

TEKNOLOGI BASIS DATA
“Perintah Dasar MySQL dengan CMD 3”

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TUGAS PRAKTIKUM 3

Pegawai

1. Buat table pegawai dan isi datanya seperti berikut:

```
MariaDB [latihan3]> select * from pegawai;
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E001	ferry	gustiawan	ferry@yahoo.com	07117059004	2005-09-01	L0001	2000000	500000
E002	aris	ganiardi	aris@yahoo.com	081312345678	2006-09-01	L0002	2000000	200000
E003	faiz	ahmad	faiz@gmail.com	081367384322	2006-10-01	L0003	1500000	NULL
E004	emma	bunton	emma@gmail.com	081363484342	2006-10-01	L0004	1500000	0
E005	mike	scof	mike@plasa.com	08163454555	2007-09-01	L0005	1250000	0
E006	lincoln	burrows	linc@yahoo.com	08527388432	2008-09-01	L0006	1750000	NULL

6 rows in set (0.00 sec)

Langkah – langkahnya adalah sebagai berikut:

✚ Buat database dengan nama latihan3

```
MariaDB [(none)]> create database latihan3;
Query OK, 1 row affected (0.03 sec)

MariaDB [(none)]> show databases;
```

Database
belajar
information_schema
latihan1
latihan2
latihan3
mysql
performance_schema
phpmyadmin
test

9 rows in set (0.00 sec)

✚ Buat table dengan nama pegawai

```
MariaDB [latihan3]> create table pegawai (
-> idpegawai varchar(5) primary key,
-> namadepan varchar(10),
-> namabelakang varchar(10),
-> email varchar(20),
-> telepon varchar(12),
-> tglkontrak date,
-> idjob varchar(6),
-> gaji int(10),
-> tunjangan varchar(10)
-> );
Query OK, 0 rows affected (0.27 sec)
```

✚ Isi table pegawai seperti diatas dengan perintah sebagai beikut:

```
MariaDB [latihan3]> insert into pegawai (idpegawai, namadepan, namabelakang, email, telepon, tglkontrak, idjob, gaji, tunjangan) values
-> ('E001', 'ferry', 'gustiawan', 'ferry@yahoo.com', '07117059004', '2005-09-01', 'L0001', '2000000', '500000'),
-> ('E002', 'aris', 'ganiardi', 'aris@yahoo.com', '081312345678', '2006-09-01', 'L0002', '2000000', '200000'),
-> ('E003', 'faiz', 'ahmad', 'faiz@gmail.com', '081367384322', '2006-10-01', 'L0003', '1500000', null),
-> ('E004', 'emma', 'bunton', 'emma@gmail.com', '081363484342', '2006-10-01', 'L0004', '1500000', '0'),
-> ('E005', 'mike', 'scof', 'mike@plasa.com', '08163454555', '2007-09-01', 'L0005', '1250000', '0'),
-> ('E006', 'lincoln', 'burrows', 'linc@yahoo.com', '08527388432', '2008-09-01', 'L0006', '1750000', null);
Query OK, 6 rows affected (0.12 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

2. Tampilkan pegawai yang gajinya bukan 2.000.000 dan 1.250.000 !

```
MariaDB [latihan3]> select * from pegawai where gaji != 2000000 and gaji != 1250000;
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E003	faiz	ahmad	faiz@gmail.com	081367384322	2006-10-01	L0003	1500000	NULL
E004	emma	bunton	emma@gmail.com	081363484342	2006-10-01	L0004	1500000	0
E006	lincoln	burrows	linc@yahoo.com	08527388432	2008-09-01	L0006	1750000	NULL

3 rows in set (0.00 sec)

3. Tampilkan pegawai yang tunjangannya NULL!

```
MariaDB [latihan3]> select * from pegawai where tunjangan is null;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| idpegawai | namadepan | namabelakang | email          | telepon      | tglkontrak | idjob | gaji    | tunjangan |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| E003      | faiz      | ahmad        | faiz@gmail.com | 081367384322 | 2006-10-01 | L0003 | 1500000 | NULL      |
| E006      | lincoln   | burrows      | linc@yahoo.com  | 08527388432  | 2008-09-01 | L0006 | 1750000 | NULL      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

4. Tampilkan pegawai yang tunjangannya tidak NULL!

```
MariaDB [latihan3]> select * from pegawai where tunjangan is not null;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| idpegawai | namadepan | namabelakang | email          | telepon      | tglkontrak | idjob | gaji    | tunjangan |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| E001      | ferry     | gustiawan    | ferry@yahoo.com | 07117059004  | 2005-09-01 | L0001 | 2000000 | 500000    |
| E002      | aris      | ganiardi     | aris@yahoo.com  | 081312345678 | 2006-09-01 | L0002 | 2000000 | 200000    |
| E004      | emma      | buntun       | emma@gmail.com  | 081363484342 | 2006-10-01 | L0004 | 1500000 | 0          |
| E005      | mike      | scof         | mike@plasa.com  | 08163454555  | 2007-09-01 | L0005 | 1250000 | 0          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

5. Tampilkan/hitung jumlah baris/record tabel pegawai!

```
MariaDB [latihan3]> select count(idpegawai) from pegawai;
+-----+
| count(idpegawai) |
+-----+
| 6                 |
+-----+
1 row in set (0.00 sec)
```

6. Tampilkan/hitung jumlah total gaji di tabel pegawai!

```
MariaDB [latihan3]> select sum(gaji) from pegawai;
+-----+
| sum(gaji) |
+-----+
| 10000000  |
+-----+
1 row in set (0.00 sec)
```

7. Tampilkan/hitung rata-rata gaji pegawai!

```
MariaDB [latihan3]> select avg(gaji) as rata2_gaji from pegawai;
+-----+
| rata2_gaji |
+-----+
| 1666666.6667 |
+-----+
1 row in set (0.00 sec)
```

8. Tampilkan gaji terkecil!

```
MariaDB [latihan3]> select min(gaji) as gaji_terkecil from pegawai;
+-----+
| gaji_terkecil |
+-----+
| 1250000       |
+-----+
1 row in set (0.07 sec)
```

9. Tampilkan gaji terbesar!

```
MariaDB [latihan3]> select max(gaji) as gaji_terbesar from pegawai;
+-----+
| gaji_terbesar |
+-----+
| 2000000       |
+-----+
1 row in set (0.00 sec)
```

TUGAS PRAKTIKUM 3

Pet

1. Buat table pet dan isi datanya seperti berikut:

```
MariaDB [latihan3]> select * from pet;
```

name	owner	species	sex	birth	death
Puffball	Diane	Hamster	F	1999-03-03	NULL
Claws	Gwen	Cat	M	1994-03-17	NULL
Fluffy	Harrold	Cat	F	1993-02-04	NULL
Buffy	Harrold	Dog	F	1989-05-13	NULL
Fang	Benny	Dog	M	1990-08-27	NULL
Bowser	Diane	Dog	M	1989-08-31	1995-07-29
Chirpy	Gwen	Bird	F	1998-09-11	NULL
Whistler	Gwen	Bird	NULL	1997-12-09	NULL
Slim	Benny	Snake	M	1996-04-29	NULL

```
9 rows in set (0.00 sec)
```

Langkah – langkahnya adalah sebagai berikut:

✚ Buat table dengan nama pet

```
MariaDB [latihan3]> create table pet (  
-> name varchar(15),  
-> owner varchar(15),  
-> species varchar(15),  
-> sex varchar(3),  
-> birth date,  
-> death date  
-> );  
Query OK, 0 rows affected (0.28 sec)
```

✚ Isi table pet seperti diatas dengan perintah sebagai berikut:

```
MariaDB [latihan3]> insert into pet (name, owner, species, sex, birth, death) values  
-> ('Puffball', 'Diane', 'Hamster', 'F', '1999-03-03', null),  
-> ('Claws', 'Gwen', 'Cat', 'M', '1994-03-17', null),  
-> ('Fluffy', 'Harrold', 'Cat', 'F', '1993-02-04', null),  
-> ('Buffy', 'Harrold', 'Dog', 'F', '1989-05-13', null),  
-> ('Fang', 'Benny', 'Dog', 'M', '1990-08-27', null),  
-> ('Bowser', 'Diane', 'Dog', 'M', '1989-08-31', '1995-07-29'),  
-> ('Chirpy', 'Gwen', 'Bird', 'F', '1998-09-11', null),  
-> ('Whistler', 'Gwen', 'Bird', null, '1997-12-09', null),  
-> ('Slim', 'Benny', 'Snake', 'M', '1996-04-29', null);  
Query OK, 9 rows affected (0.09 sec)  
Records: 9 Duplicates: 0 Warnings: 0
```

2. Tampilkan jumlah hewan yang dimiliki setiap owner.

```
MariaDB [latihan3]> select owner, count(name) as jml_peliharaan from pet group by owner;
```

owner	jml_peliharaan
Benny	2
Diane	2
Gwen	3
Harrold	2

```
4 rows in set (0.00 sec)
```

3. Tampilkan jumlah hewan berdasarkan spesies

```
MariaDB [latihan3]> select species, count(species) as jumlah from pet group by species;
+-----+-----+
| species | jumlah |
+-----+-----+
| Bird    |      2 |
| Cat     |      2 |
| Dog     |      3 |
| Hamster |      1 |
| Snake   |      1 |
+-----+-----+
5 rows in set (0.00 sec)
```

4. Tampilkan jumlah hewan berdasarkan jenis kelamin

```
MariaDB [latihan3]> select sex, count(sex) as jumlah from pet group by sex;
+-----+-----+
| sex    | jumlah |
+-----+-----+
| NULL   |      0 |
| F      |      4 |
| M      |      4 |
+-----+-----+
3 rows in set (0.00 sec)
```

5. Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin

```
MariaDB [latihan3]> select species, sex, count(sex) as jumlah from pet group by species, sex;
+-----+-----+-----+
| species | sex  | jumlah |
+-----+-----+-----+
| Bird    | NULL |      0 |
| Bird    | F    |      1 |
| Cat     | F    |      1 |
| Cat     | M    |      1 |
| Dog     | F    |      1 |
| Dog     | M    |      2 |
| Hamster | F    |      1 |
| Snake   | M    |      1 |
+-----+-----+-----+
8 rows in set (0.00 sec)
```

6. Tampilkan jumlah hewan berdasarkan spesies (cat dan dog saja) dan jenis kelamin

```
MariaDB [latihan3]> select species, sex, count(sex) as jumlah from pet group by species, sex having pet.species="Cat" or pet.species="Dog";
+-----+-----+-----+
| species | sex  | jumlah |
+-----+-----+-----+
| Cat     | F    |      1 |
| Cat     | M    |      1 |
| Dog     | F    |      1 |
| Dog     | M    |      2 |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

7. Tampilkan jumlah hewan berdasarkan jenis kelamin yang diketahui saja

```
MariaDB [latihan3]> select species, sex, count(sex) as jumlah from pet group by species, sex, sex having pet.sex is not null;
+-----+-----+-----+
| species | sex  | jumlah |
+-----+-----+-----+
| Bird    | F    |      1 |
| Cat     | F    |      1 |
| Cat     | M    |      1 |
| Dog     | F    |      1 |
| Dog     | M    |      2 |
| Hamster | F    |      1 |
| Snake   | M    |      1 |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

KESIMPULAN

MySQL menyediakan beberapa fungsi untuk pengelompokan data, dan pengecekan data seperti :

- GROUP BY : Untuk mengelompokkan data berdasarkan field
- HAVING : Untuk mengecek data apakah memiliki nilai tertentu