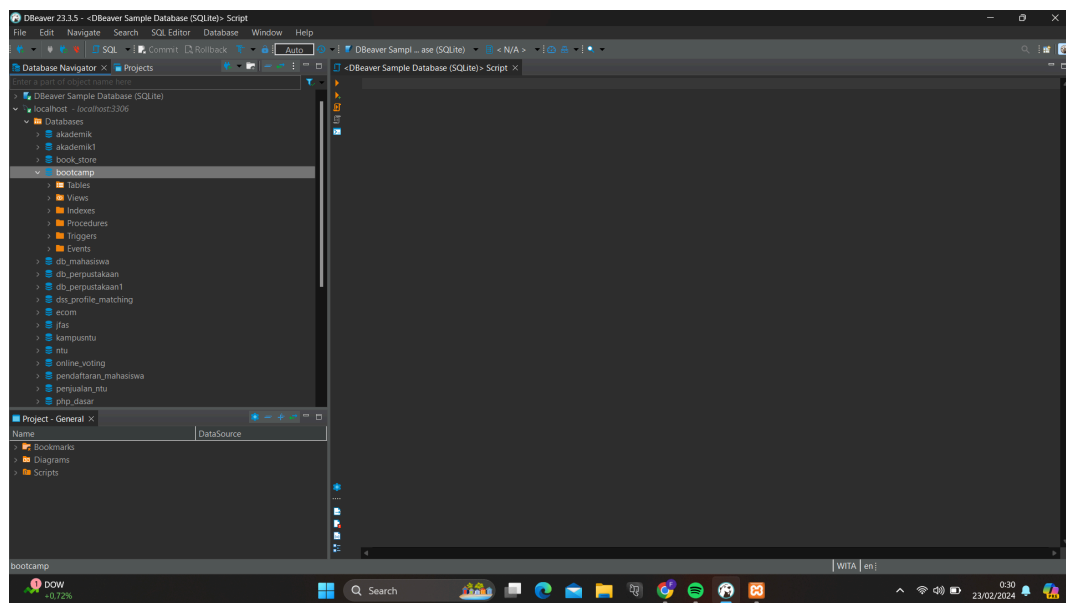


Tugas Mandiri Praktik Menggunakan SQL

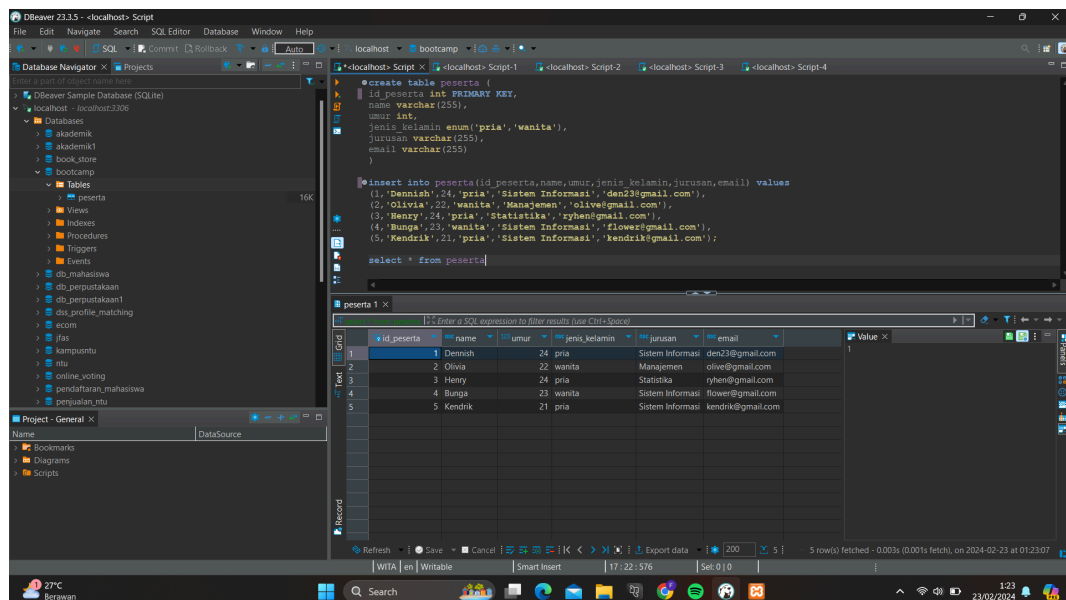
(Sesi: SQL 1 (DuckDB / Google BigQuery / DBeaver (PostgreSQL)))

Nama : Filbert Leonardo
Kelompok : 3

1. Membuat database baru dengan nama **Bootcamp**



2. Membuat tabel baru (1) yaitu **Peserta**



3. Membuat tabel baru (2) yaitu **Instruktur**

The screenshot shows the DBeaver 23.3.5 interface. The left sidebar displays the 'Database Navigator' with a tree view of the 'DBeaver Sample Database (SQLite)' containing various tables like 'akademik', 'book_store', 'bootcamp', 'instruktur', 'kelas', 'peserta', etc. The main editor window is titled 'Script-2' and contains the following SQL script:

```
create table instruktur (
  id_instruktur int primary key,
  nama varchar(20),
  sarjana varchar(20)
)

insert into instruktur(id_instruktur,nama,sarjana) values
(1,'Lia','Sistem Informasi'),
(2,'Alfred','Teknik Informatika'),
(3,'Mindy','Statistika'),
(4,'Terena','Statistika'),
(5,'Owen','Teknik Informatika');

select * from instruktur
```

Below the script, a preview window titled 'Instruktur 1' shows the resulting data:

id_instruktur	nama	sarjana
1	Lia	Sistem Informasi
2	Alfred	Teknik Informatika
3	Mindy	Statistika
4	Terena	Statistika
5	Owen	Teknik Informatika

The status bar at the bottom indicates '5 row(s) fetched - 0.001s, on 2024-02-23 at 01:25:52'.

4. Membuat tabel baru (3) yaitu **Kelas**

The screenshot shows the DBeaver 23.3.5 interface. The left sidebar displays the 'Database Navigator' with a tree view of the 'DBeaver Sample Database (SQLite)' containing various tables like 'akademik', 'book_store', 'bootcamp', 'instruktur', 'kelas', 'peserta', etc. The main editor window is titled 'Script-1' and contains the following SQL script:

```
create table kelas (
  id_kelas int primary key,
  kelas varchar(255),
  id_instruktur int,
  foreign key (id_instruktur) references instruktur(id_instruktur)
)

insert into kelas(id_kelas,kelas,id_instruktur) values
(1,'Pemrograman Web',2),
(2,'Data Mining',1),
(3,'Desain UI/UX',3),
(4,'Machine Learning',1),
(5,'Database',2);

select * from kelas
```

Below the script, a preview window titled 'kelas 1' shows the resulting data:

id_kelas	kelas	id_instruktur
1	Pemrograman Web	2
2	Data Mining	1
3	Desain UI/UX	3
4	Machine Learning	1
5	Database	2

The status bar at the bottom indicates '5 row(s) fetched - 0.003s, on 2024-02-23 at 01:26:39'.

5. Membuat tabel baru (4) yaitu **Pendaftaran**

The screenshot shows the DBeaver 23.3.5 interface. The left sidebar displays the 'Database Navigator' with a tree view of the 'DBeaver Sample Database (SQLite)' containing tables like 'akademik', 'kelas', 'pendaftaran', and 'peserta'. The main editor window is titled 'localhost - Script-3' and contains the following SQL script:

```
create table pendaftaran (
  id_pendaftaran int primary key,
  id_peserta int,
  id_kelas int,
  foreign key (id_peserta) references peserta(id_peserta),
  foreign key (id_kelas) references kelas(id_kelas)
)

insert into pendaftaran (id_pendaftaran, id_peserta, id_kelas) values
(1, 1, 2),
(2, 2, 4),
(3, 3, 1),
(4, 4, 5),
(5, 5, 3)

select * from pendaftaran
```

Below the script, the 'pendaftaran' table is displayed in a grid view with 5 rows of data:

id_pendaftaran	id_peserta	id_kelas
1	1	2
2	2	4
3	3	1
4	4	5
5	5	3

6. Membuat tabel baru (5) yaitu **Jadwal**

The screenshot shows the DBeaver 23.3.5 interface. The left sidebar displays the 'Database Navigator' with a tree view of the 'DBeaver Sample Database (SQLite)' containing tables like 'akademik', 'jadwal', 'kelas', 'pendaftaran', and 'peserta'. The main editor window is titled 'localhost - Script-4' and contains the following SQL script:

```
create table jadwal (
  id_jadwal int primary key,
  id_kelas int,
  tanggal date,
  jam_masuk time,
  jam_keluar time,
  foreign key (id_kelas) references kelas(id_kelas)
)

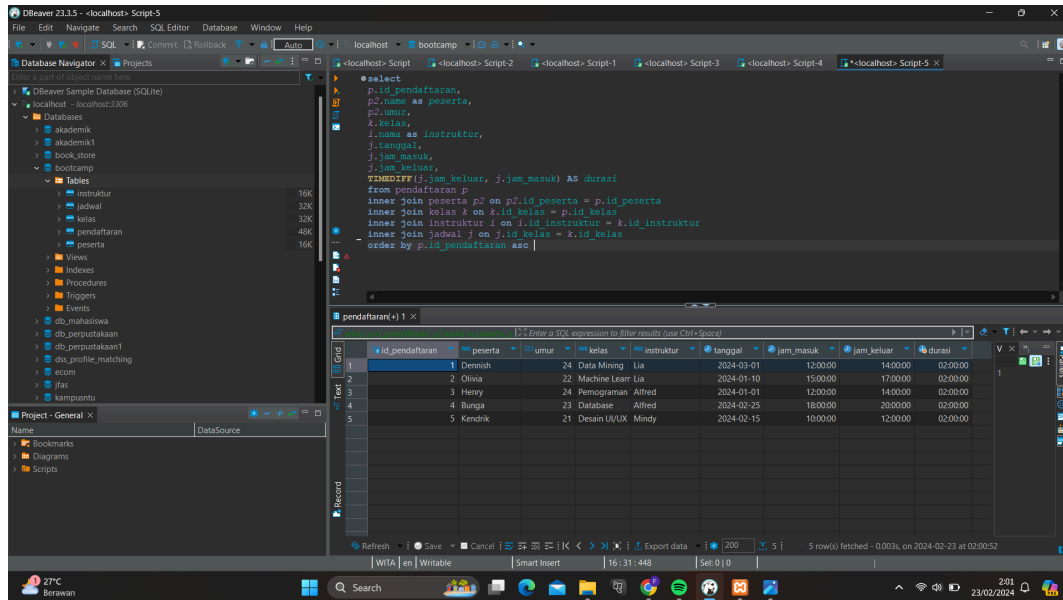
insert into jadwal (id_jadwal, id_kelas, tanggal, jam_masuk, jam_keluar) values
(1, 1, '2024-03-01', '12:00:00', '14:00:00'),
(2, 2, '2024-03-01', '12:00:00', '14:00:00'),
(3, 3, '2024-02-15', '10:00:00', '12:00:00'),
(4, 4, '2024-01-10', '15:00:00', '17:00:00'),
(5, 5, '2024-02-25', '18:00:00', '20:00:00')

select * from jadwal
```

Below the script, the 'jadwal' table is displayed in a grid view with 5 rows of data:

id_jadwal	id_kelas	tanggal	jam_masuk	jam_keluar
1	1	2024-03-01	12:00:00	14:00:00
2	2	2024-03-01	12:00:00	14:00:00
3	3	2024-02-15	10:00:00	12:00:00
4	4	2024-01-10	15:00:00	17:00:00
5	5	2024-02-25	18:00:00	20:00:00

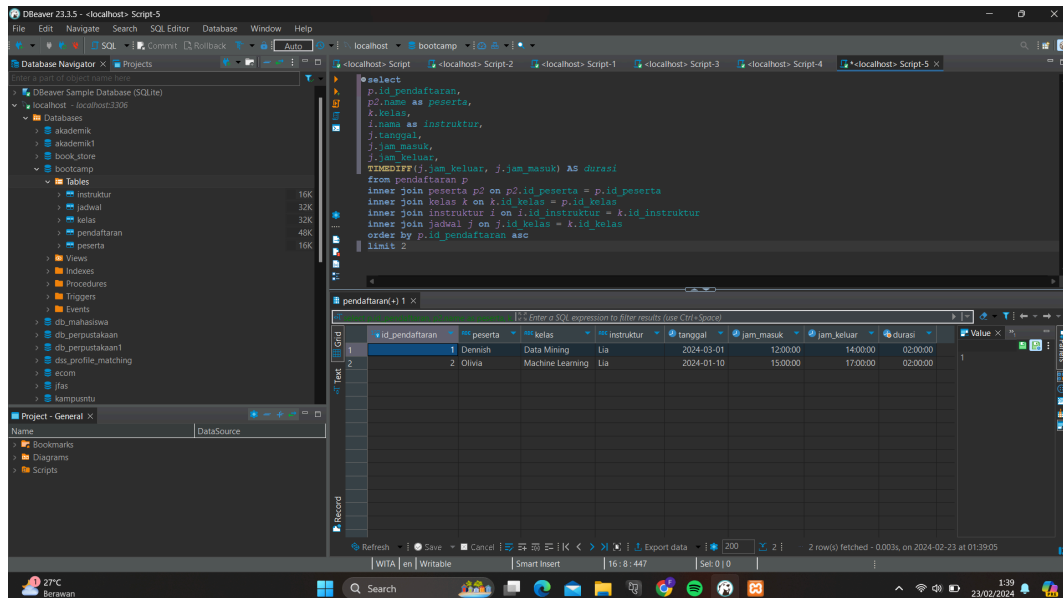
7. Menampilkan gabungan data secara keseluruhan



```
select
  p.id_pendaftaran,
  p2.name as peserta,
  p2.umur,
  k.kelas,
  i.name as instruktur,
  i.tanggal,
  j.jam_masuk,
  j.jam_keluar,
  TIMEDIFF(j.jam_keluar, j.jam_masuk) AS durasi
from pendaftaran p
inner join peserta p2 on p2.id_peserta = p.id_peserta
inner join kelas k on k.id_kelas = p.id_kelas
inner join instruktur i on i.id_instruktur = k.id_instruktur
inner join jadwal j on j.id_kelas = k.id_kelas
order by p.id_pendaftaran asc
```

	id_pendaftaran	peserta	umur	kelas	instruktur	tanggal	jam_masuk	jam_keluar	durasi
1	Dennis	24	Data Mining	Lia	2024-03-01	12:00:00	14:00:00	02:00:00	
2	Olivia	22	Machine Learn	Lia	2024-01-10	15:00:00	17:00:00	02:00:00	
3	Henry	24	Pemrograman	Alfred	2024-01-01	12:00:00	14:00:00	02:00:00	
4	Bunga	23	Database	Alfred	2024-02-25	18:00:00	20:00:00	02:00:00	
5	Kendrik	21	Desain UI/UX	Mindy	2024-02-15	10:00:00	12:00:00	02:00:00	

8. Menampilkan gabungan data dengan menggunakan operator LIMIT



```
select
  p.id_pendaftaran,
  p2.name as peserta,
  p2.umur,
  k.kelas,
  i.name as instruktur,
  i.tanggal,
  j.jam_masuk,
  j.jam_keluar,
  TIMEDIFF(j.jam_keluar, j.jam_masuk) AS durasi
from pendaftaran p
inner join peserta p2 on p2.id_peserta = p.id_peserta
inner join kelas k on k.id_kelas = p.id_kelas
inner join instruktur i on i.id_instruktur = k.id_instruktur
inner join jadwal j on j.id_kelas = k.id_kelas
order by p.id_pendaftaran asc
limit 2
```

	id_pendaftaran	peserta	umur	kelas	instruktur	tanggal	jam_masuk	jam_keluar	durasi
1	Dennis	Data Mining	Lia	2024-03-01	12:00:00	14:00:00	02:00:00		
2	Olivia	Machine Learning	Lia	2024-01-10	15:00:00	17:00:00	02:00:00		

9. Menampilkan gabungan data dengan menggunakan operator **LIKE**

The screenshot shows the DBeaver 23.3.5 interface. The SQL Editor contains the following query:

```
select
  p.id_pendaftaran,
  p2.name as peserta,
  p2.umur,
  k.kelas,
  i.name as instruktur,
  j.tanggal,
  j.jam_masuk,
  j.jam_keluar,
  TIMEDIFF(j.jam_keluar, j.jam_masuk) AS durasi
from pendaftaran p
inner join peserta p2 on p2.id_peserta = p.id_peserta
inner join kelas k on k.id_kelas = p.id_kelas
inner join instruktur i on i.id_instruktur = k.id_instruktur
inner join jadwal j on j.id_kelas = k.id_kelas
where kelas like 'da'
order by p.id_pendaftaran asc
```

The Results tab shows the following data:

id_pendaftaran	peserta	umur	kelas	instruktur	tanggal	jam_masuk	jam_keluar	durasi
1	Dennis	24	Data Mining	Lia	2024-03-01	12:00:00	14:00:00	02:00
4	Bunga	23	Database	Alfred	2024-02-25	18:00:00	20:00:00	02:00
5	Kendrik	21	Desain UI/UX	Mindy	2024-02-15	10:00:00	12:00:00	02:00

10. Menampilkan gabungan data dengan menggunakan operator **< , > atau =**

The screenshot shows the DBeaver 23.3.5 interface. The SQL Editor contains the following query:

```
select
  p.id_pendaftaran,
  p2.name as peserta,
  p2.umur,
  k.kelas,
  i.name as instruktur,
  j.tanggal,
  j.jam_masuk,
  j.jam_keluar,
  TIMEDIFF(j.jam_keluar, j.jam_masuk) AS durasi
from pendaftaran p
inner join peserta p2 on p2.id_peserta = p.id_peserta
inner join kelas k on k.id_kelas = p.id_kelas
inner join instruktur i on i.id_instruktur = k.id_instruktur
inner join jadwal j on j.id_kelas = k.id_kelas
where umur > 23
order by p.id_pendaftaran asc
```

The Results tab shows the following data:

id_pendaftaran	peserta	umur	kelas	instruktur	tanggal	jam_masuk	jam_keluar	durasi
1	Dennis	24	Data Mining	Lia	2024-03-01	12:00:00	14:00:00	02:00
3	Henry	24	Pemrograman	Alfred	2024-01-01	12:00:00	14:00:00	02:00