LAPORAN PRAKTIKUM

Nama Matakuliah	: DATABASE SYSTEMS
SKS	: 4
Pertemuan ke	**: 6**
Nama Mahasiswa	**: Ardiyansyah**
NPM	**: 230210104**

A. Materi / Topik /

1. Slide Pertemuan 6

B. Syantax SQL dan Analisis

1. Insert multiple row kedalam table mahasiswa

```
MariaDB root@(none):kuliah> insert into mahasiswa (nim , nama , jenis_kelamin , alamat ) values
                         -> ('108' ,'salsabila' , 'p', 'jl.tembesi'),
                         -> ('109', 'Ardiyansyah', 'l', 'jl batu aji');
Query OK, 2 rows affected
Time: 0.007s
MariaDB root@(none):kuliah> select * from mahasiswa;
+-----+-------------+---------------+--------------+
| nim | nama        | jenis_kelamin | alamat       |
+-----+-------------+---------------+--------------+
| 101 | Arif        | L             | Jl. Kenangan |
| 102 | Budi        | L             | Jl. Jombang  |
| 103 | Wati        | P             | Jl. Surabaya |
| 104 | Ika         | P             | Jl. Jombang  |
| 105 | Tono        | L             | Jl. Jakarta  |
| 106 | Iwan        | L             | Jl. Bandung  |
| 107 | Sari        | P             | Jl. Malang   |
| 108 | salsabila   | p             | jl.tembesi   |
| 109 | Ardiyansyah | l             | jl batu aji  |
+-----+-------------+---------------+--------------+

9 rows in set
Time: 0.003s
```

2. menghapus isi table

```
                         -> DELETE FROM mahasiswa WHERE nim = 104;
You're about to run a destructive command.
Do you want to proceed? (y/n): y
Your call!
Query OK, 2 rows affected
Time: 0.007s

Query OK, 1 row affected
Time: 0.002s
MariaDB root@(none):kuliah> select * from mahasiswa;
+-----+-------------+---------------+--------------+
| nim | nama        | jenis_kelamin | alamat       |
+-----+-------------+---------------+--------------+
| 101 | Arif        | L             | Jl. Kenangan |
| 102 | Budi        | L             | Jl. Jombang  |
| 103 | Wati        | P             | Jl. Surabaya |
| 105 | Tono        | L             | Jl. Jakarta  |
| 106 | Iwan        | L             | Jl. Bandung  |
| 107 | Sari        | P             | Jl. Malang   |
| 108 | salsabila   | p             | jl.tembesi   |
| 109 | Ardiyansyah | l             | jl batu aji  |
+-----+-------------+---------------+--------------+

8 rows in set
Time: 0.003s
```

3. mengganti isi table

```
MariaDB root@(none):kuliah> update mahasiswa
                         -> set nama = 'yanss',alamat ='batam '
                         -> where nim = 102;
Query OK, 1 row affected
Time: 0.007s
MariaDB root@(none):kuliah> select * from mahasiswa;
+-----+-------------+---------------+--------------+
| nim | nama        | jenis_kelamin | alamat       |
+-----+-------------+---------------+--------------+
| 101 | Arif        | L             | Jl. Kenangan |
| 102 | yanss       | L             | batam        |
| 103 | Wati        | P             | Jl. Surabaya |
| 105 | Tono        | L             | Jl. Jakarta  |
| 106 | yansyah     | L             | batam center |
| 107 | Sari        | P             | Jl. Malang   |
| 108 | salsabila   | p             | jl.tembesi   |
| 109 | Ardiyansyah | l             | jl batu aji  |
+-----+-------------+---------------+--------------+
```

4. penggunaan select dan order

```
MariaDB root@(none):kuliah> select * from mahasiswa
                         -> order by nim desc;
+-----+-------------+---------------+----------------+
| nim | nama        | jenis_kelamin | alamat         |
+-----+-------------+---------------+----------------+
| 109 | Ardiyansyah | l             | jl batu aji    |
| 108 | salsabila   | p             | jl.tembesi     |
| 107 | Sari        | P             | Jl. Malang     |
| 106 | yansyah     | L             | batam center   |
| 105 | Tono        | L             | Jl. Jakarta    |
| 103 | Wati        | P             | Jl. Surabaya   |
| 102 | yanss       | L             | batam          |
| 101 | Arif        | L             | Jl. Kenangan   |
+-----+-------------+---------------+----------------+

8 rows in set
Time: 0.006s
MariaDB root@(none):kuliah>
```

5. Aritmatika pada My Sql

```
MariaDB root@(none):kuliah> select (100*100)/4 as luas;
+-------------+
| luas        |
+-------------+
| 2500.0000   |
+-------------+

1 row in set
Time: 0.003s
```

6. Menujukan total transaksi cosutmer

```
MariaDB root@(none):kuliah> select * from orders;
+---------+------------+----------+-------+-------+
| orderid | customerid | customer | total | items |
+---------+------------+----------+-------+-------+
| 1       | 1          | Bob      | 1300  | 10    |
| 2       | 3          | Fred     | 500   | 2     |
| 3       | 5          | Tess     | 2500  | 8     |
| 4       | 1          | Bob      | 300   | 6     |
| 5       | 2          | Carly    | 800   | 3     |
| 6       | 2          | Carly    | 1000  | 12    |
| 7       | 3          | Fred     | 100   | 50    |
| 8       | 5          | Tess     | 11500 | 50    |
| 9       | 4          | Jenny    | 200   | 2     |
| 10      | 1          | Bob      | 500   | 14    |
+---------+------------+----------+-------+-------+

10 rows in set
Time: 0.003s
MariaDB root@(none):kuliah> select customerid, customer, sum(total) as total_transaksi
                         -> from orders
                         -> where customerid =1
                         -> group by customerid,customer;
+------------+----------+-----------------+
| customerid | customer | total_transaksi |
+------------+----------+-----------------+
| 1          | Bob      | 2100            |
+------------+----------+-----------------+
```

7. Menunjukan beberapa kali dalam transaksi

```
Time: 0.005s
MariaDB root@(none):kuliah> select customerid , customer, count(orderid) as jumlah_transaksi
                         -> from orders
                         -> where customerid =1
                         -> group by customerid,customer;
+------------+----------+-----------------+
| customerid | customer | jumlah_transaksi |
+------------+----------+-----------------+
| 1          | Bob      | 3               |
+------------+----------+-----------------+

1 row in set
Time: 0.003s
```

8. Menujukan rata-rata transaksi

```
MariaDB root@(none):kuliah> select customerid , customer, avg(total) as jumlah_transaksi
                         → from orders
                         → group by customerid,customer;
+------------+----------+------------------+
| customerid | customer | jumlah_transaksi |
+------------+----------+------------------+
| 1          | Bob      | 700.0000         |
| 2          | Carly    | 900.0000         |
| 3          | Fred     | 300.0000         |
| 4          | Jenny    | 200.0000         |
| 5          | Tess     | 7000.0000        |
+------------+----------+------------------+
```

9. Menujukan jumlah per kategori

```
MariaDB root@(none):kuliah> select kategori, count(*) as jumlah_record
                         → from penjualan
                         → group by kategori;
+--------------+----------------+
| kategori     | jumlah_record |
+--------------+----------------+
| Alat Masak   | 1              |
| Elektronik   | 3              |
| Rumah Tangga | 2              |
+--------------+----------------+

3 rows in set
Time: 0.003s
```

10. Menunjukkan rata rata harga per kategori

```
MariaDB root@(none):kuliah> select kategori, avg(harga) as rata_harga
                         → from penjualan
                         → group by kategori;
+--------------+--------------+
| kategori     | rata_harga   |
+--------------+--------------+
| Alat Masak   | 250000.0000  |
| Elektronik   | 3800000.0000 |
| Rumah Tangga | 20000.0000   |
+--------------+--------------+
```

11. menentukan urutan dari jumlah dari paling sedikit ke paling besar berdasarkan field key

```
MariaDB root@(none):kuliah> select qty, min(qty) as jumlah_paling_sedikit
                         → from penjualan
                         → group by qty;
+-----+-----------------------+
| qty | jumlah_paling_sedikit |
+-----+-----------------------+
| 3   | 3                     |
| 6   | 6                     |
| 8   | 8                     |
| 10  | 10                    |
| 12  | 12                    |
| 17  | 17                    |
+-----+-----------------------+
```

12. menujukan jumlah dalam perkategori

```
MariaDB root@(none):kuliah> select kategori, sum(qty) as jumlah_kategori
                         → from penjualan
                         → group by kategori
                         → order by kategori;
+--------------+-----------------+
| kategori     | jumlah_kategori |
+--------------+-----------------+
| Alat Masak   | 8               |
| Elektronik   | 21              |
| Rumah Tangga | 27              |
+--------------+-----------------+

3 rows in set
Time: 0.003s
MariaDB root@(none):kuliah>
```