

PRAKTIKUM 4

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Langkah-Langkah Praktikum Beserta Outputnya

- Membuat database

```
create database Latihan03;
```

- Masuk ke database

```
use Latihan03;
```

- Membuat table pegawai

```
create table pegawai (  
    idpegawai varchar(20),  
    nama_depan varchar(20),  
    nama_belakang varchar(20),  
    email varchar(20),  
    telepon varchar(20),  
    tgl_kontrak varchar(20),  
    id_job varchar(20),  
    gaji varchar(20),  
    tunjangan varchar(20)  
);
```

- Mengisi table pegawai

```
insert into mahasiswa ( idpegawai, nama_depan, nama_belakang, email, telepon,  
    tgl_kontrak, id_job, gaji, tunjangan) value  
    ('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','ahnad','faiz@gmail.com','081367384322','2006-10-  
01','L0003','1500000','NULL'),  
    ('E004','emna','bunton','enna@gmail.com','081363484342','2006-10-  
01','L0004','1500000','9'),  
    ('E005','mike','scoff','mike@plasa.com','08163454555','2007-09-  
01','L0005','1250000','9'),  
    ('E006','lincoln','burrows','linc@yahoo.com','08527388432','2008-09-  
01','L0006','1750000','NULL');
```

Output

| | idpegawai | nama_depan | nama_belakang | email | telepon | tgl_kontrak | id_job | 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 | ahnad | faiz@gmail.com | 081367384322 | 2006-10-01 | L0003 | 1500000 | NULL |
| | E004 | emna | bunton | enna@gmail.com | 081363484342 | 2006-10-01 | L0004 | 1500000 | 9 |
| ▶ | E005 | mike | scoff | mike@plasa.com | 08163454555 | 2007-09-01 | L0005 | 1250000 | 9 |
| | E006 | lincoln | burrows | linc@yahoo.com | 08527388432 | 2008-09-01 | L0006 | 1750000 | NULL |

- Tampilkan pegawai yang gajinya bukan 2.000.000 dan 1.250.000

```
select *from pegawai where gaji <>'2000000' and gaji <>'1750000';
```

Output

| | idpegawai | nama_depan | nama_belakang | email | telepon | tgl_kontrak | id_job | gaji | tunjangan |
|---|-----------|------------|---------------|----------------|--------------|-------------|--------|---------|-----------|
| ▶ | E003 | faiz | ahnad | faiz@gmail.com | 081367384322 | 2006-10-01 | L0003 | 1500000 | NULL |
| | E004 | emna | bunton | enna@gmail.com | 081363484342 | 2006-10-01 | L0004 | 1500000 | 9 |
| | E005 | mike | scoff | mike@plasa.com | 08163454555 | 2007-09-01 | L0005 | 1250000 | 9 |

- Tampilkan pegawai yang tunjangan null

```
select *from pegawai where tunjangan = 'NULL';
```

Output

| | idpegawai | nama_depan | nama_belakang | email | telepon | tgl_kontrak | id_job | gaji | tunjangan |
|---|-----------|------------|---------------|----------------|--------------|-------------|--------|---------|-----------|
| ▶ | E003 | faiz | ahnad | faiz@gmail.com | 081367384322 | 2006-10-01 | L0003 | 1500000 | NULL |
| | E006 | lincoln | burrows | linc@yahoo.com | 08527388432 | 2008-09-01 | L0006 | 1750000 | NULL |

- Tampilkan pegawai yang tunjangannya tidak null

```
select *from pegawai where tunjangan <> 'NULL';
```

Output

| | idpegawai | nama_depan | nama_belakang | email | telepon | tgl_kontrak | id_job | 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 | emna | bunton | enna@gmail.com | 081363484342 | 2006-10-01 | L0004 | 1500000 | 9 |
| | E005 | mike | scoff | mike@plasa.com | 08163454555 | 2007-09-01 | L0005 | 1250000 | 9 |

- Tampilkan/hitung jumlah baris/record tabel pegawai

```
select count(idpegawai) from pegawai;
```

Output

| | count(idpegawai) |
|---|------------------|
| ▶ | 6 |

- Tampilkan/hitung jumlah total gaji di table pegawai

```
select sum(gaji) from pegawai;
```

Output

| | sum(gaji) |
|---|-----------|
| ▶ | 10000000 |

- Tampilkan/hitung rata-rata gaji pegawai

```
select avg(gaji) from pegawai;
```

Output

| |
|--------------------|
| avg(gaji) |
| 1666666.6666666667 |

- Tampilkan gaji terkecil

```
select min(gaji) from pegawai;
```

Output

| |
|-----------|
| min(gaji) |
| 1250000 |

- Tampilkan gaji terbesar

```
select max(gaji) from pegawai;
```

Output

| |
|-----------|
| max(gaji) |
| 2000000 |

❖ Praktikum Bagian Data Hewan

- Buat table Hewan dan isi datanya

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE  
('p1','puffball','Diane','Hamster','f');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p2','claws','Gwen','cat','m');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p3','fluffy','Haro 1d','cat','f');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p4','buffy','Haro 1d','dog','f');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p5','fang','Benny','dog','m');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p6','browser','Diane','dog','m');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p7','chirpy','Gwen','bird','f');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE  
('p8','whistle','Gwen','bird','null');
```

```
INSERT INTO `hewan` (`id`,`nama`,`pemilik`,`spesies`,`sex`) VALUE ('p9','slim','Benny','snake','m');
```

Output

| | id | nama | pemilik | spesies | sex |
|---|----|----------|---------|---------|------|
| ▶ | p1 | puffball | Diane | Hamster | f |
| | p2 | claws | Gwen | cat | m |
| | p3 | fluffy | Haro 1d | cat | f |
| | p4 | buffy | Haro 1d | dog | f |
| | p5 | fang | Benny | dog | m |
| | p6 | browser | Diane | dog | m |
| | p7 | chirpy | Gwen | bird | f |
| | p8 | whistlet | Gwen | bird | null |
| | p9 | slim | Benny | snake | m |

- Tampilkan jumlah hewan yang dimiliki setiap owner

```
select pemilik, count(pemilik) as jumlah from hewan group by pemilik;
```

Output

| | pemilik | jumlah |
|---|---------|--------|
| ▶ | Diane | 2 |
| | Gwen | 3 |
| | Haro 1d | 2 |
| | Benny | 2 |

- Tampilkan jumlah hewan berdasarkan spesies

```
select spesies, count(spesies) as jumlah from hewan group by spesies;
```

Output

| | spesies | jumlah |
|---|---------|--------|
| ▶ | Hamster | 1 |
| | cat | 2 |
| | dog | 3 |
| | bird | 2 |
| | snake | 1 |

- Tampilkan jumlah hewan berdasarkan jenis kelamin

```
select sex, count(sex) as jumlah from hewan group by sex;
```

Output

| | sex | jumlah |
|---|------|--------|
| ▶ | f | 4 |
| | m | 4 |
| | null | 1 |

- Tampilkan jumlah hewan berdasarkan spesies dan jenis kelamin

```
select spesies,sex, count(sex), as jumlah from hewan group by sex, spesies;
```

Output

| | spesies | sex | count(sex) | jumlah |
|---|---------|------|------------|--------|
| ▶ | Hamster | f | 1 | 1 |
| | cat | m | 1 | 1 |
| | cat | f | 1 | 1 |
| | dog | f | 1 | 1 |
| | dog | m | 2 | 2 |
| | bird | f | 1 | 1 |
| | bird | null | 1 | 1 |
| | snake | m | 1 | 1 |

- Tampilkan jumlah hewan berdasarkan spesies(cat, dan dog saja) dan tampilkan jenis kelamin

```
select spesies,sex, count(*) as jumlah from hewan where spesies ='dog' or spesies = 'cat' group by sex, spesies;
```

Output

| | spesies | sex | jumlah |
|---|---------|-----|--------|
| ▶ | cat | m | 1 |
| | cat | f | 1 |
| | dog | f | 1 |
| | dog | m | 2 |

- Tampilkan jumlah hewan berdasarkan jenis kelamin yang diketahui saja

```
select spesies,sex, count(*) as jumlah from hewan where spesies <> 'null' group by sex, spesies;
```

Output

| | spesies | sex | jumlah |
|---|---------|-----|--------|
| ▶ | Hamster | f | 1 |
| | cat | m | 1 |
| | cat | f | 1 |
| | dog | f | 1 |
| | dog | m | 2 |
| | bird | f | 1 |
| | snake | m | 1 |

➤ Kesimpulan

Dalam penulisan sebuah query SQL, kita dapat menghindari kesalahan penulisan data, sehingga konsistensi dan integritas dari sebuah data dapat terjaga dengan baik untuk digunakan pada proses selanjutnya. performa dari database juga dapat ditingkatkan, maka jumlah kesalahan yang mungkin terjadi dapat berkurang. Salah satu keuntungan lainnya adalah dapat mencegah pengguna lain untuk memasukkan data yang tidak sah pada kolom tertentu.