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**KELAS : TI.17.D2**

#### **PRAKTIKUM 4**

❖ Buat table pegawai dan isi datanya seperti berikut:

idpegawai	namadepan	namabelakang	email	telepon	tgikontrak	idjob	gaji	tunjangan
E001	Ferry	Custian	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	Scoff	mike@plasa.com	08163454555	2007-09-01	L0005	1250000	0
E006	Lincoln	Burrows	line@yahoo.com	08527388432	2008-09-01	L0006	1750000	NULL

1. Tampilkan pegawai yang gajinya bukan 2.000.000 dan 1.250.000 !
2. Tampilkan pegawai yang tunjangannya NULL!
3. Tampilkan pegawai yang tunjangannya tidak NULL!
4. Tampilkan/hitung jumlah baris/record tabel pegawai!
5. Tampilkan/hitung jumlah total gaji di tabel pegawai!
6. Tampilkan/hitung rata-rata gaji pegawai!
7. Tampilkan gaji terkecil!
8. Tampilkan gaji terbesar!

❖ Buat table pet dan isi datanya seperti berikut:

name	owner	species	sex	birth	death
Puffball	Diane	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
Bouser	Diane	dog	f	1989-08-31	1995-07-29
Chirpy	Gwen	bird	m	1998-09-11	NULL
Whistler	Gwen	bird	NULL	1997-12-09	NULL
Slim	Benny	snake	m	1996-04-29	NULL

1. Tampilkan jumlah hewan yang dimiliki setiap owner.
2. Tampilkan jumlah hewan berdasarkan spesies
3. Tampilkan jumlah hewan berdasarkan jenis kelamin
4. Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin
5. Tampilkan jumlah hewan berdasarkan spesies (cat dan dog saja) dan jenis kelamin
6. Tampilkan jumlah hewan berdasarkan jenis kelamin yang diketahui saja

#### **Evaluasi dan Pertanyaan**

- ❖ Tulis semua perintah-perintah SQL percobaan di atas beserta outputnya!
- ❖ Beri kesimpulan Anda!

**Buat table pegawai dan isi datanya seperti berikut:**

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E001	Ferry	Gustian	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	Scoff	mike@plasa.com	08163454555	2007-09-01	L0005	1250000	0
E006	Lincoln	Burrows	line@yahoo.com	08527388432	2008-09-01	L0006	1750000	NULL

- Create database praktikum4;
- Use praktikum4;

**Buat tabel sebagai berikut**

- Create table pegawai

```
MariaDB [(none)]> create database praktikum4;
Query OK, 1 row affected (0.07 sec)

MariaDB [(none)]> use praktikum4;
Database changed
MariaDB [praktikum4]> use praktikum4;
Database changed
MariaDB [praktikum4]> create table pegawai
-> (idpegawai varchar(4) primary key,
-> namadepan varchar(8) not null,
-> namabelakang varchar(8) not null,
-> email varchar(15) not null,
-> telepon varchar(12) not null,
-> tglkontrak varchar(10) not null,
-> idjob varchar(5) not null,
-> gaji varchar(8) not null,
-> tunjangan varchar(8) null);
Query OK, 0 rows affected (0.47 sec)
```

- Desc pegawai;

```
MariaDB [praktikum4]> desc pegawai;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| idpegawai | varchar(4) | NO | PRI | NULL |
| namadepan | varchar(8) | NO | | NULL |
| namabelakang | varchar(8) | NO | | NULL |
| email | varchar(15) | NO | | NULL |
| telepon | varchar(12) | NO | | NULL |
| tglkontrak | varchar(10) | NO | | NULL |
| idjob | varchar(5) | NO | | NULL |
| gaji | varchar(8) | NO | | NULL |
| tunjangan | varchar(8) | YES | | NULL |
+-----+-----+-----+-----+-----+-----+
Rows in set (0.10 sec)
```

- Insert into pegawai
- (idpegawai,namadepan,namabelakang,email,telepon,tglkontrak,idjob,gaji,tunja  
ngan)
- Values
- Input data sebagai berikut

```
MariaDB [praktikum4]> insert into pegawai
(idpegawai,namadepan,namabelakang,email,telepon,tglkontrak,idjob,gaji,tunjangan)
values
-> ('E001','Ferry','Gustian','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','Scoff','mike@plasa.com','08163454555','2007-09-01','L0005','1250000','0'),
-> ('E006','Lincoln','Burrows','line@yahoo.com','08527388432','2008-09-01','L0006','1750000','NULL');
Query OK, 6 rows affected, 6 warnings (0.11 sec)
Warnings:
Warning 1: Duplicate: 6 warnings: 1
MariaDB [praktikum4]>
```

- Select\*from pegawai;

```
MariaDB [praktikum4]> select*from pegawai;
+-----+-----+-----+-----+-----+-----+-----+-----+
| idpegawai | namadepan | namabelakang | email | telepon | tglkontrak | idjob | gaji | tunjangan |
+-----+-----+-----+-----+-----+-----+-----+-----+
| E001 | Ferry | Gustian | 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 | Scoff | mike@plasa.com | 08163454555 | 2007-09-01 | L0005 | 1250000 | 0 |
| E006 | Lincoln | Burrows | line@yahoo.com | 08527388432 | 2008-09-01 | L0006 | 1750000 | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+
Rows in set (0.00 sec)
```

1. Tampilkan pegawai yang gajinya bukan 2.000.000 dan 1.250.000 !

➤ `Select * from pegawai where gaji != 2000000 and gaji != 1250000;`

```
mysql [praktikum]: select * from pegawai where gaji != 2000000 and gaji != 1250000;
```

idpegawai	namapegawai	namajabatan	email	telepon	tanggalmasuk	idjab	gaji	tunjangan
4994	Faiq	Manajemen	faiq@yahoo.com	081700000015	2000-10-01	1001	1000000	NULL
4995	Yenni	Manajemen	yenni@yahoo.com	081700000015	2000-10-01	1001	1000000	0
4996	Illichin	Manajemen	illichin@yahoo.com	081700000015	2000-09-01	1001	1750000	NULL

```
mysql [praktikum]:
```

2. Tampilkan pegawai yang tunjangannya NULL!

➤ `Select * from pegawai where tunjangan is null;`

```
mysql [praktikum]: select * from pegawai where tunjangan is null;
```

idpegawai	namapegawai	namajabatan	email	telepon	tanggalmasuk	idjab	gaji	tunjangan
4994	Faiq	Manajemen	faiq@yahoo.com	081700000015	2000-10-01	1001	1000000	NULL
4996	Illichin	Manajemen	illichin@yahoo.com	081700000015	2000-09-01	1001	1750000	NULL

```
mysql [praktikum]:
```

3. Tampilkan pegawai yang tunjangannya tidak NULL!

➤ `Select * from pegawai where tunjangan not null;`

```
mysql [praktikum]: select * from pegawai where tunjangan is not null;
```

idpegawai	namapegawai	namajabatan	email	telepon	tanggalmasuk	idjab	gaji	tunjangan
4991	Ferry	Manajemen	ferry@yahoo.com	081700000011	2000-09-01	1001	2000000	100000
4992	Artif	Manajemen	artif@yahoo.com	081700000011	2000-09-01	1002	2000000	100000
4993	Yenni	Manajemen	yenni@yahoo.com	081700000014	2000-10-01	1001	2000000	0
4995	Alisa	Manajemen	alisa@yahoo.com	081700000011	2007-09-01	1001	1750000	0

```
mysql [praktikum]:
```

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

➤ `Select count(idpegawai) from pegawai;`

```
mysql [praktikum]: select count(idpegawai) from pegawai;
```

count(idpegawai)
5

```
mysql [praktikum]:
```

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

➤ `Select sum(gaji) from pegawai;`

```
mysql [praktikum]: select sum(gaji) from pegawai;
```

sum(gaji)
10000000

```
mysql [praktikum]:
```

6. Tampilkan/hitung rata-rata gaji pegawai!

➤ `Select avg(gaji) from pegawai;`

```
mysql [praktikum]: select avg(gaji) from pegawai;
```

avg(gaji)
2000000.000000

```
mysql [praktikum]:
```

7. Tampilkan gaji terkecil!

➤ `Select min(gaji) from pegawai;`

```
mysql [praktikum]: select min(gaji) from pegawai;
```

min(gaji)
1000000

```
mysql [praktikum]:
```

## 9. Tampilkan gaji terbesar!

➤ `Select max(gaji) from pegawai;`

```
variable [praktikum] ▶ select max(gaji) from pegawai;
+-----+
max(gaji) |
+-----+
2000000   |
+-----+
row in set (0.00 sec)
variable [praktikum] ▶
```

Buat table pet dan isi datanya seperti berikut:

name	owner	species	sex	birth	death
Puffball	Diane	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	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

### Langkah-langkah membuat table pet

- Create database praktikum4;
- Use praktikum4;
- Create table pet
- Kemudian isi data sebagai berikut

```

MariaDB [(none)]> create database praktikum4;
Query OK, 1 row affected (0.01 sec)

MariaDB [(none)]> use praktikum4;
Database changed
MariaDB [praktikum4]> create table pet
-> (nama varchar(10) not null,
-> owner varchar(10) not null,
-> species varchar(8) not null,
-> sex varchar(4) null,
-> birth varchar(10) not null,
-> death varchar(10) null);
Query OK, 0 rows affected (0.70 sec)

MariaDB [praktikum4]> desc pet;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nama  | varchar(10) | NO | | NULL | |
| owner | varchar(10) | NO | | NULL | |
| species | varchar(8) | NO | | NULL | |
| sex   | varchar(4) | YES | | NULL | |
| birth | varchar(10) | NO | | NULL | |
| death | varchar(10) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.13 sec)

```

Activate Windows  
Go to Settings to activate Windows.

### Insert into pet

- (nama,owner,species,sex,birth,death)
- Values
- Lalu input data sebagai berikut;

```

MariaDB [praktikum4]> insert into pet
-> (nama,owner,species,sex,birth,death)
-> values
-> ('puffball','diane','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','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 (0.14 sec)
Records: 9  Duplicates: 0  Warnings: 0

```

### Select\*from pet;

```

MariaDB [praktikum4]> select*from pet;
+-----+-----+-----+-----+-----+-----+
| nama  | owner | species | sex | birth      | death      |
+-----+-----+-----+-----+-----+-----+
| puffball | diane | 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  | 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)

```

1. Tampilkan jumlah hewan yang dimiliki setiap owner.

➤ Select owner,count(\*) from pet group by owner;

```
MariaDB [praktikum4]> select owner,count(*) from pet group by owner;
+-----+-----+
| owner | count(*) |
+-----+-----+
| benny | 2        |
| diane | 2        |
| gwen  | 3        |
| harold | 2       |
+-----+-----+
4 rows in set (0.08 sec)
```

2. Tampilkan jumlah hewan berdasarkan spesies.

➤ Select species,count(\*) from pet grup by species;

```
MariaDB [praktikum4]> select species,count(*) from pet group by species;
+-----+-----+
| species | count(*) |
+-----+-----+
| bird    | 2        |
| cat     | 2        |
| dog     | 3        |
| hamster | 1        |
| snake   | 1        |
+-----+-----+
5 rows in set (0.00 sec)
```

3. Tampilkan jumlah hewan berdasarkan jenis kelamin

➤ Select sex,count(\*) from pet group by sex;

```
MariaDB [praktikum4]> select sex,count(*) from pet group by sex;
+-----+-----+
| sex | count(*) |
+-----+-----+
| NULL | 1        |
| f    | 4        |
| m    | 4        |
+-----+-----+
3 rows in set (0.00 sec)
```

4. Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin

➤ Select species,sex,count(\*) from pet group by species,sex;

```
MariaDB [praktikum4]> select species,sex,count(*) from pet group by species,sex;
+-----+-----+-----+
| species | sex | count(*) |
+-----+-----+-----+
| bird    | NULL | 1        |
| bird    | f    | 1        |
| cat     | f    | 1        |
| cat     | m    | 1        |
| dog     | f    | 1        |
| dog     | m    | 2        |
| hamster | f    | 1        |
| snake   | m    | 1        |
+-----+-----+-----+
```

5. Tampilkan jumlah hewan berdasarkan spesis (cat dan dog saja) dan jenis kelamin

**Select species,sex,count(\*) from pet**

- Where species <> 'bird'
- And species <> 'snake'
- And species <> 'sex';

```
MariaDB [praktikum4]> select species,sex,count(*) from pet
-> where species <> 'hamster'
-> and species <> 'bird'
-> and species <> 'snake'
-> group by species,sex;
+-----+-----+
| species | sex | count(*) |
+-----+-----+
| cat     | f   | 1         |
| cat     | m   | 1         |
| dog     | f   | 1         |
| dog     | m   | 2         |
+-----+-----+
4 rows in set (0.07 sec)
```

6. Tampilkan jumlah hewan berdasarkan jenis kelamin yang diketahui saja

**Select species sex,count(\*) from pet**

- Where sex <> 'null'
- Group by sex;

```
MariaDB [praktikum4]> select sex,count(*) from pet
-> where sex <> 'null'
-> group by sex;
+-----+-----+
| sex | count(*) |
+-----+-----+
| f   | 4         |
| m   | 4         |
+-----+-----+
2 rows in set (0.00 sec)
```