

Database Week #1

Menjelajah dunia database dengan SQL bersama MyEduSolve

Database dan DBMS

Bedanya apa?



Database sebuah tempat untuk menyimpan data dalam bentuk tabel



Database Management System suatu aplikasi untuk mengatur data pada database

Pembagian SQL

Data
Definition
Language

- Create
- Drop
- Alter

Data
Manipulation
Language

- Insert
- Update
- Delete

Data Query Language

Select

Data Control Language

- Grant
- Revoke
- Commit
- Rollback



DDL Examples

Membuat database

create database myDatabase;

Mengatur kolom bersamaan

```
alter table product
add column expired timestamp,
rename column id to id_barang,
modify price float after quantity;
```

Membuat table baru

```
create table product(
  id varchar(10) not null,
  name varchar(100) not null,
  description text,
  price float not null,
  quantity int not null default 0,
  created_at timestamp not null default current_timestamp
)
```



DML Examples

Menambahkan data baru

insert into product(id, name, description, price, quantity)
values ('P0001', 'Ayam kebakar Manis', 'Pasti enak', 10000, 10);

Memperbarui data yang ada

update product
set kategori = 'Makanan' where id = 'P0001';

Menghapus data

delete from product where id = 'P0001'



DQL Examples

Select dengan and / or

select *
from product
where quantity > 5 and price > 10000;

Select dengan fungsi aritmetika

select price=(price*(1/10))
from product;

Select dengan like

select Code as 'kode_negara',
region as 'wilayah'
from country
where Region like ('%Europe%');

Select dengan fungsi agregat

select max(Population)
as 'Populasi terbesar'
from city;



DQL Examples(2)

Select dengan urutan dan limit

select name, (Population/SurfaceArea) as 'Densitas'
from country
where Continent = 'Asia'
order by (Population/SurfaceArea) desc
limit 5;

Select dengan grouping

select Continent, count(name) as 'Jumlah negara'
from country
group by Continent
order by count(name) desc;

