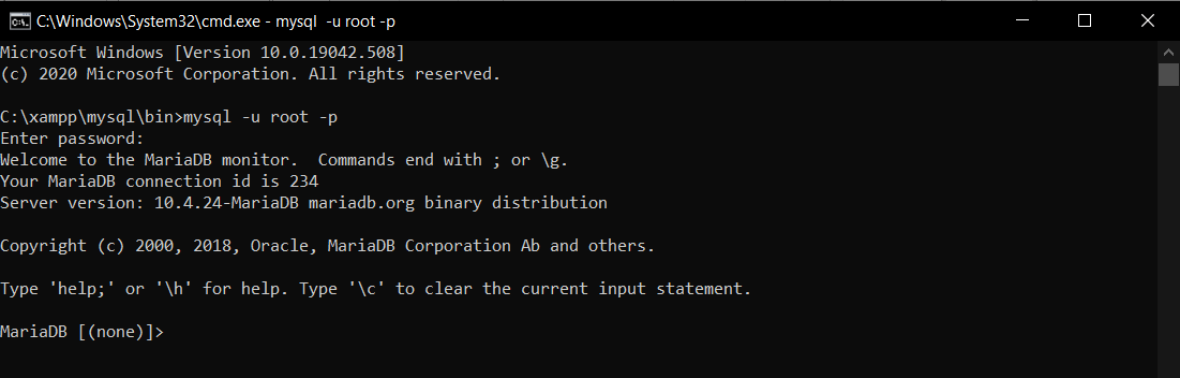
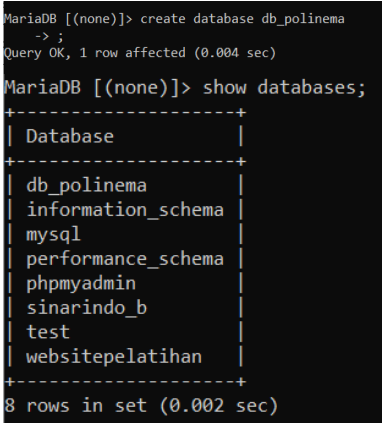
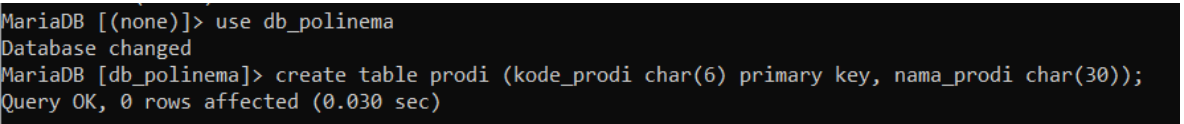


LAPORAN JOBSHEET MAGANG TSA
HandOuts 11
“SQL”

Disusun Oleh :
Fathin Naufaliya

TALENT SCOUTING ACADEMY
WEB DEVELOPER PROGRAMMING
POLITEKNIK NEGERI MALANG
2022

Hasil Praktikum

1	<p>Buka prompt jalankan perintah berikut ini :</p> <p><code>C:\>Program Files\xampp\mysql\bin>mysql -u root -p</code> (enter)</p> 																		
2	<p>Buatlah sebuah database dengan nama <i>db_polinema</i></p> 																		
3	<p>a. Tabel <i>prodi</i></p> <table border="1" data-bbox="284 1308 1473 1420"> <thead> <tr> <th>Field</th><th>Type Data</th></tr> </thead> <tbody> <tr> <td>kode_prodi</td><td>VARCHAR (6) PRIMARY KEY</td></tr> <tr> <td>nama_prodi</td><td>VARCHAR (30)</td></tr> </tbody> </table> 	Field	Type Data	kode_prodi	VARCHAR (6) PRIMARY KEY	nama_prodi	VARCHAR (30)												
Field	Type Data																		
kode_prodi	VARCHAR (6) PRIMARY KEY																		
nama_prodi	VARCHAR (30)																		
4	<p>Buatlah beberapa tabel dalam database tersebut sesuai dengan kriteria berikut :</p> <p>b. Tabel <i>mahasiswa</i></p> <table border="1" data-bbox="284 1666 1473 2013"> <thead> <tr> <th>Field</th><th>Type Data</th></tr> </thead> <tbody> <tr> <td>nim</td><td>INT (8) PRIMARY KEY</td></tr> <tr> <td>nama_mhs</td><td>VARCHAR (50)</td></tr> <tr> <td>jenis_kelamin</td><td>ENUM ('L','P') DEFAULT 'L'</td></tr> <tr> <td>alamat</td><td>VARCHAR (50)</td></tr> <tr> <td>kota</td><td>VARCHAR (20) DEFAULT 'MALANG'</td></tr> <tr> <td>asal_sma</td><td>VARCHAR (30)</td></tr> <tr> <td>no_hp</td><td>VARCHAR (12)</td></tr> <tr> <td>umur</td><td>INT</td></tr> </tbody> </table>	Field	Type Data	nim	INT (8) PRIMARY KEY	nama_mhs	VARCHAR (50)	jenis_kelamin	ENUM ('L','P') DEFAULT 'L'	alamat	VARCHAR (50)	kota	VARCHAR (20) DEFAULT 'MALANG'	asal_sma	VARCHAR (30)	no_hp	VARCHAR (12)	umur	INT
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	<table><tr><td>kode_prodi</td><td>VARCHAR (6) FOREIGN KEY fk0 (kode_prodi) REFERENCES prodi (kode_prodi)</td></tr></table>	kode_prodi	VARCHAR (6) FOREIGN KEY fk0 (kode_prodi) REFERENCES prodi (kode_prodi)										
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	<div>Untuk DBMS MariaDB</div> <pre>MariaDB [db_polinema]> create table mahasiswa (nim int(8) primary key, nama_mhs varchar(50), jenis_kelamin enum('L','P') default 'L', alamat varchar(50), kota varchar(20) default 'Malang', asal_sma varchar(30), no_hp varchar(12), umur integer, kode_prodi varchar(6), foreign key(kode_prodi) references prodi(kode_prodi)); Query OK, 0 rows affected (0.041 sec)</pre>												
5	<div>c. Tabel <i>mata_kuliah</i></div> <table><tr><th>Field</th><th>Type Data</th></tr><tr><td>mk_id</td><td>VARCHAR (10) PRIMARY KEY</td></tr><tr><td>nama_mk</td><td>VARCHAR (50)</td></tr><tr><td>jumlah_jam</td><td>FLOAT (4,2)</td></tr><tr><td>sks</td><td>INTEGER</td></tr></table> <pre>MariaDB [db_polinema]> create table mata_kuliah (mk_id char(10) primary key, nama_mk char(50), jumlah_jam float(4,2), sks integer); Query OK, 0 rows affected (0.030 sec)</pre>	Field	Type Data	mk_id	VARCHAR (10) PRIMARY KEY	nama_mk	VARCHAR (50)	jumlah_jam	FLOAT (4,2)	sks	INTEGER		
Field	Type Data												
mk_id	VARCHAR (10) PRIMARY KEY												
nama_mk	VARCHAR (50)												
jumlah_jam	FLOAT (4,2)												
sks	INTEGER												
6	<div>d. Tabel <i>ruang</i></div> <table><tr><th>Field</th><th>Type Data</th></tr><tr><td>ruang_id</td><td>VARCHAR (3) PRIMARY KEY</td></tr><tr><td>nama_ruang</td><td>VARCHAR (20)</td></tr><tr><td>Kapasitas</td><td>INTEGER</td></tr></table> <pre>MariaDB [db_polinema]> create table ruang (ruang_id char(3) primary key, nama_ruang char(20), kapasitas integer); Query OK, 0 rows affected (0.029 sec)</pre>	Field	Type Data	ruang_id	VARCHAR (3) PRIMARY KEY	nama_ruang	VARCHAR (20)	Kapasitas	INTEGER				
Field	Type Data												
ruang_id	VARCHAR (3) PRIMARY KEY												
nama_ruang	VARCHAR (20)												
Kapasitas	INTEGER												
7	<div>e. Tabel <i>dosen</i></div> <table><tr><th>Field</th><th>Type Data</th></tr><tr><td>nidn</td><td>INTEGER (20) PRIMARY KEY</td></tr><tr><td>nama_dosen</td><td>VARCHAR (50)</td></tr><tr><td>status</td><td>ENUM ('PNS','KONTRAK') DEFAULT 'PNS'</td></tr><tr><td>jenis_kelamin</td><td>ENUM ('L','P') DEFAULT 'L'</td></tr><tr><td>no_hp</td><td>VARCHAR (15)</td></tr></table> <pre>MariaDB [db_polinema]> create table dosen(nidn integer(20) primary key, nama_dosen char(50), status enum ('PNS','KONTRAK') default 'PNS', jenis_kelamin enum('L','P')default 'L', no_hp varchar(15)); Query OK, 0 rows affected (0.028 sec)</pre>	Field	Type Data	nidn	INTEGER (20) PRIMARY KEY	nama_dosen	VARCHAR (50)	status	ENUM ('PNS','KONTRAK') DEFAULT 'PNS'	jenis_kelamin	ENUM ('L','P') DEFAULT 'L'	no_hp	VARCHAR (15)
Field	Type Data												
nidn	INTEGER (20) PRIMARY KEY												
nama_dosen	VARCHAR (50)												
status	ENUM ('PNS','KONTRAK') DEFAULT 'PNS'												
jenis_kelamin	ENUM ('L','P') DEFAULT 'L'												
no_hp	VARCHAR (15)												

	<pre> MariaDB [db_polinema]> INSERT INTO mata_kuliah (mk_id, nama_mk, jumlah_jam, sks) VALUES ('PW', 'Pemrograman Website', '20', '3'); Query OK, 1 row affected (0.016 sec) MariaDB [db_polinema]> INSERT INTO prodi (kode_prodi, nama_prodi) VALUES ('TI', 'Teknik Informatika'); Query OK, 1 row affected (0.005 sec) MariaDB [db_polinema]> INSERT INTO mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, no_hp, umur, kode_prodi, agama) VALUES ('20417230', 'Muhammad Dhiyaul Auliya', 'L', 'Jl Sltan Agung Kepanjen', 'Malang', '081910441609', '23', 'TI', 'Islam'); Query OK, 1 row affected (0.003 sec) MariaDB [db_polinema]> INSERT INTO ruang (ruang_id, nama_ruang, kapasitas) VALUES ('RT1', 'Ruang Teori', '30'); Query OK, 1 row affected (0.007 sec) MariaDB [db_polinema]> INSERT INTO dosen (nidn, nama_dosen, status, jenis_kelamin, no_hp, alamat) VALUES ('192837465', 'Fathin Naufaliya ST.Kom', 'PNS', 'P', '081363884319', 'Jl. Rajawali Tlumbung A Sumberrejo Bojonegoro'); Query OK, 1 row affected (0.004 sec) MariaDB [db_polinema]> INSERT INTO mahasiswa (nim, nama_mhs, jenis_kelamin, alamat, kota, no_hp, umur, kode_prodi, agama) VALUES ('2041723015', 'Fathin Naufaliya', 'P', 'Sumberrejo', 'Bojonegoro', '081363884319', '21', 'TI', 'Islam'); Query OK, 1 row affected (0.004 sec) </pre>
11	<p><Soal> Tampilkan semua tabel yang ada didalam database <i>db_polinema</i></p> <pre> MariaDB [db_polinema]> show tables; +-----+ Tables_in_db_polinema +-----+ dosen mahasiswa mata_kuliah prodi ruang +-----+ 5 rows in set (0.001 sec) </pre>
12	<p><Soal> Tampilkan semua isi tabel yang ada didalam tabel mahasiswa</p> <pre> MariaDB [db_polinema]> select * from mahasiswa; +-----+-----+-----+-----+-----+-----+-----+-----+ nim nama_mhs jenis_kelamin alamat kota asal_sma no_hp umur kode_prodi agama +-----+-----+-----+-----+-----+-----+-----+ 20417230 Muhammad Dhiyaul Auliya L Jl Sltan Agung Kepanjen Malang NULL 081910441609 23 TI Islam 2041723015 Fathin Naufaliya P Sumberrejo Bojonegoro NULL 081363884319 21 TI Islam +-----+-----+-----+-----+-----+-----+-----+ 2 rows in set (0.000 sec) </pre>
13	<p><Soal> Tampilkan struktur(metadata) tabel mahasiswa</p>

```
MariaDB [db_polinema]> desc mahasiswa;
```

Field	Type	Null	Key	Default	Extra
nim	int(8)	NO	PRI	NULL	
nama_mhs	varchar(50)	YES		NULL	
jenis_kelamin	enum('L','P')	YES		L	
alamat	varchar(50)	YES		NULL	
kota	varchar(20)	YES		Malang	
asal_sma	varchar(30)	YES		NULL	
no_hp	varchar(12)	YES		NULL	
umur	int(11)	YES		NULL	
kode_prodi	varchar(6)	YES	MUL	NULL	
agama	varchar(10)	YES		NULL	

```
10 rows in set (0.010 sec)
```

<Soal>

hilangkan kolom asal_sma yang terdapat didalam tabel mahasiswa

```
MariaDB [db_polinema]> alter table mahasiswa drop asal_sma;
```

```
Query OK, 0 rows affected (0.014 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [db_polinema]> desc mahasiswa;
```

Field	Type	Null	Key	Default	Extra
nim	int(8)	NO	PRI	NULL	
nama_mhs	varchar(50)	YES		NULL	
jenis_kelamin	enum('L','P')	YES		L	
alamat	varchar(50)	YES		NULL	
kota	varchar(20)	YES		Malang	
no_hp	varchar(12)	YES		NULL	
umur	int(11)	YES		NULL	
kode_prodi	varchar(6)	YES	MUL	NULL	
agama	varchar(10)	YES		NULL	

```
9 rows in set (0.014 sec)
```

Tugas

1. Membuat database dan Melihat daftar database

```
MariaDB [db_polinema]> CREATE DATABASE dts_tsa;
Query OK, 1 row affected (0.004 sec)

MariaDB [db_polinema]> SHOW DATABASES;
+-----+
| Database |
+-----+
| db_polinema |
| dts_tsa |
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| sinarindo_b |
| test |
| websitepelatihan |
+-----+
9 rows in set (0.004 sec)
```

2. Menggunakan database terpilih

```
MariaDB [(none)]> USE dts_tsa
Database changed
MariaDB [dts_tsa]> _
```

3. Membuat sebuah tabel dengan atribut-atribut didalamnya

```
MariaDB [dts_tsa]> CREATE TABLE produk (id_produk int(5) not null auto_increment primary key,nama_produk varchar(25),harga_produk double);
Query OK, 0 rows affected (0.024 sec)
```

4. Menambahkan/ merubah/ menghapus atribut yang ada pada tabel

```
MariaDB [dts_tsa]> ALTER TABLE produk ADD merk_produk varchar(25);
Query OK, 0 rows affected (0.022 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [dts_tsa]> desc produk;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_produk | int(5) | NO | PRI | NULL | auto_increment |
| nama_produk | varchar(25) | YES | | NULL | |
| harga_produk | double | YES | | NULL | |
| merk_produk | varchar(25) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.006 sec)

MariaDB [dts_tsa]>
```

```
MariaDB [dts_tsa]> ALTER TABLE produk MODIFY harga_produk int(6);
Query OK, 0 rows affected (0.076 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [dts_tsa]> desc produk;
```

Field	Type	Null	Key	Default	Extra
id_produk	int(5)	NO	PRI	NULL	auto_increment
nama_produk	varchar(25)	YES		NULL	
harga_produk	int(6)	YES		NULL	

```
3 rows in set (0.012 sec)
```

```
MariaDB [dts_tsa]> ALTER TABLE produk DROP merk_produk;
Query OK, 0 rows affected (0.013 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [dts_tsa]> desc produk;
```

Field	Type	Null	Key	Default	Extra
id_produk	int(5)	NO	PRI	NULL	auto_increment
nama_produk	varchar(25)	YES		NULL	
harga_produk	int(6)	YES		NULL	

```
3 rows in set (0.005 sec)

MariaDB [dts_tsa]> _
```

5. Menghapus tabel

```
MariaDB [dts_tsa]> show tables;
+-----+
| Tables_in_dts_tsa |
+-----+
| produk             |
+-----+
1 row in set (0.002 sec)

MariaDB [dts_tsa]> DROP TABLE produk;
Query OK, 0 rows affected (0.017 sec)

MariaDB [dts_tsa]> show tables;
Empty set (0.001 sec)
```

6. Melihat struktur table

```
MariaDB [dts_tsa]> SHOW TABLES
-> ;
+-----+
| Tables_in_dts_tsa |
+-----+
| produk             |
+-----+
1 row in set (0.002 sec)
```

7. Menambahkan data sesuai kolom yang ada


```

MariaDB [dts_tsa]> INSERT INTO produk(id_produk,nama_produk,harga_produk) VALUES('0',
', 'MAMY POKO', '42000');
Query OK, 1 row affected (0.009 sec)

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | MAMY POKO | 42000 |
+-----+-----+-----+
1 row in set (0.003 sec)

```

atau dapat disederhanakan menjadi

```

MariaDB [dts_tsa]> INSERT INTO produk VALUES('0','MAMY POKO','42000');
Query OK, 1 row affected (0.005 sec)

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | MAMY POKO | 42000 |
| 2 | MAMY POKO | 42000 |
+-----+-----+-----+
2 rows in set (0.003 sec)

```

8. Menambahkan data pada kolom tertentu

```

MariaDB [dts_tsa]> INSERT INTO produk(nama_produk) VALUES('SUSU DANCOW');
Query OK, 1 row affected (0.006 sec)

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | MAMY POKO | 42000 |
| 2 | MAMY POKO | 42000 |
| 3 | SUSU DANCOW | NULL |
+-----+-----+-----+
3 rows in set (0.000 sec)

```

9. Menambahkan lebih dari satu data

```

MariaDB [dts_tsa]> INSERT INTO produk VALUES('0','MAMY POKO','42000'),('1','SUSU DANCOW','12000');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [dts_tsa]> INSERT INTO produk VALUES('0','MAMY POKO','42000'),('0','SUSU DANCOW','12000');
Query OK, 2 rows affected (0.004 sec)
Records: 2 Duplicates: 0 Warnings: 0

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 3 | MAMY POKO | 42000 |
| 4 | SUSU DANCOW | 12000 |
+-----+-----+-----+
2 rows in set (0.000 sec)

```

10. Merubah isi satu kolom pada seluruh data

```
MariaDB [dts_tsa]> UPDATE produk SET harga_produk=0;
Query OK, 5 rows affected (0.004 sec)
Rows matched: 5  Changed: 5  Warnings: 0
```

```
MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | MAMY POKO | 0 |
| 2 | MAMY POKO | 0 |
| 3 | SUSU DANCOW | 0 |
| 6 | MAMY POKO | 0 |
| 7 | SUSU DANCOW | 0 |
+-----+-----+-----+
5 rows in set (0.001 sec)
```

11. Merubah isi lebih dari satu kolom pda seluruh data

```
MariaDB [dts_tsa]> UPDATE produk SET harga_produk=0, nama_produk="kosong";
Query OK, 5 rows affected (0.005 sec)
Rows matched: 5  Changed: 5  Warnings: 0
```

```
MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | kosong | 0 |
| 2 | kosong | 0 |
| 3 | kosong | 0 |
| 6 | kosong | 0 |
| 7 | kosong | 0 |
+-----+-----+-----+
5 rows in set (0.003 sec)
```

12. Merubah isi salah satu data

```
MariaDB [dts_tsa]> UPDATE produk SET harga_produk=2000 WHERE nama_produk="kosong";
Query OK, 5 rows affected (0.004 sec)
Rows matched: 5  Changed: 5  Warnings: 0
```

```
MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
| 1 | kosong | 2000 |
| 2 | kosong | 2000 |
| 3 | kosong | 2000 |
| 6 | kosong | 2000 |
| 7 | kosong | 2000 |
+-----+-----+-----+
5 rows in set (0.000 sec)
```

13. Menghapus seluruh data pada tabel

```
MariaDB [dts_tsa]> DELETE FROM produk;
Query OK, 3 rows affected (0.004 sec)
```

```
MariaDB [dts_tsa]> select*from produk;
Empty set (0.000 sec)
```

14. Menghapus suatu data

```

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
|          3 | MAMY POKO   |          42000 |
|          4 | SUSU DANCOW |          12000 |
|          5 | POKO        |          42000 |
|          6 | DANCOW      |          12000 |
+-----+-----+-----+
4 rows in set (0.000 sec)

MariaDB [dts_tsa]> DELETE FROM produk WHERE nama_produk="DANCOW";
Query OK, 1 row affected (0.007 sec)

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
|          3 | MAMY POKO   |          42000 |
|          4 | SUSU DANCOW |          12000 |
|          5 | POKO        |          42000 |
+-----+-----+-----+
3 rows in set (0.000 sec)

```

15. Me-reset isi data table seluruhnya

```

MariaDB [dts_tsa]> TRUNCATE produk;
Query OK, 0 rows affected (0.058 sec)

MariaDB [dts_tsa]> select*from produk;
Empty set (0.003 sec)

```

16. Menampilkan semua isi tabel

```

MariaDB [dts_tsa]> select*from produk;
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
|          3 | MAMY POKO   |          42000 |
|          4 | SUSU DANCOW |          12000 |
|          5 | POPOK       |          42000 |
|          6 | DANCOW      |          12000 |
+-----+-----+-----+
4 rows in set (0.003 sec)

```

17. Menampilkan beberapa kolom

```

MariaDB [dts_tsa]> SELECT nama_produk FROM produk
-> ;
+-----+
| nama_produk |
+-----+
| MAMY POKO   |
| SUSU DANCOW |
| POPOK       |
| DANCOW      |
+-----+
4 rows in set (0.001 sec)

```

18. Menampilkan beberapa data

```
MariaDB [dts_tsa]> SELECT * FROM WHERE nama_produk="DANCOW"
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'WHERE nama_produk="DANCOW"' at line 1
MariaDB [dts_tsa]> SELECT * FROM produk WHERE nama_produk="DANCOW";
+-----+-----+-----+
| id_produk | nama_produk | harga_produk |
+-----+-----+-----+
|          6 | DANCOW      |          12000 |
+-----+-----+-----+
1 row in set (0.003 sec)
```