

TEKNOLOGI BASIS DATA

Praktikum MySQL pada CMD

Tugas Praktikum 4 Basis Data



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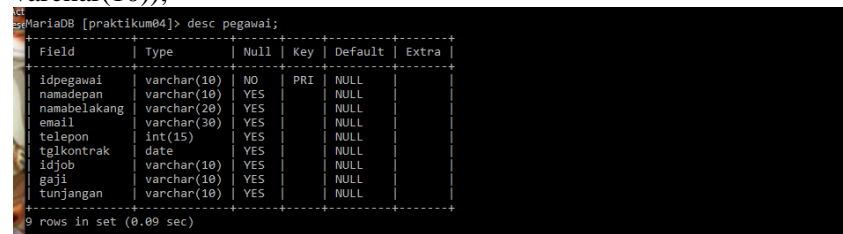
Sekolah Tinggi Teknik Pelita Bangsa

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### A. Membuat tabel

create table pegawai(idpegawai varchar(10), namadepan varchar(10), namabelakang varchar(20), email varchar(30), telepon int(15), tglkontrak date, idjob varchar(10), gaji varchar(10), tunjangan varchar(10));



```
MariaDB [praktikum04]> desc pegawai;
```

Field	Type	Null	Key	Default	Extra
idpegawai	varchar(10)	NO	PRI	NULL	
namadepan	varchar(10)	YES		NULL	
namabelakang	varchar(20)	YES		NULL	
email	varchar(30)	YES		NULL	
telepon	int(15)	YES		NULL	
tglkontrak	date	YES		NULL	
idjob	varchar(10)	YES		NULL	
gaji	varchar(10)	YES		NULL	
tunjangan	varchar(10)	YES		NULL	

9 rows in set (0.00 sec)

### B. Menginput data

Insert into pegawai

(id pegawai, namadepan, namabelakang, email, telepon, tglkontrak, idjob, gaji, tunjangan)

Values

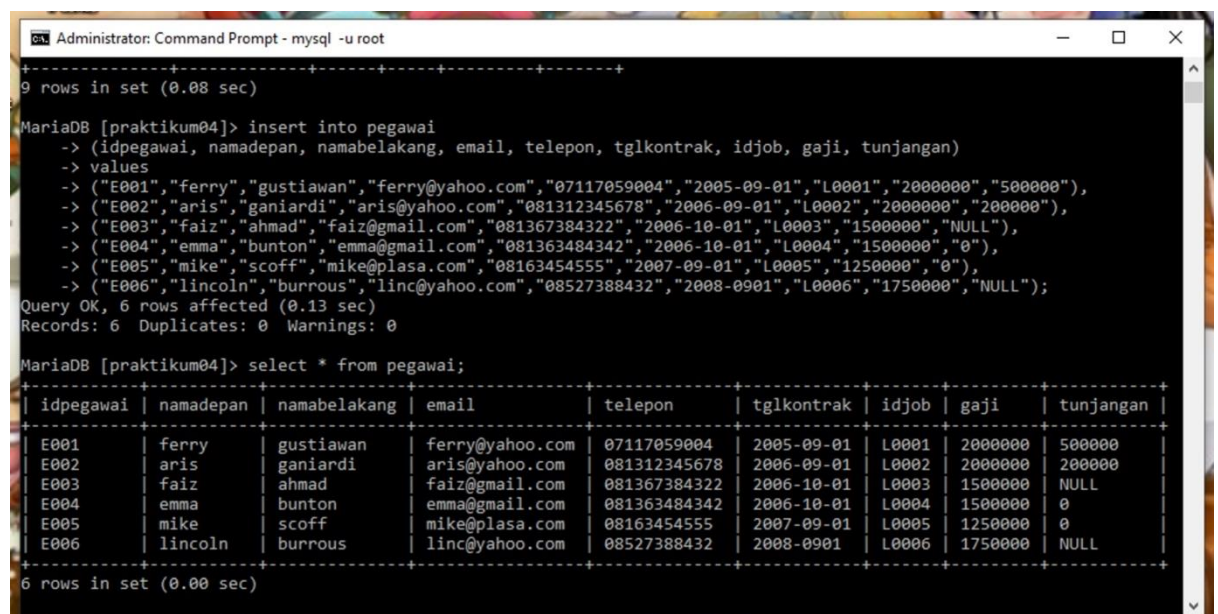
("E001","ferry","gustiawan","ferry@yahoo.com","07117059004","2005-09-01","L0001","2000000","500000"),

("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","150000","NULL"),

("E005","mike","scoff","mike@plasa.com",



```
MariaDB [praktikum04]> 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","scoff","mike@plasa.com","08163454555","2007-09-01","L0005","1250000","0"),
-> ("E006","lincoln","burrous","linc@yahoo.com","08527388432","2008-09-01","L0006","1750000","NULL");
Query OK, 6 rows affected (0.13 sec)
Records: 6 Duplicates: 0 Warnings: 0

MariaDB [praktikum04]> 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	scoff	mike@plasa.com	08163454555	2007-09-01	L0005	1250000	0
E006	lincoln	burrous	linc@yahoo.com	08527388432	2008-09-01	L0006	1750000	NULL

6 rows in set (0.00 sec)

#### 1. Tampilkan pegawai yang gajinya bukan 2000000 dan 1250000

Select \* from pegawai

Where gaji != "2000000"

And gaji != "1250000";

Atau

Select \* from pegawai

Where gaji <> "2000000"

And gaji <> "1250000";

```
Administrator: Command Prompt - mysql -u root
MariaDB [praktikum04]> select * from pegawai
-> where gaji="2000000"
-> and gaji="1250000";
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E003	faiz	ahmad	fariz@gmail.com	2147483647	2006-10-01	L0003	1500000	NULL
E004	emma	bunton	emma@gmail.com	2147483647	2006-10-01	L0004	1500000	0
E005	mike	scoff	mike@plasa.com	2147483647	2007-09-01	L0005	1250000	0
E006	lincoln	burrous	linc@yahoo.com	2147483647	2008-09-01	L0006	1750000	NULL

```
4 rows in set (0.28 sec)
```

Atau seperti ini

```
MariaDB [praktikum04]> select * from pegawai
-> where gaji<> "2000000"
-> and gaji<> "1250000";
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E003	faiz	ahmad	fariz@gmail.com	2147483647	2006-10-01	L0003	1500000	NULL
E004	emma	bunton	emma@gmail.com	2147483647	2006-10-01	L0004	1500000	0
E005	mike	scoff	mike@plasa.com	2147483647	2007-09-01	L0005	1250000	0
E006	lincoln	burrous	linc@yahoo.com	2147483647	2008-09-01	L0006	1750000	NULL

```
4 rows in set (0.06 sec)
```

2. Tampilkan pegawai yang tunjangannya null  
Select \* from pegawai where tunjangan="NULL";

```
MariaDB [praktikum04]> select * from pegawai where tunjangan = "NULL";
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E003	faiz	ahmad	fariz@gmail.com	2147483647	2006-10-01	L0003	1500000	NULL
E006	lincoln	burrous	linc@yahoo.com	2147483647	2008-09-01	L0006	1750000	NULL

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

3. Tampilkan pegawai yang tunjangannya tidak null  
Select \* from pegawai where tunjangan<>"NULL";

```
MariaDB [praktikum04]> select * from pegawai where tunjangan <> "NULL";
```

idpegawai	namadepan	namabelakang	email	telepon	tglkontrak	idjob	gaji	tunjangan
E001	ferry	gustiawan	ferry@yahoo.com	2147483647	2005-09-01	L0001	2000000	500000
E002	aris	guniardi	aris@yahoo.com	2147483647	2006-09-01	L0002	2000000	200000
E004	emma	bunton	emma@gmail.com	2147483647	2006-10-01	L0004	1500000	0
E005	mike	scoff	mike@plasa.com	2147483647	2007-09-01	L0005	1250000	0

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

4. Tampilkan/hitung jumlah baris/record tabel pegawai  
Select count(\*) from pegawai;

```
MariaDB [praktikum04]> select count(*) from pegawai;
```

count(*)
6

```
1 row in set (0.00 sec)
MariaDB [praktikum04]> _
```

5. Tampilkan/hitung jumlah total gaji di tabel pegawai  
Select sum (gaji) from pegawai;

```
MariaDB [praktikum04]> select sum(gaji) from pegawai;
```

sum(gaji)
10000000

```
1 row in set (0.00 sec)
MariaDB [praktikum04]> _
```

Atau bisa juga menggunakan

Select sum(gaji) as jumlah from pegawai;

```
MariaDB [praktikum04]> select sum(gaji) as jumlah from pegawai;
```

jumlah
10000000

```
1 row in set (0.00 sec)
MariaDB [praktikum04]> _
```

6. Tampilkan atau hitung rata – rata gaji  
Select avg (gaji) from pegawai;

```
ct
MariaDB [praktikum04]> select avg (gaji) from pegawai;
+-----+
| avg (gaji) |
+-----+
| 1666666.666666667 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]> _
```

Atau

Select avg (gaji) as rerata from pegawai;

```
ct
MariaDB [praktikum04]> select avg (gaji) as rerata from pegawai;
+-----+
| rerata |
+-----+
| 1666666.666666667 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]>
```

## 7. Tampilkan gaji terkecil

Select min(gaji) from pegawai;

```
ct
MariaDB [praktikum04]> select min(gaji) from pegawai;
+-----+
| min(gaji) |
+-----+
| 1250000 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]>
```

Atau

Select min(gaji) as termurah from pegawai;

```
ct
MariaDB [praktikum04]> select min(gaji) as termurah from pegawai;
+-----+
| termurah |
+-----+
| 1250000 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]>
```

## 8. Tampilkan gaji terbesar

Select max(gaji) from pegawai;

```
ct
MariaDB [praktikum04]> select max(gaji) from pegawai;
+-----+
| max(gaji) |
+-----+
| 2000000 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]>
```

Atau

Select max(gaji) as termahal from pegawai;

```
ct
MariaDB [praktikum04]> select max(gaji) as termahal from pegawai;
+-----+
| termahal |
+-----+
| 2000000 |
+-----+
1 row in set (0.00 sec)

MariaDB [praktikum04]>
```

# Tabel pet

## A. Membuat tabel

Create table pet(name varchar(10), owner varchar(10), species varchar(10), sex varchar(5), birth date, death date);

```
Administrator: Command Prompt - mysql -u root
Microsoft Windows [Version 10.0.17763.202]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>cd C:\xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 16
Server version: 10.1.10-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2015, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use praktikum04;
Database changed
MariaDB [praktikum04]> create table pet(name varchar(10), owner varchar(10), species varchar(10), sex varchar(5),
birth date, death date);
Query OK, 0 rows affected (0.65 sec)
```

```
MariaDB [praktikum04]> desc pet;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(10) | YES |  | NULL |  |
| owner | varchar(10) | YES |  | NULL |  |
| species | varchar(10) | YES |  | NULL |  |
| sex   | varchar(5) | YES |  | NULL |  |
| birth | date       | YES |  | NULL |  |
| death | date       | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.03 sec)
```

## B. Menginput datanya

Insert into pet

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”),

```
Administrator: Command Prompt - mysql -u root

MariaDB [praktikum04]> 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", "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, 8 warnings (0.18 sec)
Records: 9 Duplicates: 0 Warnings: 8

MariaDB [praktikum04]> select * from pet;
+-----+-----+-----+-----+-----+-----+
| name  | owner | species | sex | birth      | death      |
+-----+-----+-----+-----+-----+-----+
| puffball | diane | hamster | F   | 1999-03-03 | 0000-00-00 |
| claws   | gwen  | cat     | M   | 1994-03-17 | 0000-00-00 |
| fluffy  | harold | cat     | F   | 1993-02-04 | 0000-00-00 |
| buffy   | harold | dog     | F   | 1989-05-13 | 0000-00-00 |
| fang    | benny | dog     | M   | 1990-08-27 | 0000-00-00 |
| bowser  | diane | dog     | M   | 1989-08-31 | 1995-07-29 |
| chirpy  | gwen  | bird    | F   | 1998-09-11 | 0000-00-00 |
| whistler | gwen  | bird    | NULL | 1997-12-09 | 0000-00-00 |
| slim    | benny | snake   | M   | 1996-04-29 | 0000-00-00 |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

1. Tampilkan jumlah hewan yang dimiliki setiap owner

Select owner, count(name) as total from pet group by owner;

```
MariaDB [praktikum04]> select owner, count(name) as total from pet group by owner;
```

owner	total
benny	2
diane	2
gwen	3
harold	2

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

2. Tampilkan jumlah hewan berdasarkan spesies  
Select species, count(name) as total from pet group by species;

```
MariaDB [praktikum04]> select species, count(name) as total from pet group by species;
```

species	total
bird	2
cat	2
dog	3
hamster	1
snake	1

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

```
MariaDB [praktikum04]> _
```

3. Tampilkan jumlah hewan berdasarkan jenis kelamin  
Select sex, count(name) as total from pet group by sex;

```
MariaDB [praktikum04]> select sex, count(name) as total from pet group by sex;
```

sex	total
F	4
M	4
NULL	1

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

```
MariaDB [praktikum04]> _
```

4. Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin  
Select species, sex, count(name) as total from pet group by species, sex;

```
MariaDB [praktikum04]> select species, sex, count(name) as total from pet group by species, sex;
```

species	sex	total
bird	F	1
bird	NULL	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  
Select species, sex, count(name) as total from pet group by species, sex having pet.species="cat" or pet.species="dog";

```
MariaDB [praktikum04]> select species, sex, count(name) as total from pet group by species, sex having pet.species="cat" or pet.species="dog";
```

species	sex	total
cat	F	1
cat	M	1
dog	F	1
dog	M	2

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

6. Tampilkan jumlah hewan berdasarkan jenis kelamin yang diketahui saja  
Select species, count(name) as total from pet group by species;

```
MariaDB [praktikum04]> select species, count(name) as total from pet group by species;
```

```
+-----+-----+  
| species | total |  
+-----+-----+  
| bird   | 2     |  
| cat    | 2     |  
| dog    | 3     |  
| hamster| 1     |  
| snake  | 1     |  
+-----+-----+
```

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

```
MariaDB [praktikum04]>
```