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Tugas : Databases [SQL Lanjutan]



A. Membuat Databases PEGAWI

Pertama kita buat create tabel databases terlebih dahulu, disini saya membuat database dengan nama **LATIHAN3** seperti yang terlihat di gambar01

lalu kita create table pegawai dengan mengisi (**id_pegawai, nama_depan, nama_belakang, email, tlp, tgl_kontrak, id_job, gaji, dan tunjangan**) seperti yang terlihat di gambar01

lalu kita masukan dengan cara **insret into pegawai** seperti yang terlihat pada gambar01

untuk melihat hasil tabelnya kita **select * from pegawai** seperti yang terlihat pada gambar01

```
MariaDB [(none)]> create database latihan3;
Query OK, 1 row affected (0.01 sec)

MariaDB [(none)]> use latihan3;
Database changed

MariaDB [latihan3]> create table pegawai (
  -> id_pegawai varchar (20) null,
  -> nama_depan varchar (20) null,
  -> nama_belakang varchar (20) null,
  -> email varchar (10) null,
  -> tlp varchar (12) null,
  -> tgl kontrak varchar (30) null,
  -> id_job varchar (10) null,
  -> gaji varchar (50) null,
  -> tunjangan varchar (50) null);
Query OK, 0 rows affected (0.28 sec)

MariaDB [latihan3]> insert into pegawai (id_pegawai,nama_depan,nama_belakang,email,tlp,tgl kontrak,id_job,gaji,tunjangan) values
  -> ("E001","Ferry","Gustiawan","ferry@yahoo.com","07112059004","2005-09-01","L001","2000000","500000"),
  -> ("E002","Aris","Gunadi","aris@yahoo.com","081321345678","2006-09-01","L002","2000000","200000"),
  -> ("E003","Fariz","Ahmad","fariz@gmail.com","081367384322","2006-10-01","L003","1500000",null),
  -> ("E004","Emma","Bunton","emma@gmail.com","081363484342","2006-10-01","L004","1500000","0"),
  -> ("E005","Mike","Scoff","mike@plasa.com","08163454555","2007-09-01","L005","1250000","0"),
  -> ("E006","lincoln","Burrous","linc@yahoo.com","08527388432","2008-09-01","L006","17500000",null);
Query OK, 6 rows affected, 6 warnings (0.20 sec)
Records: 6  Duplicates: 0  Warnings: 6

MariaDB [latihan3]> select * from pegawai;
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| id_pegawai | nama_depan | nama_belakang | email | tlp | tgl kontrak | id_job | gaji | tunjangan |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| E001 | Ferry | Gustiawan | ferry@yahoo | 07112059004 | 2005-09-01 | L001 | 2000000 | 500000 |
| E002 | Aris | Gunadi | aris@yahoo | 081321345678 | 2006-09-01 | L002 | 2000000 | 200000 |
| E003 | Fariz | Ahmad | fariz@gmail | 081367384322 | 2006-10-01 | L003 | 1500000 | NULL |
| E004 | Emma | Bunton | emma@gmail | 081363484342 | 2006-10-01 | L004 | 1500000 | 0 |
| E005 | Mike | Scoff | mike@plasa | 08163454555 | 2007-09-01 | L005 | 1250000 | 0 |
| E006 | lincoln | Burrous | linc@yahoo | 08527388432 | 2008-09-01 | L006 | 17500000 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

Gambar01

1. Sekarang kita Tampilkan pegawai yang gajinya bukan 2.000.000 dan 1.250.000 !
Dan hasilnya seperti berikut :

```
MariaDB [latihan3]> select * from pegawai where gaji !=2000000 and gaji !=1250000;
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| id_pegawai | nama_depan | nama_belakang | email | tlp | tgl kontrak | id_job | gaji | tunjangan |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
| E003 | Fariz | Ahmad | fariz@gmail | 081367384322 | 2006-10-01 | L003 | 1500000 | NULL |
| E004 | Emma | Bunton | emma@gmail | 081363484342 | 2006-10-01 | L004 | 1500000 | 0 |
| E006 | lincoln | Burrous | linc@yahoo | 08527388432 | 2008-09-01 | L006 | 17500000 | NULL |
+----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

2. Sekarang kita coba Tampilkan pegawai yang tunjangannya NULL!
Hasilnya seperti berikut :

```
MariaDB [latihan3]> select * from pegawai where tunjangan is null;
```

id_pegawai	nama_depan	nama_belakang	email	tlp	tgl_kontrak	id_job	gaji	tunjangan
E003	Fariz	Ahmad	fariz@gmai	081367384322	2006-10-01	L003	1500000	NULL
E006	lincoln	Burrous	linc@yahoo	08527388432	2008-09-01	L006	17500000	NULL

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

3. Lalu kita coba lagi dengan Tampilkan pegawai yang tunjangannya tidak NULL!
Hasilnya seperti berikut :

```
MariaDB [latihan3]> select * from pegawai where tunjangan is not null;
```

id_pegawai	nama_depan	nama_belakang	email	tlp	tgl_kontrak	id_job	gaji	tunjangan
E001	Ferry	Gustiawan	ferry@yaho	07112059004	2005-09-01	L001	2000000	500000
E002	Aris	Gunadi	aris@yahoo	081321345678	2006-09-01	L002	2000000	200000
E004	Emma	Bunton	emma@gmail	081363484342	2006-10-01	L004	1500000	0
E005	Mike	Scoff	mike@plasa	08163454555	2007-09-01	L005	1250000	0

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

4. Dan kita coba lagi dengan Tampilkan/hitung jumlah baris/record tabel pegawai!
Hasilnya seperti berikut :

```
MariaDB [latihan3]> select count(id_pegawai) from pegawai;
```

count(id_pegawai)
6

```
1 row in set (0.00 sec)
```

5. Lalu kita coba lagi Tampilkan/hitung jumlah total gaji di tabel pegawai!
Hasilnya seperti berikut :

```
MariaDB [latihan3]> select sum(gaji) from pegawai;
```

sum(gaji)
25750000

```
1 row in set (0.00 sec)
```

6. Kita coba lagi Tampilkan/hitung rata-rata gaji pegawai!
Hasilnya sebagai berikut :

```
MariaDB [latihan3]> select avg(gaji) as rata2_gaji from pegawai;
```

rata2_gaji
4291666.666666667

```
1 row in set (0.00 sec)
```

7. Kita Tampilkan gaji terkecil!
Hasilnya seperti berikut :

```
MariaDB [latihan3]> select min(gaji) as gaji_terkecil from pegawai;
+-----+
| gaji_terkecil |
+-----+
| 1250000       |
+-----+
1 row in set (0.00 sec)
```

8. Lalu kita coba lagi Tampilkan gaji terbesar!
Dan hasilnya seperti berikut :

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

B. Membuat PET Shop

Untuk membuat table pet shop kita lakukan hal yang sama seperti tadi, Kita create table pet terlebih dahulu dengan memasukan

create table pet (

- > name varchar (10),
- > owner varchar (20),
- > species varchar (15),
- > sex char (2),
- > brith date,
- > death date);

Setelah itu kita masukan data **(name,owner,species,sex,brith,death)** hewan tersebut dgn

insert into pet (name,owner,species,sex,brith,death) values

- > ("Pufball","Diana","Hamster","F","1999-03-03",null),
- > ("Claws","Gwen","Cat","M","1994-03-17",null),

```

-> ("Fluffy","Harold","Cat","F","1993-02-04",null),
-> ("Buffy","Harold","Dog","F","1989-05-13",null),
-> ("Fang","Benny","Dog","M","1990-08-27",null),
-> ("Bowser","Diana","Dog","M","1989-08-31","1995-07-29"),
-> ("Chripy","Gwen","Bird","F","1998-09-11",null),
-> ("Whistler","Gwen","Bird",null,"1997-12-09",null),
-> ("Slim","Benny","Snake","M","1996-04-29",null);

```

lalu kita masukan select * from pet

1. Tampilkan jumlah hewan yang dimiliki setiap owner
2. Tampilkan jumlah hewan berdasarkan spesies

Hasilnya seperti pada gambar berikut :

```

MariaDB [latihan4]> select owner, count(name) as jumlah_hewan_peliharaan from pet group by owner;
+-----+-----+
| owner | jumlah_hewan_peliharaan |
+-----+-----+
| Benny | 2 |
| Diana | 2 |
| Gwen | 3 |
| Harold | 2 |
+-----+-----+
4 rows in set (0.06 sec)

MariaDB [latihan4]> 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)

```

3. Tampilkan jumlah hewan berdasarkan jenis kelamin
4. Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin

hasilnya seperti gambar berikut :

```

MariaDB [latihan4]> 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)

MariaDB [latihan4]> select species, sex count(sex) as jumlah from pet group by species, sex;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB
ex) as jumlah from pet group by species, sex' at line 1
MariaDB [latihan4]> 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)

```

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

Hasilnya seperti pada gambar berikut :

```
MariaDB [latihan4]> 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)
```

```
MariaDB [latihan4]> select species, count(sex) as jumlah from pet group by species;
+-----+-----+
| species | jumlah |
+-----+-----+
| Bird    | 1       |
| Cat     | 2       |
| Dog     | 3       |
| Hamster | 1       |
| Snake   | 1       |
+-----+-----+
5 rows in set (0.00 sec)
```

-terimakasih-