LAPORAN PRAKTIKUM
PEMROGRAMAN WEB
MODUL 4

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DAFTAR ISI

LATIHAN

1) **Percobaan 1 (Membuat Database)**

```
MariaDB [(none)]> CREATE DATABASE informatics;
Query OK, 1 row affected (0.003 sec)

MariaDB [(none)]> show databases;
+------------------------+
| Database               |
+------------------------+
| akademik               |
| case_study_a           |
| company_employees_test |
| election_webapp        |
| empattendanceci        |
| informatics            |
| information_schema     |
| karyawansi             |
| mfl4_blog              |
| mysql                  |
| notes_api              |
| perbankan              |
| performance_schema     |
| phpmyadmin             |
| test                   |
| web_pemilu_fosti       |
+------------------------+
16 rows in set (0.001 sec)
```

2) Percobaan 2 (Membuat Tabel)

```
MariaDB [(none)]> use informatics;
Database changed
MariaDB [informatics]> CREATE TABLE student (
    -> student_id varchar(10) PRIMARY KEY NOT NULL,
    -> name char(50) NULL,
    -> class char(5) NULL,
    -> address char(50) NULL
    -> );
Query OK, 0 rows affected (0.016 sec)

MariaDB [informatics]> show tables;
+-----------------------+
| Tables_in_informatics |
+-----------------------+
| student               |
+-----------------------+
1 row in set (0.038 sec)

MariaDB [informatics]> DESC student;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| student_id | varchar(10) | NO   | PRI | NULL    |       |
| name       | char(50)    | YES  |     | NULL    |       |
| class      | char(5)     | YES  |     | NULL    |       |
| address    | char(50)    | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
4 rows in set (0.007 sec)
```

3) Percobaan 3 (Memasukkan Data)

```
MariaDB [informatics]> INSERT INTO student VALUES
    -> ('l200080001', 'Ari Wibowo', 'A', 'Solo');
Query OK, 1 row affected (0.011 sec)

MariaDB [informatics]> SELECT * FROM student;
+------------+------------+-------+---------+
| student_id | name       | class | address |
+------------+------------+-------+---------+
| l200080001 | Ari Wibowo | A     | Solo    |
+------------+------------+-------+---------+
1 row in set (0.001 sec)

MariaDB [informatics]> INSERT INTO student (student_id, name, class)
    -> VALUES ('L200080080', 'Agustina', 'B');
Query OK, 1 row affected (0.003 sec)

MariaDB [informatics]> SELECT * FROM student;
+------------+------------+-------+---------+
| student_id | name       | class | address |
+------------+------------+-------+---------+
| l200080001 | Ari Wibowo | A     | Solo    |
| L200080080 | Agustina   | B     | NULL    |
+------------+------------+-------+---------+
2 rows in set (0.001 sec)
```

4) Percobaan 4 (Mengubah Data)

```
MariaDB [informatics]> UPDATE student SET name='Agustina Anggraini'
    -> WHERE name='Agustina';
Query OK, 1 row affected (0.014 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [informatics]> SELECT * FROM student;
+------------+--------------------+-------+---------+
| student_id | name               | class | address |
+------------+--------------------+-------+---------+
| l200080001 | Ari Wibowo         | A     | Solo    |
| L200080080 | Agustina Anggraini | B     | NULL    |
+------------+--------------------+-------+---------+
2 rows in set (0.000 sec)
```

5) Percobaan 5 (Join)

```
MariaDB [informatics]> SELECT student.student_id, student.name, score.course_name, score.numeric_score, score.alphabet_score FROM (student JOIN score ON student.student_id = score.stud
ent_id);
+------------+--------------------+----------------+---------------+----------------+
| student_id | name               | course_name    | numeric_score | alphabet_score |
+------------+--------------------+----------------+---------------+----------------+
| l200080002 | Freya              | Kapita Selekta |            60 | BC             |
| l200080010 | Gita               | Pemrograman Web |           87 | A              |
| L200080080 | Agustina Anggraini | Pemrograman Web |           90 | A              |
+------------+--------------------+----------------+---------------+----------------+
3 rows in set (0.039 sec)
```

6) Percobaan 6 (Left Join)

```
MariaDB [informatics]> SELECT student.student_id, student.name, score.course_name, score.numeric_score, score.alphabet_score FROM (student LEFT JOIN score ON student.student_id = score
.student_id);
+------------+--------------------+----------------+---------------+----------------+
| student_id | name               | course_name    | numeric_score | alphabet_score |
+------------+--------------------+----------------+---------------+----------------+
| l200080002 | Freya              | Kapita Selekta |            60 | BC             |
| l200080010 | Gita               | Pemrograman Web |           87 | A              |
| L200080080 | Agustina Anggraini | Pemrograman Web |           90 | A              |
| l200080001 | Ari Wibowo         | NULL           |          NULL | NULL           |
+------------+--------------------+----------------+---------------+----------------+
4 rows in set (0.000 sec)
```

7) Percobaan 7 (Right Join)

```
MariaDB [informatics]> SELECT student.student_id, student.name, score.course_name, score.numeric_score, score.alphabet_score FROM (student RIGHT JOIN score ON student.student_id = scor
e.student_id);
+------------+--------------------+----------------+---------------+----------------+
| student_id | name               | course_name    | numeric_score | alphabet_score |
+------------+--------------------+----------------+---------------+----------------+
| l200080002 | Freya              | Kapita Selekta |            60 | BC             |
| l200080010 | Gita               | Pemrograman Web |           87 | A              |
| L200080080 | Agustina Anggraini | Pemrograman Web |           90 | A              |
+------------+--------------------+----------------+---------------+----------------+
3 rows in set (0.037 sec)
```

8) Percobaan 8 (Fungsi AVG)

```
MariaDB [informatics]> SELECT AVG(numeric_score) 'Average Score' FROM score;
+---------------+
| Average Score |
+---------------+
|       79.0000 |
+---------------+
1 row in set (0.039 sec)
```

9) Percobaan 9 (Fungsi SUM)

```
MariaDB [informatics]> SELECT SUM(numeric_score) 'Total Score' FROM score;
+-------------+
| Total Score |
+-------------+
|         237 |
+-------------+
1 row in set (0.001 sec)
```

10) Percobaan 10 (View)

```
MariaDB [informatics]> CREATE VIEW SRC AS SELECT student.student_id, score.course_name, score.numeric_score, score.alphabet_score FROM (student INNER JOIN score ON student.student_id =
 score.student_id);
Query OK, 0 rows affected (0.042 sec)

MariaDB [informatics]> SELECT * FROM SRC;
+------------+----------------+---------------+----------------+
| student_id | course_name    | numeric_score | alphabet_score |
+------------+----------------+---------------+----------------+
| l200080002 | Kapita Selekta |            60 | BC             |
| l200080010 | Pemrograman Web |           87 | A              |
| L200080080 | Pemrograman Web |           90 | A              |
+------------+----------------+---------------+----------------+
3 rows in set (0.039 sec)
```

TUGAS

1) Fungsi beberapa function

No	Nama	Fungsi
1	SELECT	Memilih data dari satu atau lebih tabel
2	JOIN	Menggabungkan baris dari dua atau lebih tabel berdasarkan kolom-kolom yang memiliki nilai yang sama
3	LEFT JOIN	Menggabungkan setiap baris dari tabel di sebelah kiri (tabel pertama yang disebutkan dalam pernyataan JOIN) dengan setiap baris yang sesuai dari tabel di sebelah kanan (tabel kedua yang disebutkan dalam pernyataan JOIN)
4	RIGHT JOIN	Menggabungkan setiap baris dari tabel di sebelah kanan dengan setiap baris yang sesuai dari tabel di sebelah kiri
5	AVG	Menghitung nilai rata-rata dari sebuah kolom numerik
6	SUM	Menghitung total jumlah dari nilai-nilai dalam sebuah kolom numerik

2) Mengisi data Alamat "Sragen" pada tabel Mahasiswa (percobaan 3) pada NIM L20008080.

```
MariaDB [informatics]> UPDATE student SET address='Sragen'
    → WHERE student_id='L200080080';
Query OK, 1 row affected (0.012 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [informatics]> SELECT * FROM student;
+-------------+-------------------+-------+------------+
| student_id  | name              | class | address    |
+-------------+-------------------+-------+------------+
| l200008080  | Tya               | B     | Sragen     |
| l200080001  | Ari Wibowo        | A     | Solo       |
| l200080002  | Freya             | A     | Yogyakarta |
| l200080010  | Gita              | A     | Tangerang  |
| l200080011  | Michie            | B     | Jakarta    |
| L200080080  | Agustina Anggraini| B     | Sragen     |
+-------------+-------------------+-------+------------+
6 rows in set (0.001 sec)
```