LAPORAN PRAKTIKUM BASIS DATA

MODUL ENAM

Disusun Untuk Memenuhi Tugas Mata Kuliah Basis Data

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DAFTAR ISI

MODUL 6

OPERATOR DAN FUNGSI

Untuk menggunakan operator dan fungsi pada sql ini, tidak perlu menggunakan database apapun yang penting sudah masuk ke terminal sql nya (mysql)

Operasi dengan perkalian (*)

```
mysql> select 12 * 12;
```

```
MariaDB [(none)]> select 12 * 12;
+----------+
| 12 * 12  |
+----------+
|      144 |
+----------+
1 row in set (0.001 sec)
```

Operasi dengan pembagian (/)

```
mysql> select 60 / 5;
```

```
MariaDB [(none)]> select 60 / 5;
+----------+
| 60 / 5   |
+----------+
| 12.0000  |
+----------+
1 row in set (0.001 sec)
```

Operasi dengan Penjumlahan (+)

```
mysql> select 60 + 5, 70 + 19;
```

```
MariaDB [(none)]> select 60 + 5, 70 + 19;
+--------+----------+
| 60 + 5 | 70 + 19  |
+--------+----------+
|     65 |       89 |
+--------+----------+
1 row in set (0.001 sec)
```

Operasi dengan Pengurangan (-)

```
mysql> select 60 - 50, 70 - 19 - 11;
```

```
MariaDB [(none)]> select 60 - 50, 70 - 19 - 11;
+--------+--------------+
| 60 - 50 | 70 - 19 - 11 |
+--------+--------------+
|      10 |           40 |
+--------+--------------+
1 row in set (0.001 sec)
```

Operasi dengan Modulus (%)

```
mysql> select 7 % 2;
```

```
MariaDB [(none)]> select 7 % 2;
+-------+
| 7 % 2 |
+-------+
|     1 |
+-------+
1 row in set (0.001 sec)
```

Menghitung nilai Radians

```
mysql> select radians(50);
```

```
MariaDB [(none)]> select radians(50);
+--------------------+
| radians(50)        |
+--------------------+
| 0.8726646259971648 |
+--------------------+
1 row in set (0.001 sec)
```

Mendapatkan derajat sudut

```
mysql> select radians(30), degrees(0.8726646259971648);
```

```
+--------------------+-----------------------------------+
| radians(50)        | degrees(0.8726646259971648) |
+--------------------+-----------------------------------+
| 0.8726646259971648 |                                50 |
+--------------------+-----------------------------------+
1 row in set (0.001 sec)
```

Menghitung nilai Cosinus

```
mysql> select cos(radians(30)), cos(radians(60));
```

```
+--------------------+--------------------+
| cos(radians(30))   | cos(radians(60))   |
+--------------------+--------------------+
| 0.8660254037844387 | 0.5000000000000001 |
+--------------------+--------------------+
1 row in set (0.001 sec)
```

Menghitung nilai Sinus

```
mysql> select sin(radians(30)), sin(radians(60));
```

```
+--------------------+--------------------+
| sin(radians(30))    | sin(radians(60))   |
+--------------------+--------------------+
| 0.49999999999999994 | 0.8660254037844386 |
+--------------------+--------------------+
1 row in set (0.001 sec)
```

Menghitung Nilai Tangen

```
mysql> select tan(radians(30)), tan(radians(60));
```

```
MariaDB [(none)]> select tan(radians(30)), tan(radians(60));
+--------------------+--------------------+
| tan(radians(30))   | tan(radians(60))   |
+--------------------+--------------------+
| 0.5773502691896257 | 1.7320508075688767 |
+--------------------+--------------------+
1 row in set (0.001 sec)
```

Membulatkan bilangan pecah dengan ROUND

```
mysql> select round(2,45),round(2,70);
```

```
MariaDB [(none)]> select round(2.45), round(2.70);
+--------------+--------------+
| round(2.45) | round(2.70) |
+--------------+--------------+
|           2 |           3 |
+--------------+--------------+
1 row in set (0.000 sec)
```

Membulatkan bilangan pecah ke atas dengan CEILING

```
mysql> select ceiling(2,45),ceiling(2,70);   *typo disana tapi hasilnya sama
```

```
MariaDB [(none)]> select ceiling(2.45), round(2.70);
+----------------+--------------+
| ceiling(2.45) | round(2.70) |
+----------------+--------------+
|             3 |           3 |
+----------------+--------------+
1 row in set (0.001 sec)
```

Membulatkan bilangan pecah ke bawah dengan FLOOR

```
mysql> select floor(2,45),floor(2,70);
```

```
MariaDB [(none)]> select floor(2.45), floor(2.70);
+--------------+--------------+
| floor(2.45) | floor(2.70) |
+--------------+--------------+
|           2 |           2 |
+--------------+--------------+
1 row in set (0.001 sec)
```

Mencari nilai pembagian dengan DIV

```
mysql> select 5 div 2, 5/2;
```

```
MariaDB [(none)]> select 5 div 2, 5/2;
+-----------+---------+
| 5 div 2 | 5/2     |
+-----------+---------+
|         2 | 2.5000 |
+-----------+---------+
1 row in set (0.001 sec)
```

Mendapatkan sisa pembagian dengan MOD

```
mysql> select 8 mod 3;
```

```
MariaDB [(none)]> select 8 mod 3;
+---------+
| 8 mod 3 |
+---------+
|       2 |
+---------+
1 row in set (0.001 sec)
```

Mendapatkan nilai terkecil dengan LEAST

```
mysql> select least(10, 5, 4, 27, 12);
```

```
MariaDB [(none)]> select least(10, 5, 4, 27, 12);
+-------------------------+
| least(10, 5, 4, 27, 12) |
+-------------------------+
|                       4 |
+-------------------------+
1 row in set (0.001 sec)
```

Mencari nilai terbanyak dengan GREATEST

```
mysql> select greatest(10, 5, 4, 27, 12);
```

```
MariaDB [(none)]> select greatest(10, 5, 4, 27, 12);
+----------------------------+
| greatest(10, 5, 4, 27, 12) |
+----------------------------+
|                         27 |
+----------------------------+
1 row in set (0.001 sec)
```

Operasi Perpangkatan dengan POW

```
mysql> select pow(2,3), power(2,4), pow(5,2);
```

```
+----------+------------+----------+
| pow(2,3) | power(2,4) | pow(5,2) |
+----------+------------+----------+
|        8 |         16 |       25 |
+----------+------------+----------+
1 row in set (0.001 sec)
```

Mengacak susunan angka dengan RAND

```
mysql> select rand(), rand(2), rand(20);
```

```
+--------------------+--------------------+--------------------+
| rand()             | rand(2)            | rand(20)           |
+--------------------+--------------------+--------------------+
| 0.1527123517847735 | 0.6555866465490187 | 0.15888261251047497 |
+--------------------+--------------------+--------------------+
1 row in set (0.001 sec)
```

Mencari nilai akar dengan SQRT

```
mysql> select sqrt(49);
```

```
MariaDB [(none)]> select sqrt(49);
+-----------+
| sqrt(49) |
+-----------+
|        7 |
+-----------+
1 row in set (0.001 sec)
```

Mengambil nilai PI

```
mysql> select pi();
```

```
MariaDB [(none)]> select pi();
+----------+
| pi()     |
+----------+
| 3.141593 |
+----------+
1 row in set (0.001 sec)
```

Mendapatkan panjang desimal dari bilangan dengan TRUNCATE

```
mysql> select truncate(1.245,2);
```

```
MariaDB [(none)]> select truncate(1.245,2);
+------------------+
| truncate(1.245,2) |
+------------------+
|             1.24 |
+------------------+
1 row in set (0.001 sec)
```

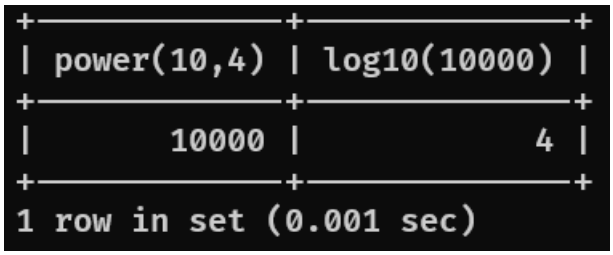
Menggunakan Fungsi Logaritma – Basis 2 dengan LOG

```
mysql> select power(2,9), log2(16);
```

```
+------------+-----------+
| power(2,9) | log2(16) |
+------------+-----------+
|        512 |         4 |
+------------+-----------+
1 row in set (0.001 sec)
```

Menggunakan Fungsi Logaritma – Basis 10 dengan LOG10

```
mysql> select power(10,4), log10(10000);
```



```
+--------------+---------------+
| power(10,4) | log10(10000) |
+--------------+---------------+
|       10000 |             4 |
+--------------+---------------+
1 row in set (0.001 sec)
```