id_shift_perawat
        AND SP.id_perawat = P.id_perawat
        AND P.nama = 'Mitchell Greger')
[2022-11-01 13:15:17] 5 rows retrieved starting from 1 in 36 ms (execution: 20 ms, fetching: 16 ms)
```

nama
1 Triclosan
2 Codeine Phosphate, Phenylephrine Hydrochloride, Pyrilamine Maleate
3 RISPRIIDONE
4 levofloxacin
5 Acetaminophen

19.

Output

```
eduardus.tjitrahardja.siwonop> SELECT P.id_perawat, P.nama
    FROM PERAWAT P
    WHERE NOT EXISTS(
        SELECT *
        FROM PEMBERIAN_OBAT PO,
        SHIFT_PERAWAT SP
        WHERE PO.id_shift_perawat = SP.id_shift_perawat
        AND SP.id_perawat = P.id_perawat
    )
[2022-11-01 13:15:38] 13 rows retrieved starting from 1 in 128 ms (execution: 111 ms, fetching: 17 ms)
```

id_perawat	nama
1 PE01	Asa Huddleston
2 PE04	Gannie Stewart
3 PE06	Talbot Dust
4 PE08	Constantine Hukin
5 PE16	Charyl Doorbar
6 PE18	Russell Prestedge
7 PE21	Karen Cotland
8 PE23	Dalis Rummings
9 PE29	Vonny Northway
10 PE32	Rafa Demare
11 PE37	Nobe Claye
12 PE48	Jeremias Crickmore
13 PE50	Bella Prall

20.

Output

```
eduardus.tjitrahardja.siwonop> SELECT MIN(harga)
    FROM KAMAR
[2022-11-01 13:15:55] 1 row retrieved starting from 1 in 1 ms (execution: 1 ms, fetching: 0 ms)
```

min
1 170000

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

21.

Output

```
eduardus.tjitrahardja.sivanap> SELECT MAX(harga)
                                FROM KAMAR
```

[2022-11-01 13:17:27] 1 row retrieved starting from 1 in

	max
1	3100000

22.

Output

```
eduardus.tjitrahardja.sivanap> SELECT COUNT(*)
                                FROM KAMAR
```

[2022-11-01 13:17:40] 1 row retrieved starting from 1 in

	count
1	45

23.

Output

```
eduardus.tjitrahardja.sivanap> SELECT SUM(kapasitas)
                                FROM KAMAR
```

[2022-11-01 13:18:20] 1 row retrieved starting from 1 in

	sum
1	90

24.

Output

```
eduardus.tjitrahardja.sivanap> SELECT AVG(harga)
                                FROM KAMAR
```

[2022-11-01 13:18:56] 1 row retrieved starting from 1 in

	avg
1	1196666.666666666666667

25.

a.

Output

```
eduardus.tjitrahardja.sivanap> SELECT jenis, SUM(kapasitas)
                                FROM KAMAR
                                GROUP BY jenis
```

[2022-11-01 13:19:16] 6 rows retrieved starting from 1 in

	jenis	sum
1	Kelas 1	10
2	VVIP	5
3	Kelas 2	20
4	VIP A	10
5	Kelas 3	30
6	VIP B	15

b.

Output

```
eduardus.tjitrahardja.sivanap> SELECT EXTRACT(YEAR FROM P.tgl_lahir) AS TAHUN, COUNT(*)
                                FROM PASIEN P
                                GROUP BY EXTRACT(YEAR FROM P.tgl_lahir)
```

[2022-11-01 13:19:57] 31 rows retrieved starting from 1 in 44 ms (execution: 26 ms, fetchi

	tahun	count
1	1979	4
2	1994	3
3	1968	1
4	1969	2
5	1966	2
6	1982	3
7	1960	2
8	1963	1
9	1999	1
10	1964	1
11	1995	2
12	1977	1
13	1974	1
14	1988	1
15	1993	1
16	1981	1
17	1964	1

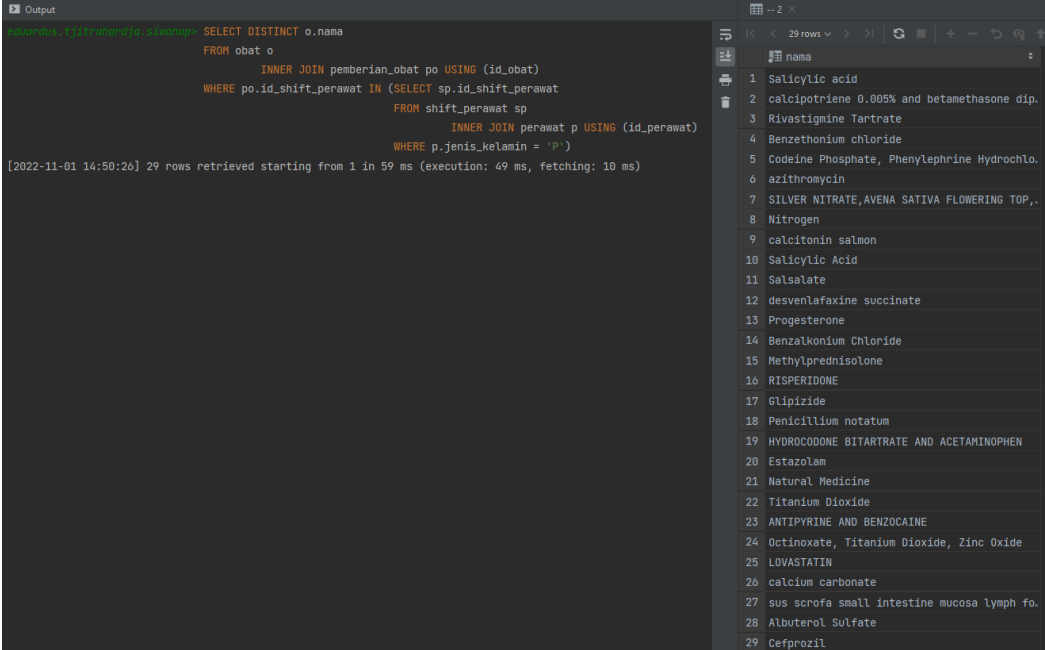
Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

26.

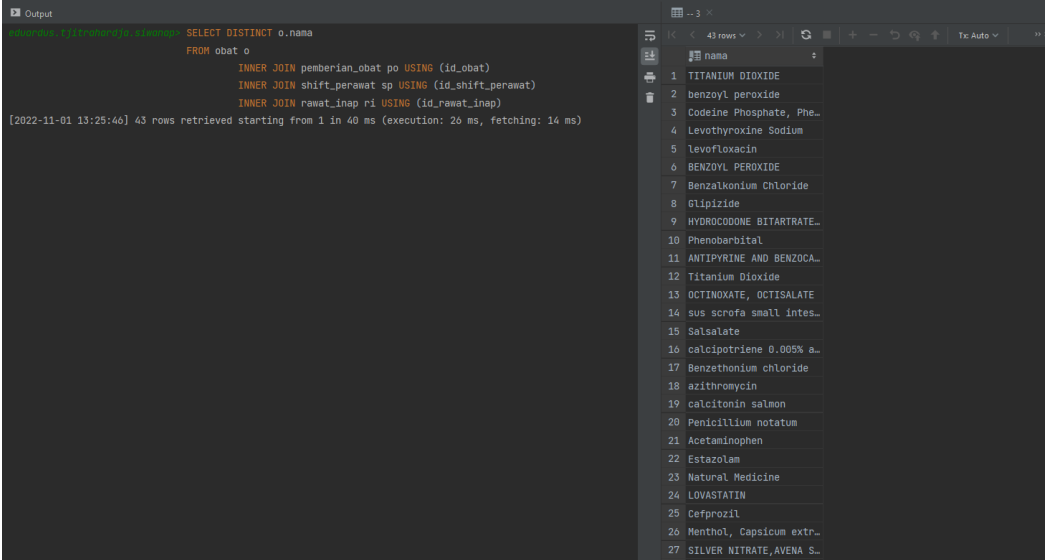
2. [SQL] Tampilkan nama obat yang telah diresepkan oleh perawat wanita dengan menggunakan keyword **IN**.



```
SELECT DISTINCT o.nama
FROM obat o
INNER JOIN pemberian_obat po USING (id_obat)
WHERE po.id_shift_perawat IN (SELECT sp.id_shift_perawat
FROM shift_perawat sp
INNER JOIN perawat p USING (id_perawat)
WHERE p.jenis_kelamin = 'P')
```

nama
1 Salicylic acid
2 calcipotriene 0.005% and betamethasone dip.
3 Rivastigmine Tartrate
4 Benzetonium chloride
5 Codeine Phosphate, Phenylephrine Hydrochlo.
6 azithromycin
7 SILVER NITRATE, AVENA SATIVA FLOWERING TOP..
8 Nitrogen
9 calcitonin salmon
10 Salicylic Acid
11 Salsalate
12 desvenlafaxine succinate
13 Progesterone
14 Benzalkonium Chloride
15 Methylprednisolone
16 RISPERIDONE
17 Glipizide
18 Penicillium notatum
19 HYDROCODONE BITARTRATE AND ACETAMINOPHEN
20 Estazolam
21 Natural Medicine
22 Titanium Dioxide
23 ANTIPYRINE AND BENZOCAINE
24 Octinoxate, Titanium Dioxide, Zinc Oxide
25 LOVASTATIN
26 calcium carbonate
27 sus scrofa small intestine mucosa lymph fo.
28 Albuterol Sulfate
29 Cefprozil

3. [SQL] Tampilkan nama UNIK obat yang **setidaknya** telah diberikan pada pasien.



```
SELECT DISTINCT o.nama
FROM obat o
INNER JOIN pemberian_obat po USING (id_obat)
INNER JOIN shift_perawat sp USING (id_shift_perawat)
INNER JOIN rawat_inap ri USING (id_rawat_inap)
```

nama
1 TITANIUM DIOXIDE
2 benzoyl peroxide
3 Codeine Phosphate, Phe..
4 Levothyroxine Sodium
5 levofloxacin
6 BENZOYL PEROXIDE
7 Benzalkonium Chloride
8 Glipizide
9 HYDROCODONE BITARTRATE..
10 Phenobarbital
11 ANTIPYRINE AND BENZOCA..
12 Titanium Dioxide
13 OCTINOXATE, OCTISALATE
14 sus scrofa small intes..
15 Salsalate
16 calcipotriene 0.005% a..
17 Benzetonium chloride
18 azithromycin
19 calcitonin salmon
20 Penicillium notatum
21 Acetaminophen
22 Estazolam
23 Natural Medicine
24 LOVASTATIN
25 Cefprozil
26 Menthol, Capsicum extr..
27 SILVER NITRATE, AVENA S..

4. [SQL] Tampilkan daftar dokter yang tidak pernah merawat pasien rawat inap.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

Output

```

--> postgresql (psql) > SELECT *
--> FROM dokter
--> WHERE id_dokter NOT IN (SELECT id_dokter
--> FROM dokter_rawat_inap)
[2022-11-01 13:20:13] 19 rows retrieved starting from 1 in 53 ms (execution: 33

```

id_dokter	nama	no_telp	email	spesialisasi
0005	Frederique Pruce	83447355115	fpruce4@nps.gov	penyakit dalam
0007	Ly Spellessy	87114027540	lspellessy@blogspot.com	penyakit dalam
0008	Den Stollsteiner	85054750630	dstollsteiner7@myspace..	anak
0010	Moreen Hebblethwaite	83109586118	mhebblethwaite9@buzzfee.	anak
0013	Meade Munn	85430172820	mmunn@si.edu	anak
0015	Rachael Redmire	81414872968	rredmire@vineo.com	saraf
0017	Stewart Filkov	81438198883	sfilkov@fastcompany.com	saraf
0018	Nero Vanyard	81684545781	nvanyard@technorati.co	saraf
0019	Shepperd Lichfield	84437097707	slichfield@tiny.cc	saraf
0021	Lazaro Morston	84529491412	lmorston@nymag.com	saraf
0024	Berty Normandale	83888032291	bnormandale@list-manag.	kandungan dan gir
0031	Gearard Stapells	85738286407	gstapells@ghc360.com	bedah
0032	Cassandre Noddles	81220215324	cnoddles@deill.com	bedah
0037	Lawry Galiford	89124483409	lgaliford@sfgate.com	kulit dan kelamin
0040	Tobias Trusse	81023710802	ttrusse13@sun.com	kulit dan kelamin
0041	Geoff Winthrop	87843866302	gwinthrop1@yelp.com	kulit dan kelamin
0043	Sigismund Stockbridge	84252661633	sstockbridge1@psu.edu	kulit dan kelamin
0048	Lari Jobbings	81309045282	ljobbings1@furl.net	mata
0050	Ulrich Denisevich	85685636571	udenisevich@symantec..	mata

5. [SQL] Tampilkan nama dokter dengan total jumlah pasien rawat inap yang telah ditugaskan kepada dokter tersebut diurutkan berdasarkan ascending alphabetical order (A-Z) dari namanya, tanpa peduli jika dokter tersebut memiliki pasien rawat inap atau tidak.

Output

```

--> postgresql (psql) > SELECT d.nama,
--> SUM(CASE WHEN dri.id_rawat_inap IS NOT NULL THEN 1 ELSE 0 END) AS jumlah_pasien_r
--> FROM dokter d
--> LEFT JOIN dokter_rawat_inap dri USING (id_dokter)
--> GROUP BY 1
--> ORDER BY 1
[2022-11-01 13:27:38] 50 rows retrieved starting from 1 in 58 ms (execution: 35 ms, fetching: 23 ms)

```

nama	jumlah_pasien_r
Adams Savage	1
Barty Leebeter	2
Berty Normandale	0
Bev Pieracci	1
Brantley Ludlem	2
Candy Arnsinger	1
Carl Adelsberg	2
Cassandre Noddles	0
Darbie Howle	1
Deana Gilthespy	2
Den Stollsteiner	0
Devlin Earney	1
Emery Brakespear	1
Fanechka Maryman	4
Frederique Pruce	0
Garry Aspinell	1
Gearard Stapells	0
Genvieve Guillotin	2
Geoff Winthrop	0
Gerianne Mardall	3
Halsey Ivashchenko	1
Idalia Caughte	1
Jacinta Mico	2

6. [SQL] Tampilkan jumlah pasien yang lahir pada setiap bulan. Anda disarankan menggunakan EXTRACT

Output

```

--> postgresql (psql) > SELECT EXTRACT(MONTH FROM tgl_lahir) AS bulan, nama
--> FROM pasien
--> ORDER BY 1, 2
[2022-11-01 13:28:39] 49 rows retrieved starting from 1 in 98 ms (execution: 83 ms, fetching: 15 ms)

```

bulan	nama
1	Henriette Renon
1	Stewart Mustard
3	Fielding Crone
4	Holt Rumbelow
5	Meade Redington
6	Barry Steljes
7	Cesar Witard
8	Elena Badgers
9	Genna Mechen
10	Lynette Cornwell
11	Sibella Raddin
12	Virgil Clutterbuck
13	Welsh Landeaux
14	Clarisse Pennuzzi
15	Maitilde Cundey
16	Morie Davisson
17	Orson Macdoffin
18	Tilly Wellwork
19	Ashlie Elloy
20	Bevin Carlino
21	Bobbye Elner
22	Donni O'Haire
23	Gilemette Gresswell

7. [SQL] Tampilkan **jenis kamar** dan **harga rata-rata** kamar untuk setiap jenis kamar.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

Output

```
eduardus.tjitrahardjo.siwana> SELECT jenis, AVG(harga) AS avg_harga
FROM kamar k
GROUP BY 1
```

[2022-11-01 13:29:12] 6 rows retrieved starting from 1 in 66 ms (execution: 46 ms, fetching: 20 ms)

jenis	avg_harga
1 Kelas 1	760000
2 VVIP	3100000
3 Kelas 2	360000
4 VIP A	1600000
5 Kelas 3	170000
6 VIP B	1100000

8. [SQL] Tampilkan **nama pasien**, **id kamar**, dan **nama dokter** yang bertugas untuk setiap pasien yang masih dirawat di rumah sakit.

Output

```
eduardus.tjitrahardjo.siwana> SELECT p.nama AS nama_pasien, ri.id_kamar, d.nama AS nama_dokter
FROM pasien p
INNER JOIN rawat_inap ri USING (id_pasien)
INNER JOIN dokter_rawat_inap dri USING (id_rawat_inap)
INNER JOIN dokter d USING (id_dokter)
WHERE ri.tgl_keluar IS NULL
```

[2022-11-01 13:29:58] 5 rows retrieved starting from 1 in 33 ms (execution: 17 ms, fetching: 16 ms)

nama_pasien	id_kamar	nama_dokter
1 Lee Dot	KA30	Gervieve Guillotin
2 Lee Dot	KA30	Brantley Luften
3 Hamlen Ryles	KA25	Lambert Wixey
4 Barry Steljes	KA36	Zebulon Blacklaw
5 Donni Ohaire	KA07	Darbie Howle

9. [SQL] Tampilkan **tanggal masuk** dan **tanggal keluar** setiap pasien yang namanya tidak mengandung huruf E (tidak case sensitive).

Output

```
eduardus.tjitrahardjo.siwana> SELECT ri.tgl_masuk, ri.tgl_keluar
FROM pasien p
INNER JOIN rawat_inap ri USING (id_pasien)
WHERE LOWER(p.nama) NOT LIKE '%e%'
```

[2022-11-01 13:30:15] 6 rows retrieved starting from 1 in 49 ms (execution: 33 ms, fetching: 16 ms)

tgl_masuk	tgl_keluar
1 2022-05-27	2022-05-31
2 2020-03-01	2020-03-22
3 2020-08-03	2020-08-29
4 2022-03-29	2022-04-04
5 2021-12-13	2021-12-31
6 2020-09-10	2020-09-17

10. [SQL] Tampilkan **nama** dan **nomor telepon** pasien yang tidak pernah menjadi pasien rawat inap.

Output

```
eduardus.tjitrahardjo.siwana> SELECT nama, no_telp
FROM pasien
WHERE id_pasien NOT IN (SELECT id_pasien
FROM rawat_inap)
```

[2022-11-01 13:33:12] 13 rows retrieved starting from 1 in 58 ms (execution: 43 ms, fetching: 15 ms)

nama	no_telp
1 Fielding Crone	85111343784
2 Lynette Conwell	89434813042
3 Zaccaria Dewsnap	84860192729
4 Friedrich Pina	82880371279
5 Sibella Raddin	81800084683
6 Ashlie Elloy	81039808440
7 Andrew Ginnell	81546125433
8 Garold Onslow	81141510588
9 Judy Phillip	81589924398
10 Genna Mechem	82730586822
11 Tilly Wallwork	85620409570
12 Haywood Randles	82242025651
13 Bobby Elner	86434766742

11. [SQL] Tampilkan daftar pasien yang pernah menjadi pasien rawat inap di kamar jenis VIP atau VVIP. Anda harus menggunakan keyword **UNION**.

```
eduardus.tjitrahardjo.siwana> SELECT *
FROM pasien
INNER JOIN rawat_inap ri USING (id_pasien)
INNER JOIN kamar k USING (id_kamar)
WHERE k.jenis LIKE 'VIP%'
UNION
SELECT *
FROM pasien
INNER JOIN rawat_inap ri USING (id_pasien)
INNER JOIN kamar k USING (id_kamar)
WHERE k.jenis = 'VVIP'
```

[2022-11-01 13:33:46] 32 rows retrieved starting from 1 in 79 ms (execution: 49 ms, fe

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



id_kamar	id_pasien	nama	alamat	no_telp	email	tgl_lahir	jenis_kelamin	id_rawat_inap	tgl_masuk	tgl_keluar	nama	jenis	kap
KA17	PA11	Padraic De Francisci	Jl. H Agus Salim 49...	0738709917	pde@alideshare.net	1994-04-03	P	R101	2022-08-12	2022-08-23	Herak 2	VIP B	
KA17	PA15	Welsh Landeaux	Jl. Kresat Jaya B1 E...	01239839793	wlandeaux18@google...	1974-03-03	L	R147	2021-12-10	2021-12-19	Herak 2	VIP B	
KA17	PA49	Morie Davison	Jl. Kuningan Brt 5d...	0892899829	mdavison1@icloud...	1979-04-17	P	R148	2021-08-11	2021-08-13	Herak 2	VIP B	
KA19	PA29	Silvestre Grasseval	Jl. Kase 123 Suban...	00224127943	sgresseval1@icloud...	1981-06-27	P	R117	2020-10-10	2020-11-27	Herak 4	VIP B	
KA19	PA31	Heade Redington	Jl. Sunan Muria 7 R...	03145220454	hredington@wikisp...	1992-02-15	L	R104	2021-05-01	2021-05-30	Herak 4	VIP B	
KA21	PA48	Tracey Varey	Jl. Bekasi Ter II 3d...	01307584054	tvarey1@urizonz.edu	1971-10-17	P	R111	2021-07-02	2021-07-06	Herak 6	VIP B	
KA22	PA36	Karel Stoppell	Jl. Batu Tulis 1d, B...	08872264445	kstoppell1@gtoloo...	1969-04-04	L	R126	2020-03-21	2020-03-23	Herak 7	VIP B	
KA23	PA28	Stewart Mustard	Jl. KH Masjin Ashar L...	08177679007	smustard@pnpb.com	1964-01-10	L	R125	2022-01-02	2022-01-20	Herak 8	VIP B	
KA24	PA44	Elena Badgers	Plaza Ciputat Mas R...	0273461377	ebadgers1@pelf.edu	1994-03-15	P	R105	2021-04-28	2021-04-30	Herak 9	VIP B	
KA24	PA44	Elena Badgers	Plaza Ciputat Mas R...	0273461377	ebadgers1@pelf.edu	1994-03-15	P	R115	2020-06-26	2020-06-18	Herak 9	VIP B	
KA25	PA23	Hamlen Ryles	Jl. Jono A Yoni 3d...	08078171905	hryles@postag.jp	1995-10-13	P	R143	2021-12-03	-null-	Herak 10	VIP B	
KA25	PA46	Win Pigford	Jl. Ruara Rary Ujung...	01394260350	wpigford1@quadtran...	1987-05-26	P	R154	2020-08-03	2020-08-29	Herak 10	VIP B	
KA26	PA47	Raddy Klazenga	Jl. Suryopranoto 2 K...	09925774888	rklazengal@live.com	1982-04-13	P	R104	2020-11-12	2020-11-16	Herak 11	VIP B	
KA29	PA05	Cesar Witard	Plaza City View, Bu...	03060150583	cwitard@ca.gov	1969-03-12	L	R136	2022-09-05	2022-09-13	Herak 14	VIP B	
KA38	PA02	Englebert Glassard	Jl. Pluit Raya No. ...	03613507057	eglassard1@omb.com	1972-08-09	L	R103	2021-03-15	2021-03-16	Herak 15	VIP B	
KA38	PA06	Jayne Clev	Jl. Rime Raya B1 D...	02731896705	jclever@pblj.jp	1982-08-18	L	R123	2021-12-06	2021-12-16	Herak 15	VIP B	
KA38	PA22	Lee Bot	Jl. Pembangunan II L...	09739464083	lbot1@etsy.com	2002-12-18	L	R129	2021-10-27	-null-	Herak 15	VIP B	
KA38	PA29	Bevin Carlino	Jl. Kelamban Brt III...	09722821357	bcarlino@pappal.com	1980-05-15	L	R102	2020-11-29	2020-12-16	Herak 15	VIP B	
KA31	PA49	Morie Davison	Jl. Kuningan Brt 5d...	0892899829	mdavison1@icloud...	1979-04-17	P	R120	2020-11-29	2020-12-11	Elang 1	VIP A	
KA32	PA22	Lee Bot	Jl. Pembangunan II L...	09739464083	lbot1@etsy.com	2002-12-18	L	R131	2021-08-12	2021-08-13	Elang 2	VIP A	
KA32	PA07	Rodney Di Biasio	Jl. Jatinegara Brt L...	06987105340	rdibiasio@amazon.de	1966-04-27	L	R107	2021-07-31	2021-08-12	Elang 3	VIP A	
KA35	PA30	Orson MacGiffin	Par Kecip 12, Dki ...	03721927052	omacgiffin1@marist...	1977-04-13	P	R146	2021-12-13	2021-12-31	Elang 5	VIP A	
KA35	PA14	Clarisse Pennu21	Jl. Kemaplan IV 7, ...	06440242850	cpennu21@qds.org	1963-04-24	P	R114	2022-01-01	2022-01-04	Elang 6	VIP A	
KA38	PA22	Bevin Carlino	Jl. Kelamban Brt III...	09722821357	bcarlino@pappal.com	1980-05-15	L	R144	2020-06-01	2020-06-14	Elang 6	VIP A	
KA38	PA32	Berry Strjos	Jl. Kramat Raya 14d ...	00178502828	bstrjos1@pccarel...	1984-03-28	L	R148	2021-12-15	-null-	Elang 6	VIP A	
KA38	PA01	Ray Ferrieri	Jl. Raya PMP, Dki 3a...	07647076022	rferrieri@ingtimes...	1960-07-29	L	R139	2020-12-23	2021-01-21	Elang 8	VIP A	
KA38	PA20	Charlot Haffadine	Jl. Mangga Dua Raya ...	01254022034	chaffadine1@ebay.com	1972-11-22	L	R119	2022-07-24	2022-08-02	Elang 8	VIP A	
KA38	PA34	Mattilde Condey	Jl. Melayu Besar 4d...	09473689365	mcondey@pura.com	1996-04-06	P	R108	2022-05-05	2020-05-13	Elang 8	VIP A	
KA40	PA27	Archibaldo Hanklyn	Jl. Kelamban Jaya II...	07948788158	ahanklyn1@pweb.com	1968-07-21	P	R124	2022-05-27	2022-05-31	Elang 10	VIP A	
KA40	PA29	Bevin Carlino	Jl. Kelamban Brt III...	09722821357	bcarlino@pappal.com	1980-05-15	L	R121	2020-12-25	2021-01-23	Elang 10	VIP A	
KA40	PA40	Yare Fildier	Jl. Gempoh 2d/27, B...	02334444360	yfeldier1@pmedisc...	1967-10-10	L	R141	2020-06-07	2022-06-27	Elang 10	VIP A	
KA42	PA42	Fiona Passmore	Jl. Tenggiri 2, Dki ...	01388212291	fpassmore1@pogy.org	1970-11-19	P	R127	2021-01-15	2021-02-12	Gandva 2	VIP	

12. [SQL] Tampilkan nama dan jenis kelamin perawat yang merawat semua pasien wanita.

Output	ASUMSI: query perawa...nis kelamin perempuan
<pre> SELECT p2.nama, p2.jenis_kelamin FROM perawat p2 INNER JOIN shift_perawat sp USING (id_perawat) INNER JOIN rawat_inap ri USING (id_rawat_inap) INNER JOIN pasien p USING (id_pasien) WHERE p.jenis_kelamin = 'P'; GROUP BY 1, 2 HAVING COUNT(DISTINCT id_pasien) = (SELECT COUNT(*) FROM pasien WHERE jenis_kelamin = 'P') </pre>	<p>0 rows retrieved in 264 ms (execution: 247 ms, fetching: 17 ms)</p>

13. [Trivia] Apakah kita mungkin mendapatkan data tertentu dari operasi inner join menggunakan keyword IN?

Mungkin, kita tinggal query suatu table yang ada WHERE id IN (SELECT id FROM [table] WHERE [condition]) dimana idnya itu adalah PK-nya menghubungkan kedua table tersebut. Contohnya seperti di nomor 2 bisa ditulis dengan INNER JOIN semua, seperti:

```

SELECT o.nama
FROM obat o
    INNER JOIN pemberian_obat po USING (id_obat)
    INNER JOIN shift_perawat sp USING (id_shift_perawat)
    INNER JOIN perawat p USING (id_perawat)
WHERE p.jenis_kelamin = 'P';

```

Bisa juga ditulis dengan salah satu dari INNER JOINnya diganti dengan IN, seperti:

```

SELECT o.nama
FROM obat o
    INNER JOIN pemberian_obat po USING (id_obat)
WHERE po.id_shift_perawat IN (SELECT sp.id_shift_perawat
                                FROM shift_perawat sp
                                INNER JOIN perawat p USING (id_perawat)
                                WHERE p.jenis_kelamin = 'P');

```

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

Latihan 2

1. [SQL] Jalankan SQL Query pada Contoh 27 hingga Contoh 35 di atas dan cantumkan hasilnya pada laporan.

27.

```
eduardus.tjitrahardja.siwanap> -- 27
CREATE VIEW daftar_dokter AS
SELECT id_dokter, nama
FROM dokter
[2022-11-01 13:51:30] completed in 81 ms
```

28.

```
eduardus.tjitrahardja.siwanap> SELECT *
FROM daftar_dokter
[2022-11-01 13:51:56] 50 rows retrieved starting from 1 in 186 ms (execution: 165 ms, fetching: 21 ms)
```

id_dokter	nama
1 D001	Lorry Jervois
2 D002	Brantley Ludlem
3 D003	Fanechka Maryman
4 D004	Ronda Hargitt
5 D005	Frederique Puce
6 D006	Barty Leebeter
7 D007	Ly Spelllessy
8 D008	Den Stollsteimer
9 D009	Jenda Chaudret
10 D010	Moreen Hebblethwaite
11 D011	Idalia Caughte
12 D012	Darbie Howle
13 D013	Meade Munn
14 D014	Josephine Schnieder
15 D015	Reynold Bedding

29.

```
eduardus.tjitrahardja.siwanap> DROP VIEW daftar_dokter
[2022-11-01 13:52:09] completed in 81 ms
```

30.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_jenis_kamar ON kamar (jenis)
[2022-11-01 13:52:16] completed in 91 ms
```

31.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_pasien
ON pasien USING HASH (nama)
[2022-11-01 13:52:29] completed in 104 ms
```

32.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_perawat
ON perawat (id_perawat, nama DESC)
[2022-11-01 13:53:15] completed in 178 ms
```

33.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_dokter
                                ON dokter (nama)
[2022-11-01 13:53:31] completed in 120 ms
a.
eduardus.tjitrahardja.siwanap> CREATE INDEX index_spesialisasi_dokter
                                ON dokter (spesialisasi)
[2022-11-01 13:53:53] completed in 145 ms
b.
eduardus.tjitrahardja.siwanap> DROP INDEX index_nama_dokter
[2022-11-01 13:54:20] completed in 36 ms
34.
eduardus.tjitrahardja.siwanap> EXPLAIN ANALYZE
SELECT *
FROM PASIEN
WHERE jenis_kelamin = 'L'
[2022-11-01 13:54:43] 5 rows retrieved starting from 1 in 53 ms (execution: 40 ms, fetching: 13 ms)
35.
```

2. View

- a. [Trivia] Apa yang akan terjadi jika kita membuat View menggunakan nama yang sama dengan nama tabel yang ada pada database? Jelaskan! Tidak bisa, console akan mengeluarkan error “ERROR: relation “dokter” already exists” seperti ini:

```
eduardus.tjitrahardja.siwanap> -- 1
CREATE VIEW dokter AS
SELECT *
FROM dokter
[2022-11-01 13:57:26] [42P07] ERROR: relation "dokter" already exists
```

karena VIEW berguna sebagai table sementara, sehingga jika kita menamakannya sama dengan salah satu table yang sudah ada akan bertabrakan namanya.

- b. [Trivia] Apa fungsi TEMP atau TEMPORARY di View? TEMP atau TEMPORARY di View berguna untuk memberitahu SQL server bahwa View ini adalah *temporary*/sementara. Dimana setelah sesi sekarang berakhir, view *temporary* tersebut akan didrop.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

- c. [SQL] Buatlah View yang menyimpan **nama** beserta **durasi bekerja** yang dilakukan oleh perawat.

	nama	durasi_kerja
1	Ula Lardeux	36
2	Kelcy Fraschini	36
3	Federica Blanden	36
4	Thorndike Quiddinton	12
5	Andrei Sandland	36
6	Jandy Bassingham	24
7	Noreen Agostini	60
8	Jarrett Bompas	36
9	Sanderson Worg	36
10	Ella Arndell	48
11	Ossie Merriday	24
12	Teodor Schlag	12
13	Mair Riddich	36

```
eduardus.tjitrarahardja.sivanapa -- 2c
-- ASUMSI: durasi bekerja yang dilakukan oleh perawat itu maksudnya
-- total jam kerja yang sudah dilakukan perawat
CREATE VIEW perawat_durasikerja AS
SELECT p.nama, SUM(EXTRACT(HOURS FROM sp.waktu_akhir - sp.waktu_mulai)) AS durasi_kerja
FROM perawat p
INNER JOIN shift_perawat sp USING (id_perawat)
GROUP BY 1
[2022-11-01 14:05:25] completed in 76 ms
```

- d. [SQL] Buatlah View yang menyimpan **nama-nama perawat** yang merawat pasien dikelompokkan berdasarkan id pasien dan **nama pasien** yang belum keluar dari rumah sakit (HINT: string_agg)

	id_pasien	nama	nama_perawat
1	PA43	Donni OHaire	Sayers Windmill, Jarrett Bompas, Sydel Fiveash
2	PA19	Virgil Clutterbuck	Mitchell Greger
3	PA22	Lee Dot	Ossie Merriday, Dasi Mirams, Paige Dowell
4	PA25	Hamlen Ryles	Clea Ebdin, Federica Blanden
5	PA32	Barry Steljes	Federica Blanden

```
[2022-11-01 14:08:06] 5 rows retrieved starting from 1 in 277 ms (execution: 267 ms, fetching: 10 ms)
eduardus.tjitrarahardja.sivanapa -- 2d
CREATE VIEW pasien_perawat AS
SELECT p.id_pasien, p.nama, STRING_AGG(p2.nama, ', ') as nama_perawat
FROM perawat p2
INNER JOIN shift_perawat sp USING (id_perawat)
INNER JOIN rawat_inap ri USING (id_rawat_inap)
INNER JOIN pasien p USING (id_pasien)
WHERE ri.tgl_keluar IS NULL
GROUP BY 1, 2
[2022-11-01 14:09:43] completed in 118 ms
```

3. Indexing and Analyze

Diberikan query berikut.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023

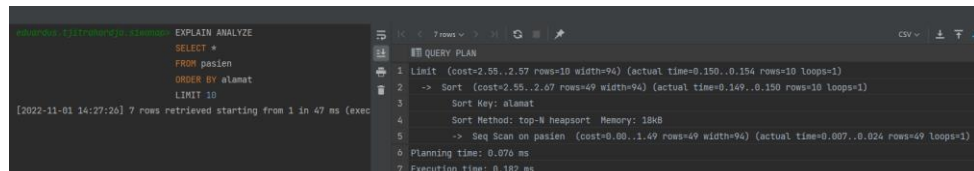
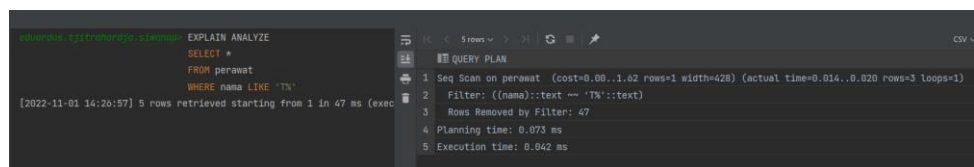
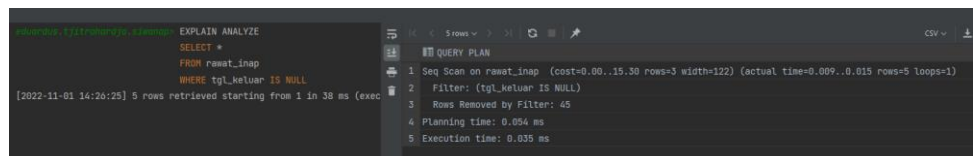
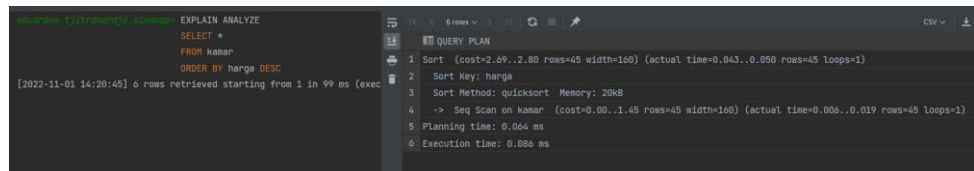
```
SELECT * FROM kamar ORDER BY harga DESC;
```

```
SELECT * FROM rawat_inap WHERE tgl_keluar IS  
NULL;
```

```
SELECT * FROM perawat WHERE nama LIKE 'T%';
```

```
SELECT * FROM pasien ORDER BY alamat LIMIT 10;
```

a.[SQL] Jalankan perintah EXPLAIN ANALYZE untuk setiap *query* di atas. *Screenshot* eksekusinya dan tulis hasilnya pada tabel di bawah, sertakan dalam laporan submisi Anda.



- b. [SQL] Buat *index* berikut (*method* nya terserah Anda):
- index_nama_pasien pada tabel **PASIEN** kolom **nama**.

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_pasien
                                ON pasien (nama)
[2022-11-01 14:34:37] completed in 89 ms
```

- ii. index_nama_obat pada tabel **OBAT** kolom **nama**.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_obat
                                ON obat (nama)
[2022-11-01 14:30:19] completed in 61 ms
```

- iii. index_nama_dokter pada tabel **DOKTER** kolom **nama**.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_dokter
                                ON dokter (nama)
[2022-11-01 14:38:08] completed in 137 ms
```

- iv. index_nama_perawat pada tabel **PERAWAT** kolom **nama**.

```
eduardus.tjitrahardja.siwanap> CREATE INDEX index_nama_perawat
                                ON perawat (nama)
[2022-11-01 14:38:31] completed in 113 ms
```

Tampilkan *query* dan *index* untuk setiap tabel di dalam laporan submisi Anda.

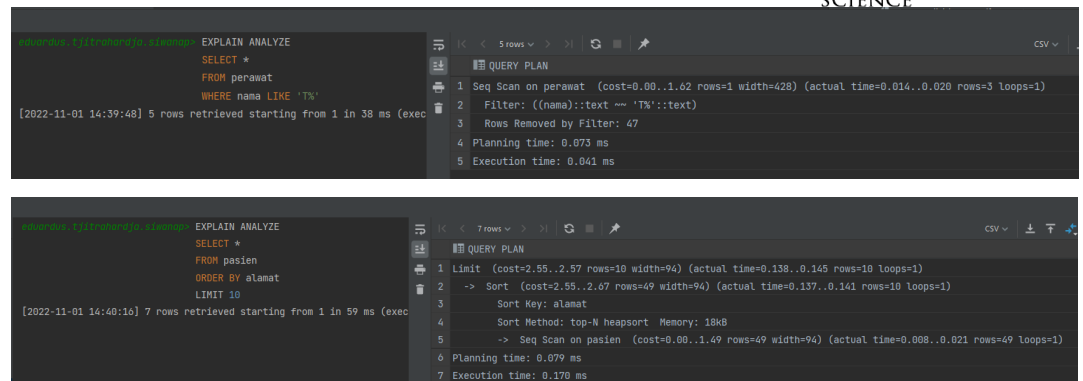
- c. [SQL] Jalankan kembali **setiap query SELECT** di atas dari pertanyaan nomor 3 menggunakan perintah EXPLAIN ANALYZE. *Screenshot* eksekusinya dan tulis hasilnya pada tabel di bawah, sertakan dalam laporan submisi Anda.

<pre>eduardus.tjitrahardja.siwanap> EXPLAIN ANALYZE SELECT * FROM kamar ORDER BY harga DESC [2022-11-01 14:39:11] 6 rows retrieved starting from 1 in 33 ms (exec</pre>	<pre>QUERY PLAN 1 Sort (cost=2.69..2.80 rows=45 width=100) (actual time=0.068..0.079 rows=45 loops=1) 2 Sort Key: harga 3 Sort Method: quicksort Memory: 20kB 4 -> Seq Scan on kamar (cost=0.00..1.45 rows=45 width=100) (actual time=0.009..0.019 rows=45 loops=1) 5 Planning time: 0.064 ms 6 Execution time: 0.116 ms</pre>
<pre>eduardus.tjitrahardja.siwanap> EXPLAIN ANALYZE SELECT * FROM rawat_inap WHERE tgl_keluar IS NULL [2022-11-01 14:39:30] 5 rows retrieved starting from 1 in 39 ms (exec</pre>	<pre>QUERY PLAN 1 Seq Scan on rawat_inap (cost=0.00..15.30 rows=3 width=122) (actual time=0.009..0.016 rows=5 loops=1) 2 Filter: (tgl_keluar IS NULL) 3 Rows Removed by Filter: 45 4 Planning time: 0.054 ms 5 Execution time: 0.035 ms</pre>

Laporan Tutorial Lab 2

Basis Data

Semester Ganjil 2022/2023



d. [Trivia] Bandingkan *planning time* dan *execution time* (menggunakan tabel di bawah) dari *query* saat tanpa index dan setelah menggunakan *index*. Mana yang lebih baik? Berikan penjelasan!

Query	Planning Time		Execution Time	
	TANPA INDEX	DENGAN INDEX	TANPA INDEX	DENGAN INDEX
1	0.064ms	0.064ms	0.086ms	0.116ms
2	0.054ms	0.054ms	0.035ms	0.035ms
3	0.073ms	0.073ms	0.042ms	0.041ms
4	0.076ms	0.079ms	0.182ms	0.170ms

Seharusnya, dengan index akan lebih cepat execution timenya. Namun, di saya relatif sama untuk planning dan execution timenya.