

TUGAS

1. Himpunlah screenshot sintaksis SQL berikut hasil SELECT yang Anda dapat di komputer Anda pada bagian Praktikum dalam sebuah laporan dengan format PDF!

- **Praktikum 1:**

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM jadwal;
```

	kode_jadwal	kode_kelas	kode_dosen	kode_mk	kode_ruang	kode_hari	jp_mulai	jp_selesai
	1	2021020101	D001	02001	0504	001	7	9
	2	2021010103	D001	02001	0506	002	9	11
	3	2021010105	D001	02001	0806	003	10	12
	4	2021010102	D001	02001	0506	004	1	3
	5	2021010106	D001	02001	0806	004	4	6
	6	2021010101	D001	02001	0506	004	7	9
	7	2021010104	D001	02001	0506	005	10	12
	8	2021010206	D002	02037	0702	001	7	12
	9	2021020202	D002	02036	0708	003	2	4
	10	2021010205	D002	02037	0713	004	1	6
	11	2021020209	D002	02025	0719	004	7	12
	12	2021020301	D003	02012	0508	002	1	4
	13	2021020302	D003	02012	0508	002	1	4
	14	2021010201	D003	02017	0719	003	2	5
	15	2021010202	D003	02017	0719	003	2	5

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM prodi;
```

kode_prodi	nama_prodi
001	D3 Manajemen Informatika
002	D4 Teknik Informatika

```
2 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM kelas;
```

kode_kelas	kode_prodi	nama_kelas
2021010101	001	MI-
2021010102	001	MI-
2021010103	001	MI-
2021010104	001	MI-
2021010105	001	MI-
2021010106	001	MI-
2021010107	001	MI-
2021010201	001	MI-
2021010202	001	MI-
2021010203	001	MI-
2021010204	001	MI-
2021010205	001	MI-
2021010206	001	MI-
2021010301	001	MI-

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM ruang;
```

kode_ruang	nama_ruang	deskripsi_ruang
0501	RT01	Ruang Teori 1
0502	RT02	Ruang Teori 2
0503	RT03	Ruang Teori 3
0504	RT04	Ruang Teori 4
0505	RT05	Ruang Teori 5
0506	RT06	Ruang Teori 6
0507	RT07	Ruang Teori 7
0508	LPY1	Laboratorium Proyek 1
0615	LSI1	Laboratorium Sistem Informasi 1
0617	LSI2	Laboratorium Sistem Informasi 2
0618	LSI3	Laboratorium Sistem Informasi 3
0619	LPY2	Laboratorium Proyek 2
0620	LPY3	Laboratorium Proyek 3
0701	LPR1	Laboratorium Pemrograman 1
0702	LPR2	Laboratorium Pemrograman 2
0703	LPR3	Laboratorium Pemrograman 3
0704	LPR4	Laboratorium Pemrograman 4
0705	LPR5	Laboratorium Pemrograman 5
0706	LPR6	Laboratorium Pemrograman 6
0707	LKJ1	Laboratorium Keamanan Jaringan 1
0708	LPR7	Laboratorium Pemrograman 7
0713	LKJ2	Laboratorium Keamanan Jaringan 2
0714	LPR8	Laboratorium Pemrograman 8
0715	LKJ3	Laboratorium Keamanan Jaringan 3
0716	LIG1	Laboratorium Visi Komputer 1

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM hari;
```

kode_hari	nama_hari
001	Senin
002	Selasa
003	Rabu
004	Kamis
005	Jumat
006	Sabtu
007	Minggu

```
7 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM dosen;
```

kode_dosen	nama_dosen
D001	Abdul Chalim, SAg., MPd.I
D002	Ade Ismail
D003	Agung Nugroho Pramudhita ST., MT.
D004	Ahmadi Yuli Ananta ST., MM.
D005	Ane Fany Novitasari, SH.MKn.
D006	Annisa Puspa Kirana MKom.
D007	Annisa Taufika Firdausi ST., MT.
D008	Anugrah Nur Rahmanto SSn., MDs.
D009	Ariadi Retno Ririd SKom., MKom.
D010	Arie Rachmad Syulistyo SKom., MKom.
D011	Arief Prasetyo SKom., MKom.
D012	Arwin Sumari ST., MT., DR.
D013	Atiqah Nurul Asri SPd., MPd.
D014	Bagas Satya Dian Nugraha, ST., MT.
D015	Banni Satria Andoko, S. Kom., M.MSI
D016	Budi Harijanto ST., MMKom.
D017	Cahya Rahmad ST., MKom. DR.Eng
D018	Candra Bella Vista SKom., MT.

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM mk;
```

kode_mk	nama_mk
02001	Agama
02002	Aljabar Linier
02003	Algoritma dan Struktur Data
02004	Aljabar Linier
02005	Analisis Dan Desan Berorientasi Objek
02006	Bahasa Indonesia
02007	Bahasa Inggris
02008	Bahasa Inggris 2
02009	Bahasa Inggris Persiapan Kerja
02010	Basis Data
02011	Desain Pemrograman Web
02012	Digital Entrepreneurship
02013	E-Business
02014	Etika Profesi Bidang TI
02015	Internet Of Things
02016	Kewarganegaraan
02017	Komputasi Multimedia
02018	Machine Learning
02019	Manajemen Jaringan Komputer

```
MariaDB [jadwal_perkuliah2]> SELECT * FROM jp;
```

kode_jp	jp_mulai	jp_selesai
1	07:00:00	07:50:00
2	07:50:00	08:40:00
3	08:40:00	09:30:00
4	09:40:00	10:30:00
5	10:30:00	11:20:00
6	11:20:00	12:10:00
7	12:50:00	13:40:00
8	13:40:00	14:30:00
9	14:30:00	15:20:00
10	15:30:00	15:30:00
11	16:20:00	17:10:00
12	17:10:00	18:00:00

```
12 rows in set (0.001 sec)
```

- **Praktikum 2:**

```
MariaDB [jadwal_perkuliah2]> SELECT deskripsi_ruang
-> From ruang
-> WHERE nama_ruang = 'LKJ1';
```

deskripsi_ruang
Laboratorium Keamanan Jaringan 1

```
1 row in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliah2]> SELECT DISTINCT kode_hari
-> FROM jadwal;
```

kode_hari
001
002
003
004
005

```
5 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM ruang
-> WHERE nama_ruang IN ('RT01', 'RT10');
+-----+-----+-----+
| kode_ruang | nama_ruang | deskripsi_ruang |
+-----+-----+-----+
| 0501      | RT01      | Ruang Teori 1   |
| 0806      | RT10      | Ruang Teori 10  |
+-----+-----+-----+
2 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM ruang
-> WHERE kode_ruang
-> BETWEEN '0501' AND '0508';
+-----+-----+-----+
| kode_ruang | nama_ruang | deskripsi_ruang |
+-----+-----+-----+
| 0501      | RT01      | Ruang Teori 1   |
| 0502      | RT02      | Ruang Teori 2   |
| 0503      | RT03      | Ruang Teori 3   |
| 0504      | RT04      | Ruang Teori 4   |
| 0505      | RT05      | Ruang Teori 5   |
| 0506      | RT06      | Ruang Teori 6   |
| 0507      | RT07      | Ruang Teori 7   |
| 0508      | LPY1      | Laboratorium Proyek 1 |
+-----+-----+-----+
8 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM dosen
-> WHERE nama_dosen LIKE 'E%';
+-----+-----+
| kode_dosen | nama_dosen |
+-----+-----+
| D028      | Eka Larasati Amalia, SST., MT. |
| D029      | Ekojono, ST., M.Kom. |
| D030      | Elok Nur Hamdana, ST., MT |
| D031      | Erfan Rohadi, ST., MEng., PhD. |
+-----+-----+
4 rows in set (0.001 sec)
```

```

MariaDB [jadwal_perkuliahan2]> SELECT kode_dosen, kode_mk, kode_ruang, kode_hari
-> FROM jadwal
-> GROUP BY kode_hari;
+-----+-----+-----+-----+
| kode_dosen | kode_mk | kode_ruang | kode_hari |
+-----+-----+-----+-----+
| D001       | 02001   | 0504       | 001       |
| D001       | 02001   | 0506       | 002       |
| D001       | 02001   | 0806       | 003       |
| D001       | 02001   | 0506       | 004       |
| D001       | 02001   | 0506       | 005       |
+-----+-----+-----+-----+
5 rows in set (0.001 sec)

```

```

MariaDB [jadwal_perkuliahan2]> SELECT kode_jp, jp_mulai
-> FROM JP
-> ORDER BY jp_mulai;
+-----+-----+
| kode_jp | jp_mulai |
+-----+-----+
| 1       | 07:00:00 |
| 2       | 07:50:00 |
| 3       | 08:40:00 |
| 4       | 09:40:00 |
| 5       | 10:30:00 |
| 6       | 11:20:00 |
| 7       | 12:50:00 |
| 8       | 13:40:00 |
| 9       | 14:30:00 |
| 10      | 15:30:00 |
| 11      | 16:20:00 |
| 12      | 17:10:00 |
+-----+-----+
12 rows in set (0.001 sec)

```

```

MariaDB [jadwal_perkuliahan2]> SELECT * FROM jadwal
-> WHERE kode_hari = '001' AND jp_mulai=1;
+-----+-----+-----+-----+-----+-----+-----+-----+
| kode_jadwal | kode_kelas | kode_dosen | kode_mk | kode_ruang | kode_hari | jp_mulai | jp_selesai |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 17          | 2021010106 | D004       | 02028   | 0704       | 001       | 1         | 3           |
| 21          | 2021020104 | D005       | 02016   | 0717       | 001       | 1         | 3           |
| 57          | 2021020204 | D012       | 02018   | 0702       | 001       | 1         | 5           |
| 75          | 2021020103 | D016       | 02038   | 0506       | 001       | 1         | 3           |
| 84          | 2021020302 | D018       | 02039   | 0701       | 001       | 1         | 6           |
| 91          | 2021020207 | D021       | 02005   | 0615       | 001       | 1         | 6           |
| 98          | 2021010205 | D023       | 02023   | 0508       | 001       | 1         | 4           |
| 103         | 2021010201 | D024       | 02037   | 0713       | 001       | 1         | 6           |
| 107         | 2021020305 | D025       | 02024   | 0615       | 001       | 1         | 6           |
| 147         | 2021020108 | D034       | 02008   | 0502       | 001       | 1         | 3           |
| 170         | 2021010101 | D039       | 02040   | 0503       | 001       | 1         | 3           |
| 171         | 2021010102 | D039       | 02040   | 0503       | 001       | 1         | 3           |
| 197         | 2021020208 | D045       | 02037   | 0718       | 001       | 1         | 6           |
| 206         | 2021020308 | D047       | 02022   | 0620       | 001       | 1         | 6           |
| 227         | 2021020206 | D051       | 02037   | 0715       | 001       | 1         | 6           |
| 242         | 2021020106 | D055       | 02003   | 0716       | 001       | 1         | 3           |
| 256         | 2021010203 | D059       | 02023   | 0719       | 001       | 1         | 4           |
| 279         | 2021010301 | D064       | 02006   | 0805       | 001       | 1         | 3           |
| 301         | 2021020306 | D071       | 02017   | 0505       | 001       | 1         | 4           |
| 302         | 2021020307 | D071       | 02017   | 0505       | 001       | 1         | 4           |
| 306         | 2021010303 | D072       | 02014   | 0720       | 001       | 1         | 3           |
| 307         | 2021010304 | D072       | 02014   | 0720       | 001       | 1         | 3           |
| 319         | 2021010105 | D075       | 02028   | 0501       | 001       | 1         | 3           |
| 324         | 2021020303 | D076       | 02012   | 0618       | 001       | 1         | 4           |
| 325         | 2021020304 | D076       | 02012   | 0618       | 001       | 1         | 4           |
| 344         | 2021020405 | D081       | 02014   | 0507       | 001       | 1         | 3           |
| 345         | 2021020406 | D081       | 02014   | 0507       | 001       | 1         | 3           |
| 360         | 2021020205 | D084       | 02032   | 0708       | 001       | 1         | 3           |
| 365         | 2021010202 | D085       | 02006   | 0504       | 001       | 1         | 3           |
+-----+-----+-----+-----+-----+-----+-----+-----+
29 rows in set (0.001 sec)

```

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_hari
-> FROM hari
-> UNION
-> SELECT kode_hari FROM jadwal;
```

kode_hari
001
002
003
004
005
006
007

```
7 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_hari
-> FROM hari
-> UNION ALL
-> SELECT kode_hari FROM jadwal;
```

```
+-----+
| kode_hari |
+-----+
```

[illegible][illegible]

- **Praktikum 3:**

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_dosen, kode_mk, kode_hari, jp_mulai, jp_selesai
-> FROM jadwal
-> WHERE jp_selesai
-> IN (SELECT MAX(jp_selesai)FROM jadwal);
```

kode_dosen	kode_mk	kode_hari	jp_mulai	jp_selesai
D001	02001	003	10	12
D001	02001	005	10	12
D002	02037	001	7	12
D002	02025	004	7	12
D004	02032	001	10	12
D004	02034	002	7	12
D005	02016	001	10	12
D006	02037	004	7	12
D006	02037	005	7	12
D007	02011	004	8	12
D008	02012	005	9	12
D008	02012	005	9	12
D009	02005	003	7	12
D011	02019	004	8	12
D015	02005	002	7	12
D015	02005	003	7	12
D015	02033	004	7	12

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_dosen, kode_mk, kode_hari, jp_mulai, jp_selesai
-> FROM jadwal
-> WHERE jp_selesai < ALL
-> (SELECT jp_selesai FROM jadwal WHERE jp_selesai=6);
```

kode_dosen	kode_mk	kode_hari	jp_mulai	jp_selesai
D001	02001	004	1	3
D002	02036	003	2	4
D003	02012	002	1	4
D003	02012	002	1	4
D003	02017	003	2	5
D003	02017	003	2	5
D003	02017	005	2	5
D004	02028	001	1	3
D005	02016	001	1	3
D005	02016	002	1	3
D005	02016	004	1	3
D005	02016	005	1	3
D006	02010	002	1	3
D007	02038	003	3	5
D007	02038	003	3	5
D008	02012	001	2	5
D008	02036	003	2	4

- **Praktikum 4:**

```
MariaDB [jadwal_perkuliahan2]> SELECT AVG(jp_selesai-jp_mulai) FROM jadwal;
```

AVG(jp_selesai-jp_mulai)
3.2216

1 row in set (0.001 sec)

```
MariaDB [jadwal_perkuliahan2]> SELECT MAX(jp_mulai) FROM jadwal;
```

MAX(jp_mulai)
10

1 row in set (0.000 sec)


```
MariaDB [jadwal_perkuliahan2]> SELECT MIN(jp_selesai) FROM jadwal;
+-----+
| MIN(jp_selesai) |
+-----+
|          3 |
+-----+
1 row in set (0.000 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT SUM(jp_selesai-jp_mulai) FROM jadwal WHERE kode_dosen='D001';
+-----+
| SUM(jp_selesai-jp_mulai) |
+-----+
|          14 |
+-----+
1 row in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM jadwal WHERE kode_dosen='D001';
+-----+-----+-----+-----+-----+-----+-----+-----+
| kode_jadwal | kode_kelas | kode_dosen | kode_mk | kode_ruang | kode_hari | jp_mulai | jp_selesai |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 2021020101 | D001 | 02001 | 0504 | 001 | 7 | 9 |
| 2 | 2021010103 | D001 | 02001 | 0506 | 002 | 9 | 11 |
| 3 | 2021010105 | D001 | 02001 | 0806 | 003 | 10 | 12 |
| 4 | 2021010102 | D001 | 02001 | 0506 | 004 | 1 | 3 |
| 5 | 2021010106 | D001 | 02001 | 0806 | 004 | 4 | 6 |
| 6 | 2021010101 | D001 | 02001 | 0506 | 004 | 7 | 9 |
| 7 | 2021010104 | D001 | 02001 | 0506 | 005 | 10 | 12 |
+-----+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.001 sec)
```

```
MariaDB [jadwal_perkuliahan2]> SELECT COUNT(kode_ruang) FROM ruang;
+-----+
| COUNT(kode_ruang) |
+-----+
|          36 |
+-----+
1 row in set (0.000 sec)
```

2. Bagaimana sintaksis untuk menampilkan semua kolom jadwal pada hari kamis yang dimulai pada pukul 08:40 ? Tunjukkan outputnya!

```
MariaDB [jadwal_perkuliahan2]> SELECT * FROM jadwal WHERE kode_hari = '004' AND jp_mulai = '08:40:00';
+-----+-----+-----+-----+-----+-----+-----+-----+
| kode_jadwal | kode_kelas | kode_dosen | kode_mk | kode_ruang | kode_hari | jp_mulai | jp_selesai |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 36 | 2021010102 | D007 | 02011 | 0615 | 004 | 8 | 12 |
| 55 | 2021010204 | D011 | 02019 | 0716 | 004 | 8 | 12 |
| 144 | 2021020105 | D032 | 02009 | 0717 | 004 | 8 | 10 |
| 268 | 2021020102 | D061 | 02004 | 0806 | 004 | 8 | 11 |
| 271 | 2021010104 | D062 | 02011 | 0703 | 004 | 8 | 12 |
| 343 | 2021010103 | D080 | 02031 | 0508 | 004 | 8 | 12 |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.000 sec)
```

3. Berapakah jumlah dosen yang mengajar pada hari selasa! Tunjukkan sintaksis dan outputnya! Kemudian tampilkan list semua kode dosen yang sesuai dengan kondisi tersebut! Tunjukkan sintaksis dan outputnya!

```
MariaDB [jadwal_perkuliahan]> SELECT DISTINCT kode_dosen FROM jadwal WHERE kode_hari = '002';
```

kode_dosen
D001
D003
D004
D007
D009
D010
D011
D012
D013
D015
D021
D025
D028
D031
D032
D034
D035
D036
D038
D039
D041
D043
D047
D048
D049
D052
D054

D054
D059
D061
D062
D063
D064
D068
D069
D070
D074
D075
D078
D079
D080
D081
D082
D083
D085

```
44 rows in set (0.001 sec)
```

4. Tampilkan kode dosen yang mengajar pada hari kamis dari tabel jadwal yang nama depannya diawali dengan huruf A. gunakan operasi intersect! Tunjukkan sintaksis dan output dari pencarian tersebut.

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_dosen FROM jadwal WHERE kode_hari = (SELECT kode_hari FROM hari WHERE nama_hari = 'Kamis') INTERSECT SELECT kode_dosen FROM dosen WHERE nama_dosen LIKE 'A%';
```

kode_dosen
D001
D002
D004
D005
D006
D007
D008
D011
D013

```
9 rows in set (0.003 sec)
```

5. Tampilkan kode_ruang tertentu pada hari tertentu dengan diurutkan berdasarkan dengan kode jam yang ter awal.

```
MariaDB [jadwal_perkuliahan2]> SELECT kode_ruang, kode_hari, jp_mulai FROM jadwal WHERE kode_hari = (SELECT kode_hari FROM hari WHERE nama_hari = 'Senin') ORDER BY jp_mulai;
```

kode_ruang	kode_hari	jp_mulai
0718	001	1
0615	001	1
0508	001	1
0713	001	1
0615	001	1
0618	001	1
0502	001	1
0805	001	1
0719	001	1
0503	001	1
0503	001	1
0620	001	1
0716	001	1
0715	001	1
0505	001	1
0505	001	1
0720	001	1
0717	001	1
0507	001	1
0704	001	1
0507	001	1
0708	001	1
0504	001	1
0618	001	1
0701	001	1
0720	001	1
0501	001	1
0506	001	1
0702	001	1
0619	001	2
0703	001	2
0705	001	2
0703	001	2

```
89 rows in set (0.002 sec)
```