

# Latihan 1

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# 1. Pembuatan Database dan Tabel

```
mysql -u root -p
create database latihan1;
use latihan1;

CREATE TABLE Countries_T
(country_id int(5) NOT NULL,
country_name VARCHAR(25) NOT NULL,
CONSTRAINT Countries_PK PRIMARY KEY (country_id)
);

CREATE TABLE Locations_T
(location_id int(5) NOT NULL,
street_address varchar(100),
postal_code int(7),
city varchar(25),
state_province varchar(25),
country_id int(5),
CONSTRAINT Locations_PK PRIMARY KEY (location_id),
CONSTRAINT Country_FK FOREIGN KEY (country_id)
REFERENCES Countries_T (country_id)
);

CREATE TABLE Departments_T
(department_id int(5) NOT NULL,
department_name VARCHAR(25),
location_id int(5),
CONSTRAINT Departments_PK PRIMARY KEY (department_id),
CONSTRAINT Locations_FK FOREIGN KEY (location_id)
REFERENCES Locations_T (location_id)
);
```

## 2. Pembuatan Data Tabel

### 2.1. Pembuatan Data Tabel Countries

```
insert into countries_t values (1,"United States");
insert into countries_t values (20,"Egypt");
insert into countries_t values (211,"South Sudan");
insert into countries_t values (212,"Morocco");
insert into countries_t values (213,"Algeria");
insert into countries_t values (33,"France");
insert into countries_t values (34,"Spain");
insert into countries_t values (60,"Malaysia");
insert into countries_t values (62,"Indonesia");
insert into countries_t values (65,"Singapore");
```

## 2.2. Pembuatan Data Table Locations

```
insert into locations_t values (1001,"Acampo Street",95220,"Acampo","California",1);
insert into locations_t values (1002,"Acton Street",93510,"Acton","California",1);
insert into locations_t values (1003,"Google Street",94042,"Mountain
View","California",1);

insert into locations_t values (1004,"Jl. Candi Mendut Raya Blok C",17111,"Bekasi
Timur","Jawa Barat",62);
insert into locations_t values (1005,"Jl. KH Agus Salim. Ruko Premier Serenity
",17112,"Bekasi Timur","Jawa Barat",62);
insert into locations_t values (1006,"Jl. Indra Rawa Lumbu ",17112,"Bekasi
Timur","Jawa Barat",62);

insert into locations_t values (1007,"Jl. Kelantan Raya",15000,"Kota
Kelantan","Kelantan",60);
insert into locations_t values (1008,"Jl. Raya Selangor ",40000,"Selangor
Kota","Selangor",60);
insert into locations_t values (1009,"Jl. Johor Bahru Raya ",80000,"Johor
Kota","Johor",60);

insert into locations_t values (1010,"Jl. Orchad Road",31462,"Singapore
Kota","Singapore",65);
```

## 2.3. Pembuatan Data Tabel Departments

```
insert into departments_t values (3001,"Police Department",1003);
insert into departments_t values (3002,"Fire Department",1003);
insert into departments_t values (3003,"Public Health Department",1003);

insert into departments_t values (3004,"Kantor Kecamatan",1004);
insert into departments_t values (3005,"Balai Pelatihan Ketenaga Kerjaan",1005);
insert into departments_t values (3006,"Radiologi Bekasi Timur",1006);
```

## 2.4. Query Database

- Menampilkan data dari tabel dengan menggunakan operator perbandingan ( $>$ ,  $<$ ,  $\geq$ ,  $\leq$ ,  $=$ )

```
select country_id "Kode Negara", country_name "Nama Negara" from countries_t where
country_id > 60;
+-----+-----+
| Kode Negara | Nama Negara |
+-----+-----+
|       62 | Indonesia    |
|      65 | Singapore    |
|    211 | South Sudan |
|   212 | Morocco      |
|   213 | Algeria      |
+-----+-----+
5 rows in set (0.00 sec)

select country_id "Kode Negara", country_name "Nama Negara" from countries_t where
country_id < 30;
+-----+-----+
| Kode Negara | Nama Negara |
+-----+-----+
|        1 | United States |
|      20 | Egypt          |
+-----+-----+
2 rows in set (0.00 sec)

select country_id "Kode Negara", country_name "Nama Negara" from countries_t where
country_id >= 200;
+-----+-----+
| Kode Negara | Nama Negara |
+-----+-----+
|    211 | South Sudan |
|   212 | Morocco      |
|   213 | Algeria      |
+-----+-----+
3 rows in set (0.00 sec)

select country_id "Kode Negara", country_name "Nama Negara" from countries_t where
country_id <= 100;
+-----+-----+
| Kode Negara | Nama Negara |
+-----+-----+
|        1 | United States |
|      20 | Egypt          |
|     33 | France         |
|     34 | Spain          |
|     60 | Malaysia       |
+-----+-----+
```

```
|       62 | Indonesia   |
|       65 | Singapore  |
+-----+-----+
7 rows in set (0.00 sec)
```

```
select country_id "Kode Negara", country_name "Nama Negara" from countries_t where
country_name="Indonesia";
```

```
+-----+-----+
| Kode Negara | Nama Negara |
+-----+-----+
|       62 | Indonesia   |
+-----+-----+
1 row in set (0.01 sec)
```

- Menampilkan data dari tabel dengan menggunakan operator AND, OR, dan NOT

```
select * from Departments_T where department_id=3002 AND location_id=1003;
```

```
+-----+-----+
| department_id | department_name | location_id |
+-----+-----+
|       3002 | Fire Department |      1003 |
+-----+-----+
1 row in set (0.00 sec)
```

```
select * from Departments_T where department_id=3002 OR location_id=1004;
```

```
+-----+-----+
| department_id | department_name | location_id |
+-----+-----+
|       3002 | Fire Department |      1003 |
|       3004 | Kantor Kecamatan |     1004 |
+-----+-----+
2 rows in set (0.00 sec)
```

```
select * from Departments_T where location_id NOT IN(1003);
```

```
+-----+-----+
| department_id | department_name           | location_id |
+-----+-----+
|       3004 | Kantor Kecamatan          |      1004 |
|       3005 | Balai Pelatihan Ketenaga |     1005 |
|       3006 | Radiologi Bekasi Timur  |     1006 |
+-----+-----+
3 rows in set (0.01 sec)
```

- Menampilkan data dari tabel dengan menggunakan operator IN

```
select street_address "Nama jalan", state_province Provinsi from Locations_T where
country_id IN(62,65);

+-----+-----+
| Nama jalan | Provinsi |
+-----+-----+
| Jl. Candi Mendut Raya Blok C | Jawa Barat |
| Jl. KH Agus Salim. Ruko Premier Serenity | Jawa Barat |
| Jl. Indra Rawa Lumbu | Jawa Barat |
| Jl. Orchad Road | Singapore |
+-----+-----+
4 rows in set (0.00 sec)
```

- Menampilkan data dari tabel dengan menggunakan operator LIKE

```
select street_address "Nama jalan", state_province Provinsi from Locations_T where
state_province LIKE "%el%";

+-----+-----+
| Nama jalan | Provinsi |
+-----+-----+
| Jl. Kelantan Raya | Kelantan |
| Jl. Raya Selangor | Selangor |
+-----+-----+
2 rows in set (0.01 sec)
```

- Tampilkan data dari tabel departments dan locations

```

select dt.location_id,department_name,street_address,state_province from Departments_T
dt inner join Locations_T lt on dt.location_id=lt.location_id;

+-----+
+-----+
| location_id | department_name           | street_address
| state_province |
+-----+
+-----+
|   1003 | Police Department      | Google Street
| California   |
|   1003 | Fire Department        | Google Street
| California   |
|   1003 | Public Health Department | Google Street
| California   |
|   1004 | Kantor Kecamatan       | Jl. Candi Mendut Raya Blok C
| Jawa Barat   |
|   1005 | Balai Pelatihan Ketenaga | Jl. KH Agus Salim. Ruko Premier Serenity
| Jawa Barat   |
|   1006 | Radiologi Bekasi Timur  | Jl. Indra Rawa Lumbu
| Jawa Barat   |
+-----+
+-----+
6 rows in set (0.01 sec)

```

- Tampilkan data dari tabel departments, locations dan countries

```

select country_name,department_name,street_address,state_province from Countries_T ct
inner join Locations_T lt on ct.country_id=lt.country_id inner join Departments_T dt
on dt.location_id=lt.location_id;
+-----+
+-----+
| country_name | department_name           | street_address
| state_province |
+-----+
+-----+
| United States | Police Department      | Google Street
| California   |
| United States | Fire Department        | Google Street
| California   |
| United States | Public Health Department | Google Street
| California   |
| Indonesia    | Kantor Kecamatan       | Jl. Candi Mendut Raya Blok C
| Jawa Barat   |
| Indonesia    | Balai Pelatihan Ketenaga | Jl. KH Agus Salim. Ruko Premier Serenity
| Jawa Barat   |
| Indonesia    | Radiologi Bekasi Timur  | Jl. Indra Rawa Lumbu
| Jawa Barat   |
+-----+
+-----+
6 rows in set (0.00 sec)

```