

Database Creation and Management

```
lookup.KeyValue  
f.constant(['em  
=tf.constant([G  
.lookup.StaticV  
_buckets=5)
```

Overview

1. Create, Manipulate Database and Table
2. Importing Data
3. 'SELECT', Filtering Data 'WHERE'
4. Logic Operators: AND, OR, NOT, and IN
5. NULL Values



Create, Manipulate Database and Table

```
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```

Create Database

- Buat Database

```
1 CREATE DATABASE perusahaan;
```

- Hapus Database

```
DROP DATABASE perusahaan;
```

Create Table

- Buat Tabel

```
1 CREATE TABLE karyawan (  
2     id_karyawan varchar(50),  
3     nama varchar(100),  
4     jabatan varchar(50),  
5     tanggal_masuk date,  
6     email varchar(100),  
7     no_hp varchar(15)  
8 );
```

- Hapus Tabel

```
DROP TABLE karyawan;
```

Manipulate Database and Table

- Tambah kolom ke tabel

```
ALTER TABLE karyawan ADD COLUMN alamat TEXT;
```

- Hapus kolom dari tabel

```
ALTER TABLE karyawan DROP COLUMN alamat;
```

- Ubah nama kolom

```
ALTER TABLE karyawan RENAME COLUMN no_hp TO nomor_telepon;
```

- Ubah tipe data kolom

```
ALTER TABLE karyawan ALTER COLUMN email TYPE TEXT;
```

Manipulate Database and Table

Manipulasi Data dalam Tabel

- **Tambah Data**

```
INSERT INTO
    karyawan (id_karyawan, nama, jabatan, tanggal_masuk, email,
    nomor_telepon)
VALUES
    ('K-01', 'Andi Wijaya', 'Software Engineer', '2023-03-01',
    'andi@email.com', '081223344556');
```

- **Ubah Data**

```
UPDATE
    karyawan
SET
    nomor_telepon = '081223344556'
WHERE
    nama = 'Andi Wijaya';
```

- **Hapus Data**

```
DELETE FROM karyawan WHERE nama = 'Andi Wijaya';
```

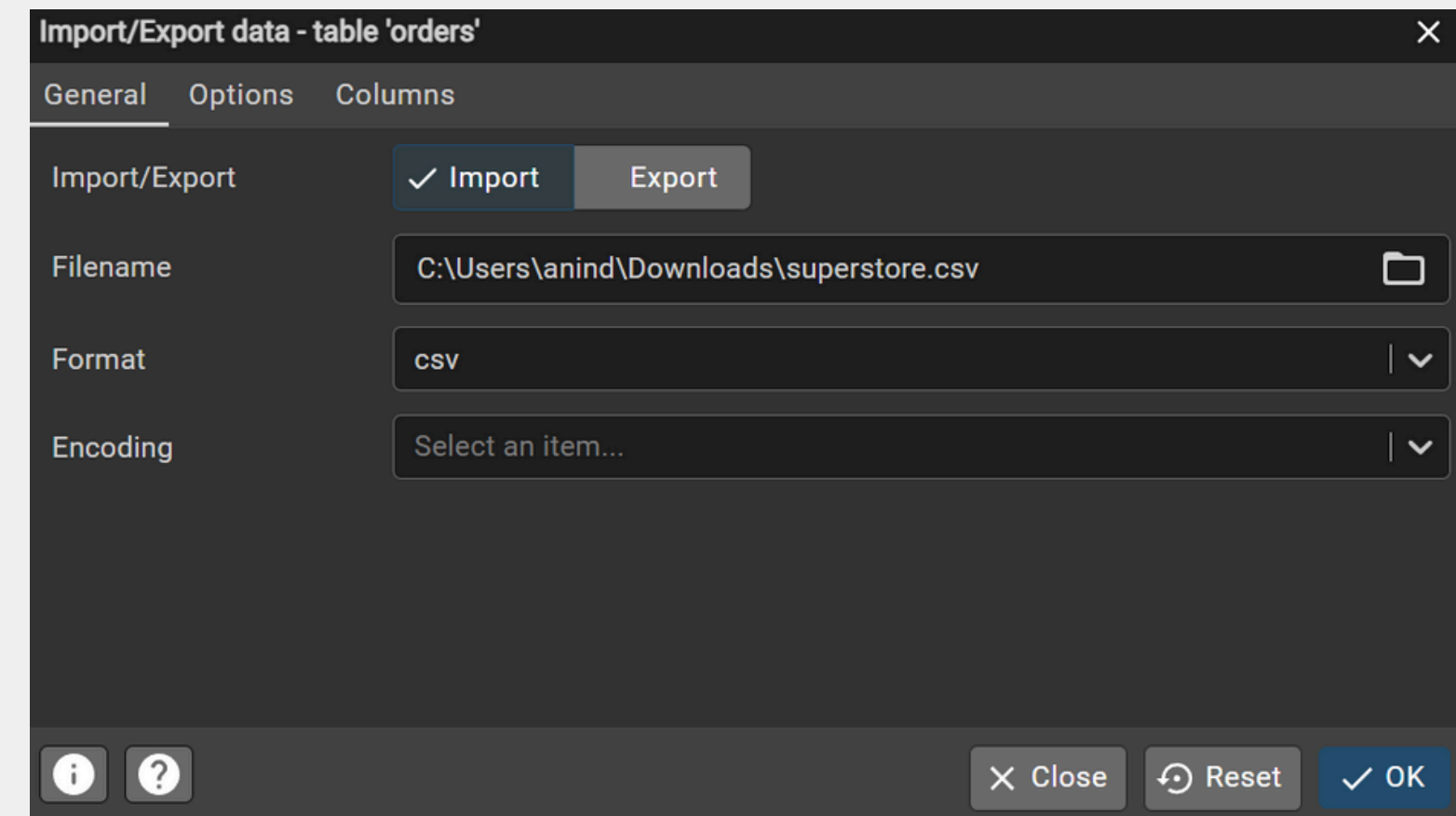
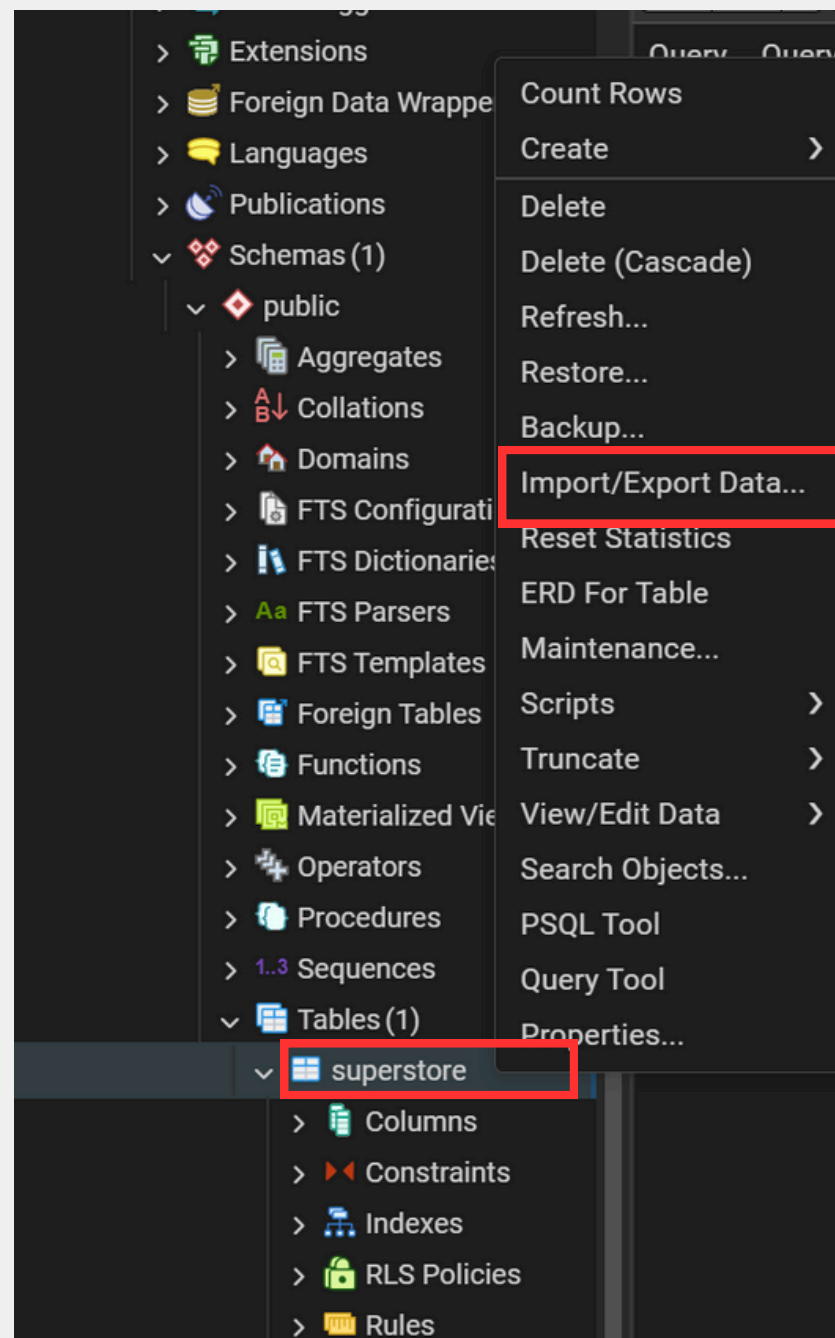


Importing Data

```
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```

Importing Data

Buat tabel terlebih dahulu lalu klik kanan dan pilih import/export data



Pilih file csv yang akan di import



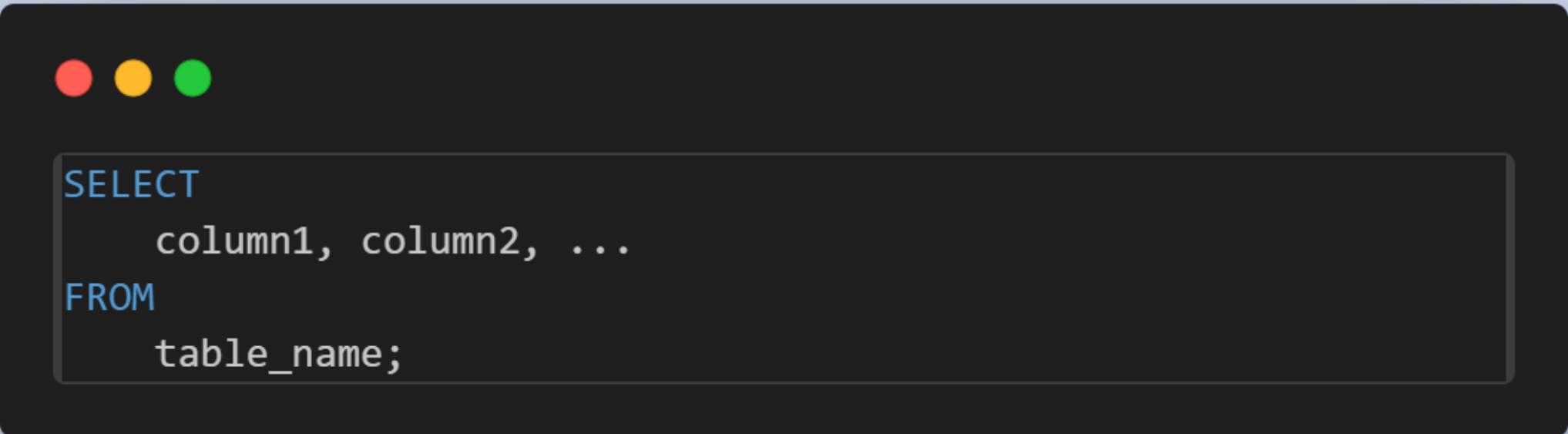
‘SELECT’, Filtering Data

‘WHERE’

```
lookup.KeyValue  
f.constant(['em  
=tf.constant([G  
.lookup.StaticV  
_buckets=5)
```

Selecting Columns with SELECT FROM

- Syntax





```
SELECT  
    column1, column2, ...  
FROM  
    table_name;
```

Selecting Columns with SELECT FROM

```
SELECT
  city, region
FROM
  superstore;
```

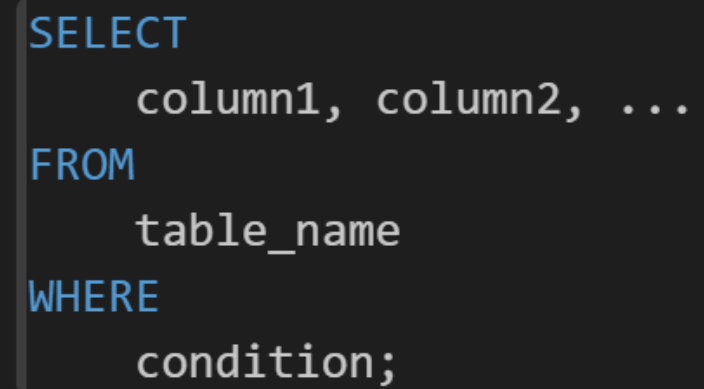
***untuk menampilkan semua kolom**

```
SELECT * FROM Customers;
```

	city character varying 	region character varying 
1	Henderson	South
2	Henderson	South
3	Los Angeles	West
4	Fort Lauderdale	South
5	Fort Lauderdale	South
6	Los Angeles	West
7	Los Angeles	West
8	Los Angeles	West
9	Los Angeles	West
10	Los Angeles	West

Filtering Data with WHERE



- Syntax

A diagram showing the syntax for filtering data with the WHERE clause. It features a dark gray rectangular box with rounded corners, containing SQL code. Above the box are three colored circles (red, yellow, green) representing window control buttons. The box is set against a light blue background with concentric circles, which is itself on a darker blue background.

```
SELECT
    column1, column2, ...
FROM
    table_name
WHERE
    condition;
```

Filtering Data with WHERE

```
select
  customer_name, city
from
  superstore
where
  city = 'Los Angeles';
```

	customer_name 	city 
1	Darrin Van Huff	Los Angeles
2	Brosina Hoffman	Los Angeles
3	Brosina Hoffman	Los Angeles
4	Brosina Hoffman	Los Angeles
5	Brosina Hoffman	Los Angeles
6	Brosina Hoffman	Los Angeles
7	Brosina Hoffman	Los Angeles
8	Brosina Hoffman	Los Angeles
9	Eric Hoffmann	Los Angeles
10	Eric Hoffmann	Los Angeles

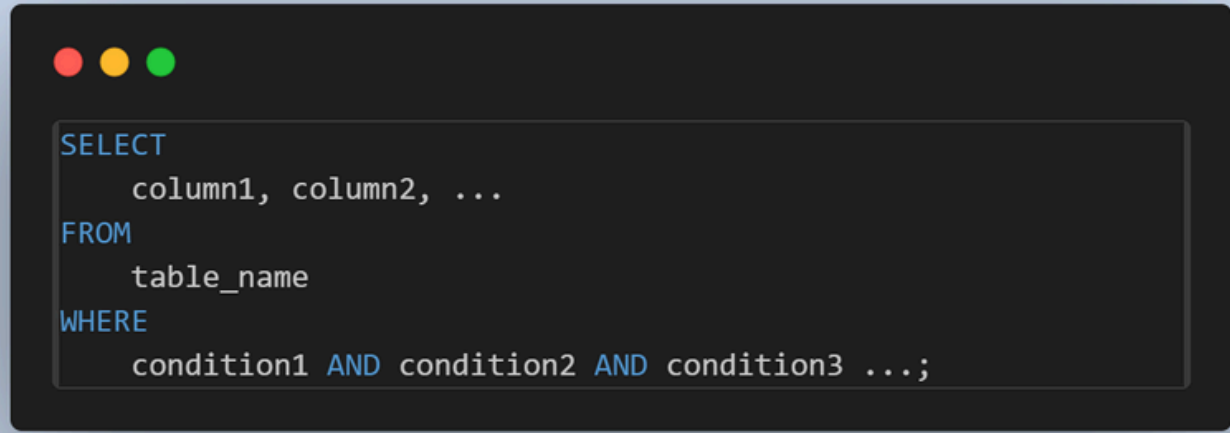
Logic Operators: AND, OR, NOT, and IN

```
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```

Operator AND, OR

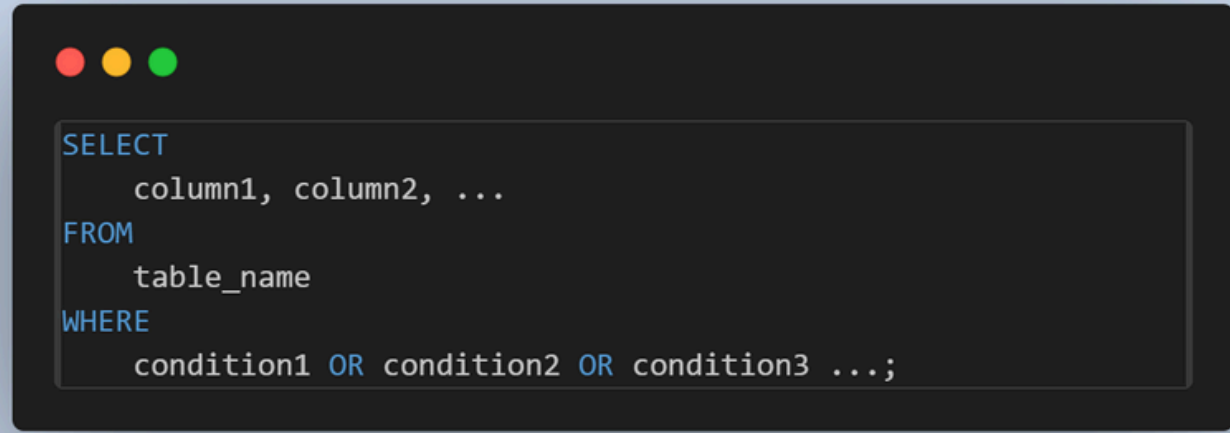
- Syntax

AND

A dark-themed code editor window with three colored window control buttons (red, yellow, green) in the top-left corner. It contains a SQL query template for the AND operator.

```
SELECT
    column1, column2, ...
FROM
    table_name
WHERE
    condition1 AND condition2 AND condition3 ...;
```

OR

A dark-themed code editor window with three colored window control buttons (red, yellow, green) in the top-left corner. It contains a SQL query template for the OR operator.

```
SELECT
    column1, column2, ...
FROM
    table_name
WHERE
    condition1 OR condition2 OR condition3 ...;
```

- Operator AND menampilkan jika semua kondisi bernilai TRUE.
- Operator OR menampilkan jika salah satu kondisi bernilai TRUE.



Operator AND

```
select
  customer_name, segment, country
from
  superstore
where
  segment = 'Corporate' AND country = 'United States';
```

	customer_name character varying 	segment character varying 	country character varying 
1	Darrin Van Huff	Corporate	United States
2	Ken Black	Corporate	United States
3	Ken Black	Corporate	United States
4	Gene Hale	Corporate	United States
5	Gene Hale	Corporate	United States
6	Linda Cazamias	Corporate	United States
7	Ruben Ausman	Corporate	United States
8	Erin Smith	Corporate	United States
9	Odella Nelson	Corporate	United States
10	Odella Nelson	Corporate	United States

Operator OR

```
select
  customer_name, category
from
  superstore
where
  category = 'Furniture' OR category = 'Technology';
```

	customer_name character varying 	category character varying 
1	Claire Gute	Furniture
2	Claire Gute	Furniture
3	Sean O'Donnell	Furniture
4	Brosina Hoffman	Furniture
5	Brosina Hoffman	Technology
6	Brosina Hoffman	Furniture
7	Brosina Hoffman	Technology
8	Zuschuss Donatelli	Technology
9	Sandra Flanagan	Furniture
10	Emily Burns	Furniture

Operator IN, NOT IN

- Syntax

IN

```
SELECT
    column_name(s)
FROM
    table_name
WHERE
    column_name IN (value1, value2, ...);
```

NOT IN

```
SELECT
    column_name(s)
FROM
    table_name
WHERE
    column_name NOT IN (value1, value2, ...);
```

- Operator IN menentukan beberapa nilai.
- Operator NOT IN memfilter baris yang tidak diinginkan.

Operator IN

```
select
  *
from
  superstore
where
  state IN ('New York', 'Indiana', 'Ohio');
```

customer_name character varying	segment character varying	country character varying	city character varying	state character varying
Darren Powers	Consumer	United States	New Albany	Indiana
Darren Powers	Consumer	United States	New Albany	Indiana
Darren Powers	Consumer	United States	New Albany	Indiana
Darren Powers	Consumer	United States	New Albany	Indiana
Janet Molinari	Corporate	United States	New York City	New York
Janet Molinari	Corporate	United States	New York City	New York
Ted Butterfield	Consumer	United States	Troy	New York
Ted Butterfield	Consumer	United States	Troy	New York
Ted Butterfield	Consumer	United States	Troy	New York
Ted Butterfield	Consumer	United States	Troy	New York

Operator NOT IN

```
select
  *
from
  superstore
where
  state NOT IN ('New York', 'Indiana', 'Ohio');
```

customer_name character varying 🔒	segment character varying 🔒	country character varying 🔒	city character varying 🔒	state character varying 🔒
Claire Gute	Consumer	United States	Henderson	Kentucky
Claire Gute	Consumer	United States	Henderson	Kentucky
Darrin Van Huff	Corporate	United States	Los Angeles	California
Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida
Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida
Brosina Hoffman	Consumer	United States	Los Angeles	California
Brosina Hoffman	Consumer	United States	Los Angeles	California
Brosina Hoffman	Consumer	United States	Los Angeles	California
Brosina Hoffman	Consumer	United States	Los Angeles	California
Brosina Hoffman	Consumer	United States	Los Angeles	California

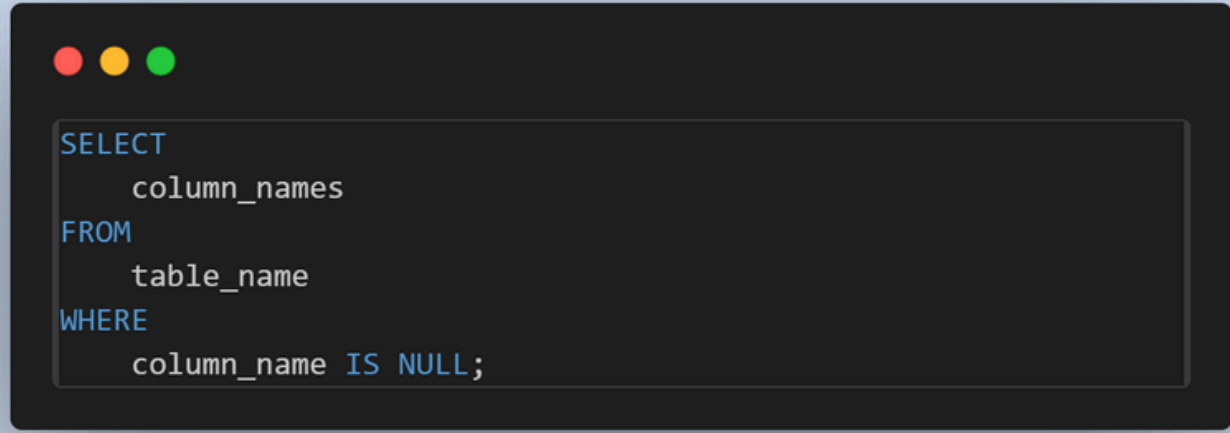
NULL Values

```
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```

NULL Values

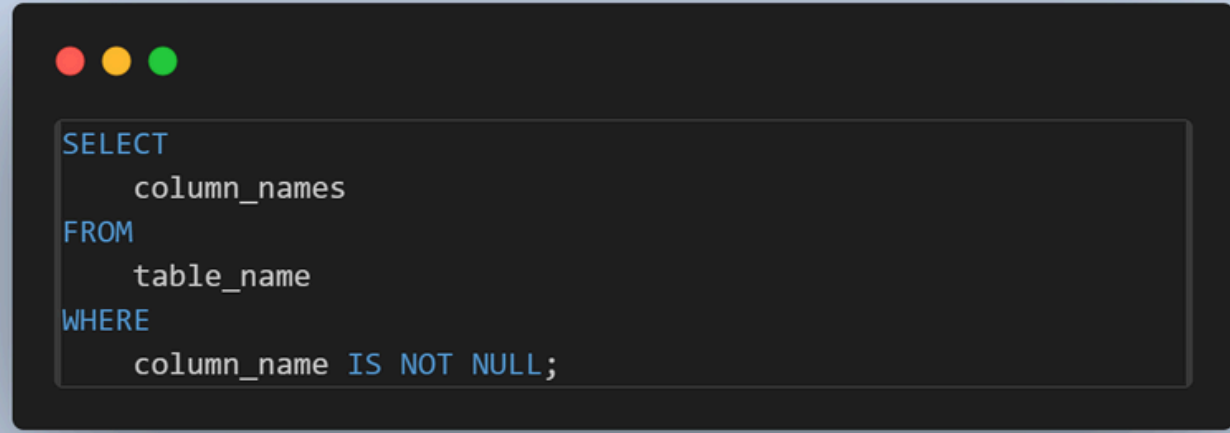
- Syntax

IS NULL



```
SELECT
    column_names
FROM
    table_name
WHERE
    column_name IS NULL;
```

IS NOT NULL



```
SELECT
    column_names
FROM
    table_name
WHERE
    column_name IS NOT NULL;
```

- Operator IS NULL digunakan untuk menguji nilai kosong (nilai NULL).
- Operator IS NOT NULL digunakan untuk menguji nilai yang tidak kosong (nilai NOT NULL).