

1. Buatlah sebuah database dengan nama **dibimbing**.
2. Di dalam database tersebut, buat sebuah tabel bernama **students** dalam skema **public**, dengan struktur kolom sebagai berikut:
 - o **id** (integer)
 - o **nama** (varchar)
 - o **institute** (varchar)
 - o **berat_badan** (float)
 - o **tinggi_badan** (float)

Isi tabel tersebut dengan minimal **5 baris data**, dan pastikan setiap baris memiliki nilai yang **berbeda-beda**. Nilai data dapat ditentukan secara bebas.

```
--create Table students
```

```
CREATE TABLE students(  
    id INTEGER PRIMARY KEY,  
    nama VARCHAR,  
    institute VARCHAR,  
    berat_badan FLOAT,  
    tinggi_badan FLOAT  
);
```

```
--data students
```

```
INSERT INTO public.students (id, nama, institute, berat_badan, tinggi_badan)  
VALUES  
    (1, 'Joko kendil', 'Universitas Indonesia', 65.5, 172.0),  
    (2, 'Budi krempeng', 'Institut Teknologi Bandung', 72.3, 178.5),  
    (3, 'Otong surotong', 'Universitas Gadjah Mada', 54.8, 160.2),  
    (4, 'Eko ganteng', 'Universitas Diponegoro', 59.0, 165.4),  
    (5, 'Ucup surucup', 'Universitas Airlangga', 68.7, 170.0);
```

The screenshot shows the DBeaver interface with the 'students' table selected in the 'public' schema of the 'dibimbing' database. The table structure and data are as follows:

id	nama	institute	berat_badan	tinggi_badan
1	Joko kendil	Universitas Indonesia	65.5	172.0
2	Budi krempeng	Institut Teknologi Bandung	72.3	178.5
3	Otong surotong	Universitas Gadjah Mada	54.8	160.2
4	Eko ganteng	Universitas Diponegoro	59.0	165.4
5	Ucup surucup	Universitas Airlangga	68.7	170.0

The SQL editor shows the following statements:

```
--create Table students  
CREATE TABLE students(  
    id INTEGER PRIMARY KEY,  
    nama VARCHAR,  
    institute VARCHAR,  
    berat_badan FLOAT,  
    tinggi_badan FLOAT  
);  
  
--data students  
INSERT INTO public.students (id, nama, institute, berat_badan, tinggi_badan)  
VALUES  
    (1, 'Joko kendil', 'Universitas Indonesia', 65.5, 172.0),  
    (2, 'Budi krempeng', 'Institut Teknologi Bandung', 72.3, 178.5),  
    (3, 'Otong surotong', 'Universitas Gadjah Mada', 54.8, 160.2),  
    (4, 'Eko ganteng', 'Universitas Diponegoro', 59.0, 165.4),  
    (5, 'Ucup surucup', 'Universitas Airlangga', 68.7, 170.0);
```

Part 2: Query on Existing Schema **dvdrental**

Gunakan skema **dvdrental** untuk menjawab pertanyaan berikut:

Tampilkan kolom **first_name** dan **last_name** dari tabel **actor** untuk aktor yang memiliki **first_name** **Jennifer, Nick, dan Ed**.

```
--Tampilkan kolom first_name dan last_name dari tabel actor untuk aktor  
--yang memiliki first_name Jennifer, Nick, dan Ed.
```

```
SELECT first_name, last_name  
FROM actor  
WHERE first_name IN ('Jennifer', 'Nick', 'Ed');
```

The screenshot shows a database management tool interface. On the left, the 'dvdrental' schema is expanded, showing various tables. The 'actor' table is selected. On the right, a SQL query is entered in a text area:

```
--Tampilkan kolom first_name dan last_name dari tabel actor untuk aktor  
--yang memiliki first_name Jennifer, Nick, dan Ed.  
  
SELECT first_name, last_name  
FROM actor  
WHERE first_name IN ('Jennifer', 'Nick', 'Ed');
```

Below the query, the results are displayed in a table with columns 'first_name' and 'last_name'. The results are:

first_name	last_name
Nick	Wahlberg
Ed	Chase
Jennifer	Davis
Nick	Stallone
Ed	Mansfield
Nick	Degeneres
Ed	Guinness

Hitung total amount untuk setiap **payment_id** dari tabel **payment**, dan **tampilkan hanya** baris yang memiliki total **amount** lebih dari 5.99.

*Petunjuk: Gunakan klausa **HAVING**.*

```
--Hitung total amount untuk setiap payment_id dari tabel payment,  
--dan tampilkan hanya baris yang memiliki total amount lebih dari 5.99.
```

```
SELECT payment_id, SUM(amount) AS total_amount  
FROM payment  
GROUP BY payment_id  
HAVING SUM(amount) > 5.99;
```

--Hitung total amount untuk setiap payment_id dari tabel payment,
--dan tampilkan hanya baris yang memiliki total amount lebih dari 5.99.

```
SELECT payment_id, SUM(amount) AS total_amount
FROM payment
GROUP BY payment_id
HAVING SUM(amount) > 5.99;
```

	payment_id	total_amount
1	18,803	7.99
2	31,789	6.99
3	25,886	10.99
4	28,031	9.99
5	23,154	7.99
6	18,474	7.99
7	26,032	9.99
o	75,574	7.00

Dari tabel `film`, tampilkan `film_id`, `title`, `description`, dan `length`.

Kelompokkan `length` ke dalam **4 kategori** sebagai berikut:

- Over 100
- Between 87 and 100
- Between 72 and 86
- Under 72

Penamaan kategori dapat ditentukan sendiri. Gunakan klausa `CASE WHEN` atau `BETWEEN`.

```
SELECT
    film_id,
    title,
    description,
    length,
    CASE
        when length > 100 then 'Over 100'
        when length > 86 and length <= 100 then 'Between 87 and 100'
        when length > 71 and length <= 87 then 'Between 72 and 86'
        when length < 72 then 'Under 72'
    end as length_category
from film;
```

-- Ketampilkan length ke dalam 4 kategori sebagai berikut:

```

SELECT
  film_id,
  title,
  description,
  length,
  CASE
    when length > 100 then 'Over 100'
    when length > 86 and length <= 100 then 'Between 87 and 100'
    when length > 71 and length <= 87 then 'Between 72 and 86'
    when length < 72 then 'Under 72'
  end as length_category
from film;

```

film_id	title	description	length	length_category
57	Balloon Homeward	A Insightful Panorama of a Forensic Psychologist And a Ma	75	Between 72 and 86
58	Balroom Mockingbi	A Thrilling Documentary of a Composer And a Monkey whc	173	Over 100
59	Bang Kwai	A Epic Drama of a Madman And a Cat who must Face a A S	87	Between 87 and 100
60	Banger Pinocchio	A Awe-Inspiring Drama of a Car And a Pastry Chef who mu	113	Over 100
61	Barbarella Streetcar	A Awe-Inspiring Story of a Feminist And a Cat who must Cc	65	Under 72
62	Barefoot Manchuria	A Intrepid Story of a Cat And a Student who must Vanquish	129	Over 100

Gabungkan tabel `rental` dan `payment` untuk menampilkan **10 baris pertama** dengan kolom:

- o `rental_id`
- o `rental_date`
- o `payment_id`
- o `amount`

Urutkan hasil berdasarkan `amount` secara **ascending**.

--Gabungkan tabel rental dan payment untuk menampilkan 10 baris pertama dengan kolom:
 --rental_id, rental_date, payment_id, amount

```

SELECT
  r.rental_id,
  r.rental_date,
  p.payment_id,
  p.amount
FROM rental r
INNER JOIN payment p ON r.rental_id = p.rental_id
ORDER BY p.amount asc
LIMIT 10;

```

filter connections by name

- Schemas
 - public
 - Tables
 - actor: 72K
 - address: 152K
 - category: 24K
 - city: 112K
 - country: 24K
 - customer: 208K
 - departments: 32K
 - employees: 32K
 - film: 936K
 - film_actor: 488K
 - film_category: 112K
 - inventory: 440K
 - language: 24K
 - payment: 1.8M
 - rental: 2.3M
 - staff: 32K
 - store: 40K
 - Foreign Tables
 - Views
 - Materialized Views
 - Indexes

```
--Gabungkan tabel rental dan payment untuk menampilkan 10 baris pertama dengan kolom:
--rental_id, rental_date, payment_id, amount

SELECT
  r.rental_id,
  r.rental_date,
  p.payment_id,
  p.amount
FROM rental r
INNER JOIN payment p ON r.rental_id = p.rental_id
ORDER BY p.amount asc
LIMIT 10;
```

rental(+) 1 X

SELECT r.rental_id, r.rental_date, p.pay | Enter a SQL expression to filter results (use Ctrl+Space)

	rental_id	rental_date	payment_id	amount
6	12,915	2006-02-14 15:16:03.000	31,983	0
7	13,713	2006-02-14 15:16:03.000	31,918	0
8	12,610	2006-02-14 15:16:03.000	31,920	0
9	11,782	2006-02-14 15:16:03.000	31,942	0
10	13,464	2006-02-14 15:16:03.000	32,001	0

Dari tabel `address`, gabungkan seluruh kolom dari alamat yang memiliki `city_id = 42` dan `city_id = 300` menggunakan **UNION**.

--Dari tabel `address`, gabungkan seluruh kolom dari alamat yang memiliki `city_id = 42` dan `city_id = 300` menggunakan **UNION**.

```
SELECT
  city_id
FROM
  address
WHERE
  city_id = 42
UNION
SELECT
  city_id
FROM
  address
WHERE
  city_id = 300
ORDER BY
  city_id;
```

Database Explorer showing Schemas, public, Tables, and a list of tables with their sizes.

Table	Size
actor	72K
address	152K
category	24K
city	112K
country	24K
customer	208K
departments	32K
employees	32K
film	936K
film_actor	488K
film_category	112K
inventory	440K
language	24K
payment	1.8M
rental	2.3M
staff	32K
store	40K

Foreign Tables, Views, Materialized Views, Indexes, Functions

SQL Query:

```
SELECT city_id
FROM address
WHERE city_id = 42
UNION
SELECT city_id
FROM address
WHERE city_id = 300
ORDER BY city_id;
```

Results 1

city_id
42
300