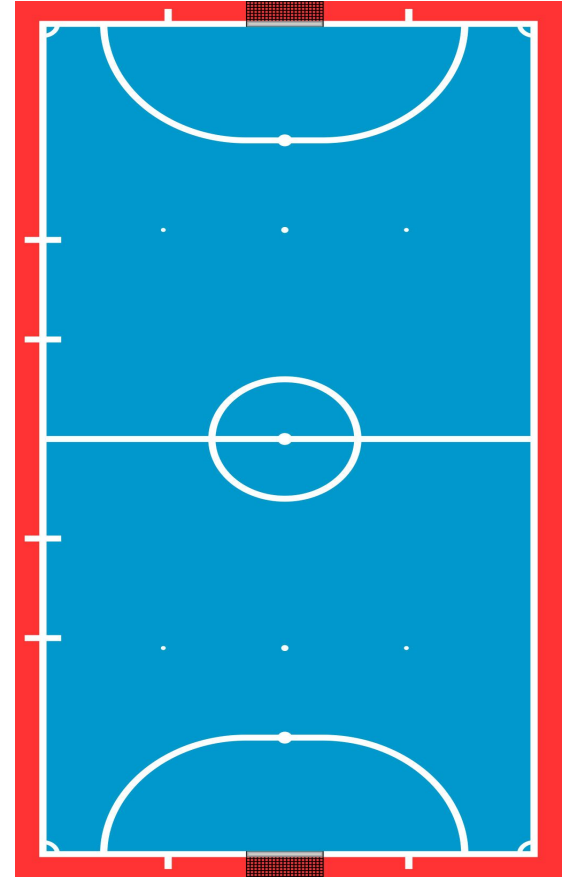

Modul Assignment SQL

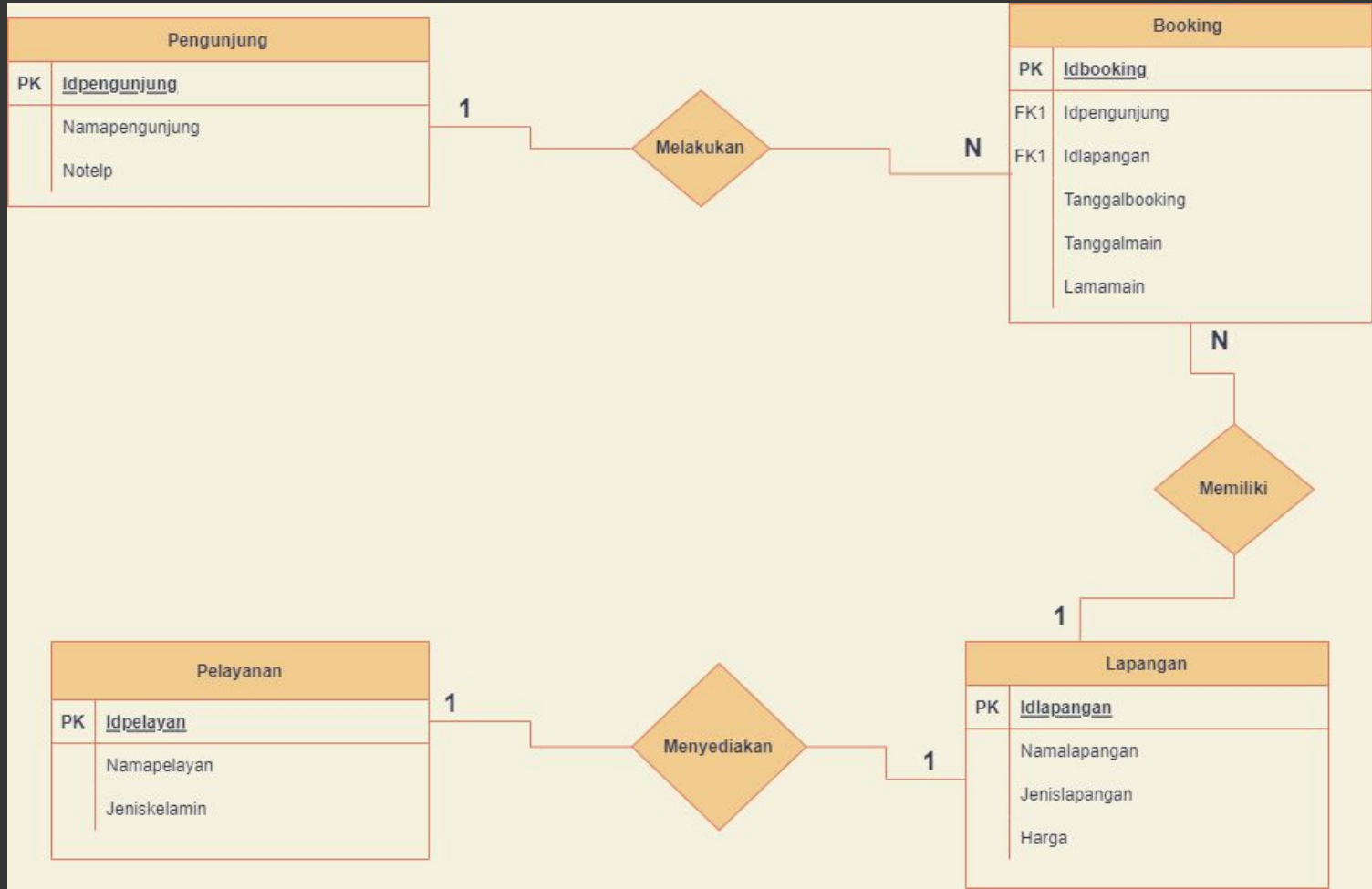
Galang Setia Nugroho
Universitas Jenderal Achmad Yani

ERD (Use Case)

Di dalam sebuah tempat bermain Futsal, seorang pengunjung dapat melakukan sebuah pemesanan atau dalam istilah lain booking sebuah lapangan yang nantinya akan disediakan oleh pelayanan di tempat futsal. Dalam hal ini pengunjung dapat melakukan beberapa kali booking, dan satu lapangan dapat dilakukan banyak booking yang nantinya dalam satu lapangan tersebut akan disediakan satu pelayanan.



ERD



Syntax For Creating Table

--Tabel pengunjung

```
CREATE TABLE Pengunjung (  
  Idpengunjung varchar(3) PRIMARY KEY NOT NULL,  
  Namapengunjung varchar(50),  
  Notelp varchar(50));
```

--Tabel Lapangan

```
CREATE TABLE Lapangan (Idlapangan varchar(4) PRIMARY KEY NOT NULL,  
  Namalapangan varchar(50),  
  Jenislapangan varchar(50),  
  Harga bigint);
```

Syntax For Creating Table

--Tabel Pelayanan

```
CREATE TABLE Pelayanan (Idpelayan varchar(2) PRIMARY KEY NOT NULL,  
Namapelayan varchar(50),  
Jeniskelamin varchar(50));
```

--Tabel Booking

```
CREATE TABLE Booking (Idbooking varchar(5),  
Idpengunjung varchar(3),  
Idlapangan varchar(4),  
Tanggalbooking timestamp,  
Tanggalmain timestamp,  
Lamamain int,  
PRIMARY KEY(Idbooking),  
FOREIGN KEY(Idpengunjung) REFERENCES Pengunjung(Idpengunjung),  
FOREIGN key(Idlapangan) REFERENCES Lapangan(Idlapangan));
```

Syntax For Insert Data For Each Table

--Insert data tabel pengunjung

```
INSERT INTO pengunjung VALUES ('A01', 'Abed', 085899990000);  
INSERT INTO pengunjung VALUES ('A02', 'Lala', 085899991234);  
INSERT INTO pengunjung VALUES ('A03', 'Lulu', 085899999812);  
INSERT INTO pengunjung VALUES ('A04', 'Kali', 085899991111);  
INSERT INTO pengunjung VALUES ('A05', 'Nula', 085899999000);
```

--Insert data tabel lapangan

```
INSERT INTO lapangan VALUES ('001', 'Anfield','Polimer','50000');  
INSERT INTO lapangan VALUES ('002', 'Old Trafford','Rumput','60000');  
INSERT INTO lapangan VALUES ('003', 'GBK','Rumput','55000');  
INSERT INTO lapangan VALUES ('004', 'GBLA','Polimer','55000');  
INSERT INTO lapangan VALUES ('005', 'Camp Nou','Rumput','90000');
```

Syntax For Insert Data For Each Table

--Insert data tabel pelayanan

```
INSERT INTO PELAYANAN VALUES ('1','Nani','Laki=laki');  
INSERT INTO PELAYANAN VALUES ('2','Sarah','Perempuan');  
INSERT INTO PELAYANAN VALUES ('3','Tom','Laki=laki');  
INSERT INTO PELAYANAN VALUES ('4','Isil','Perempuan');  
INSERT INTO PELAYANAN VALUES ('5','Jerry','Laki=laki');
```

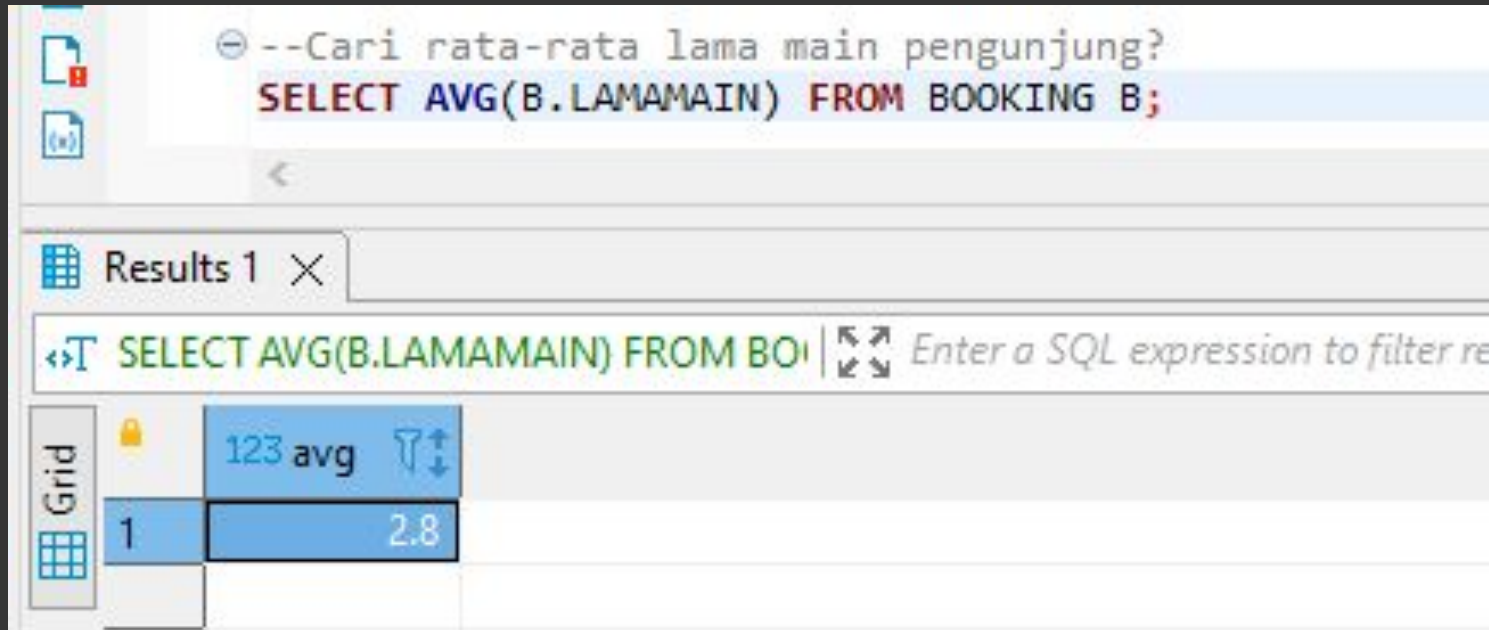
--Insert data tabel booking

```
INSERT INTO BOOKING VALUES ('B001', 'A01','002','2022-06-22 19:10:25','2022-06-22  
22:18:10',3);  
INSERT INTO BOOKING VALUES ('B002', 'A04','005','2022-06-22 09:50:15','2022-06-22  
10:10:10',5);  
INSERT INTO BOOKING VALUES ('B003', 'A03','001','2022-06-22 11:30:45','2022-06-22  
14:19:21',1);  
INSERT INTO BOOKING VALUES ('B004', 'A04','003','2022-06-22 18:10:35','2022-06-22  
20:20:10',2);  
INSERT INTO BOOKING VALUES ('B005', 'A05','002','2022-06-22 22:19:15','2022-06-22  
23:30:05',3);
```

Scenario Analysis Use Case

Cari rata-rata lama main pengunjung?

Find the average length of play of visitors?



The screenshot shows a SQL IDE interface. At the top, a query editor contains the following SQL statement:

```
--Cari rata-rata lama main pengunjung?  
SELECT AVG(B.LAMAMAIN) FROM BOOKING B;
```

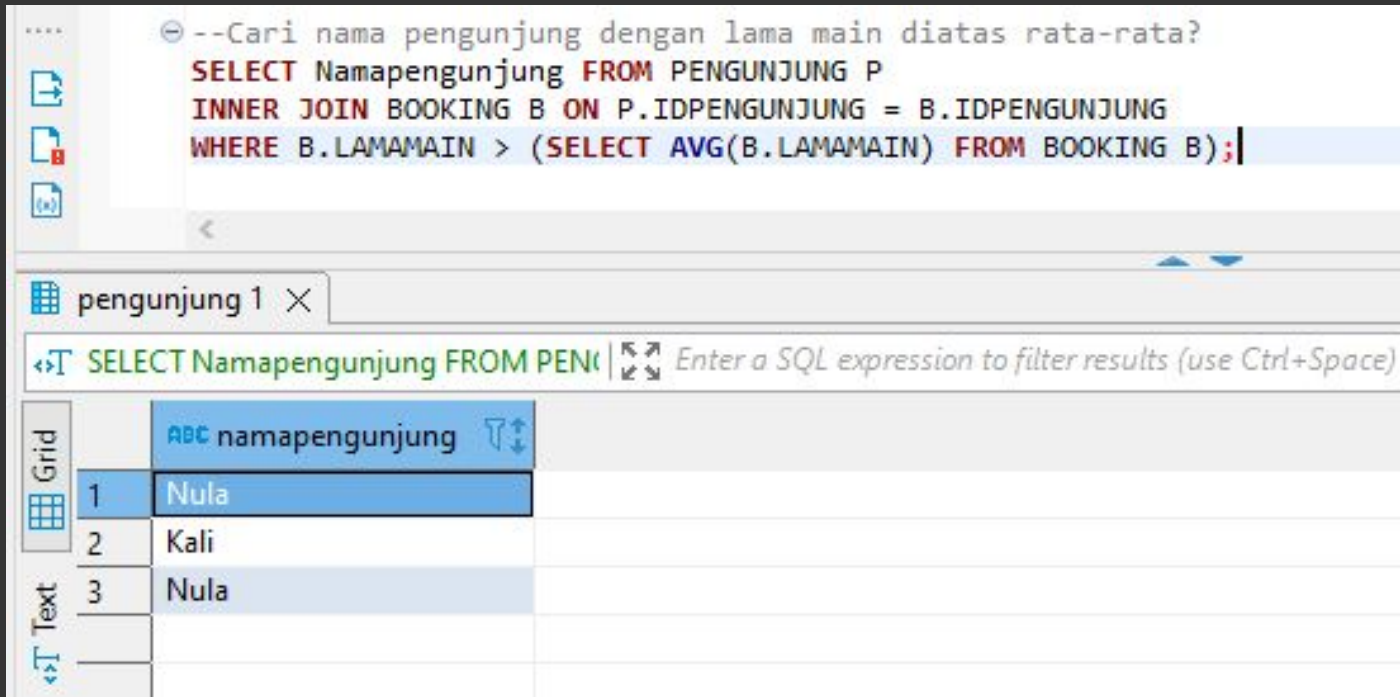
Below the query editor, a tab labeled "Results 1" is active. It displays the results of the query in a table format. The table has two columns: an index column and a column for the average value.

	123 avg
1	2.8

Scenario Analysis Use Case

Cari nama pengunjung dengan lama main diatas rata-rata?

Looking for a visitor's name with an above average playing time?



The screenshot shows a SQL IDE interface. The top pane displays a SQL query: `--Cari nama pengunjung dengan lama main diatas rata-rata?`
`SELECT Namapengunjung FROM PENGUNJUNG P`
`INNER JOIN BOOKING B ON P.IDPENGUNJUNG = B.IDPENGUNJUNG`
`WHERE B.LAMAMAIN > (SELECT AVG(B.LAMAMAIN) FROM BOOKING B);`

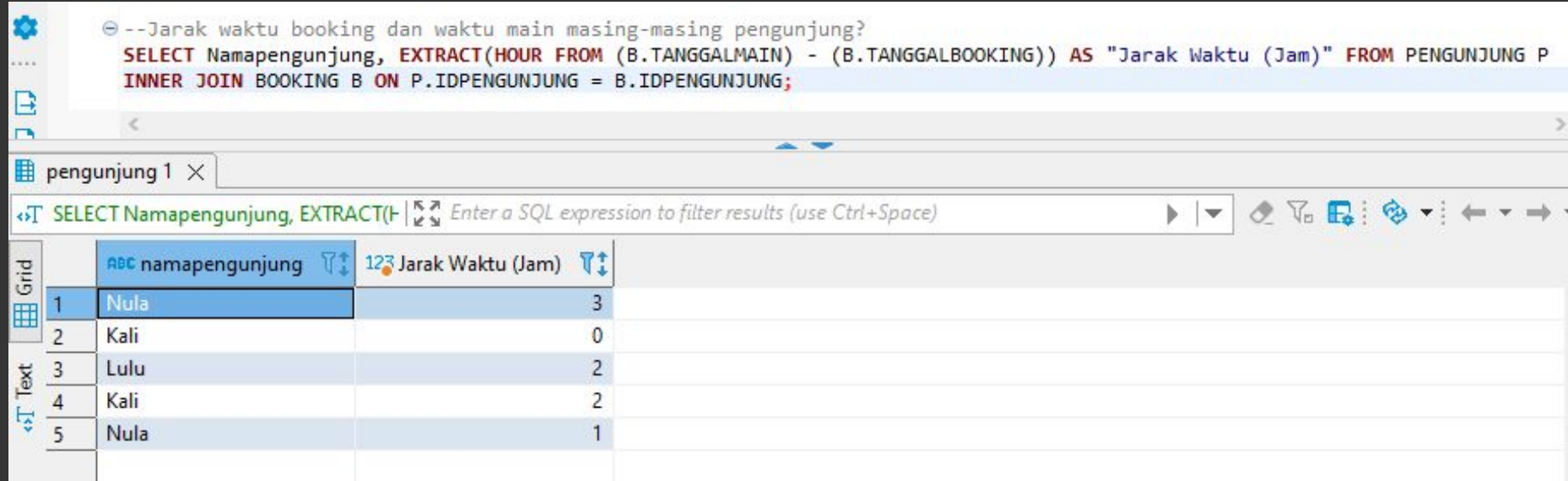
The bottom pane shows the results of the query in a table view. The table has two columns: 'Grid' (containing row numbers) and 'Text' (containing visitor names). The results are:

Grid	Text
1	Nula
2	Kali
3	Nula

Scenario Analysis Use Case

Jarak waktu booking dan waktu main masing-masing pengunjung?

The distance between booking and playing time for each visitor?



The screenshot displays a database management interface. At the top, a SQL query is entered in a text area:

```
--Jarak waktu booking dan waktu main masing-masing pengunjung?  
SELECT Namapengunjung, EXTRACT(HOUR FROM (B.TANGGALMAIN) - (B.TANGGALBOOKING)) AS "Jarak Waktu (Jam)" FROM PENGUNJUNG P  
INNER JOIN BOOKING B ON P.IDPENGUNJUNG = B.IDPENGUNJUNG;
```

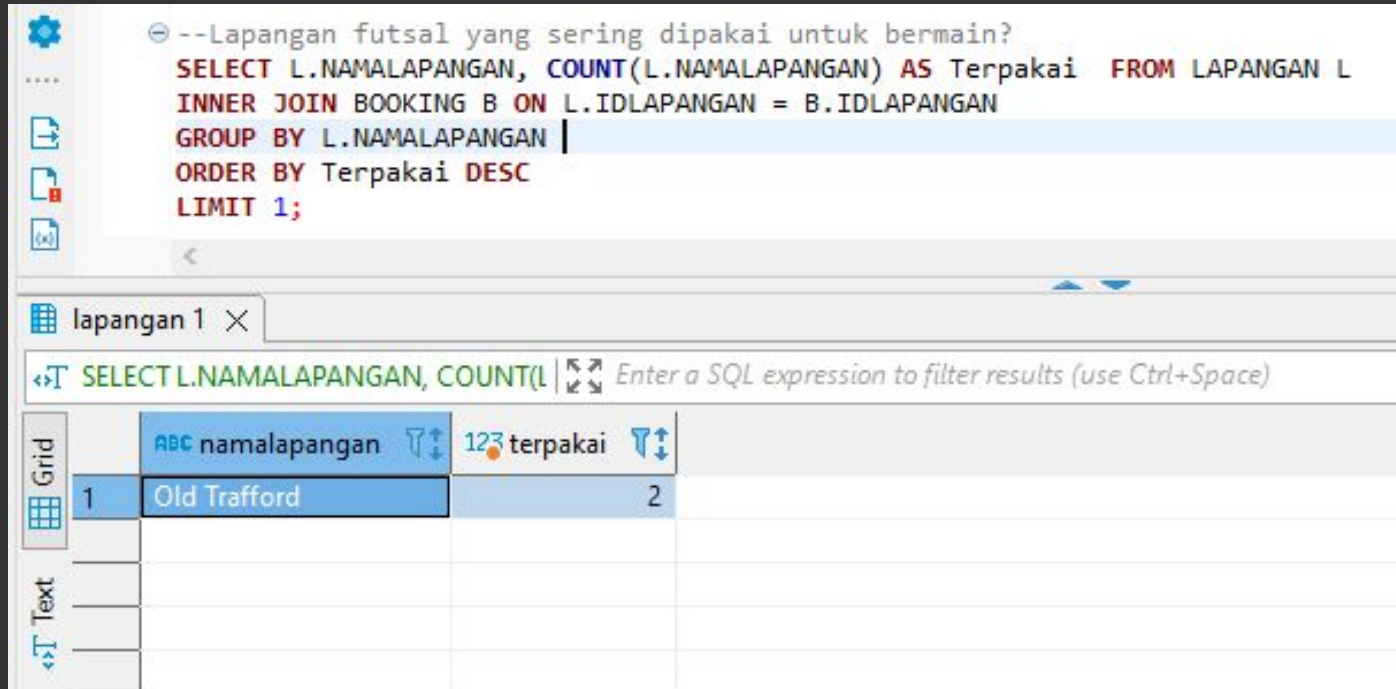
Below the query editor, a tab labeled "pengunjung 1" is active. The results of the query are displayed in a table with two columns: "Namapengunjung" and "Jarak Waktu (Jam)". The table contains five rows of data:

	Namapengunjung	Jarak Waktu (Jam)
1	Nula	3
2	Kali	0
3	Lulu	2
4	Kali	2
5	Nula	1

Scenario Analysis Use Case

Lapangan futsal yang sering dipakai untuk bermain?

Which futsal field is often used to play?



The screenshot shows a SQL IDE interface. The top pane contains a SQL query to find the most frequently used futsal field. The bottom pane shows the results in a table grid.

```
--Lapangan futsal yang sering dipakai untuk bermain?  
SELECT L.NAMALAPANGAN, COUNT(L.NAMALAPANGAN) AS Terpakai FROM LAPANGAN L  
INNER JOIN BOOKING B ON L.IDLAPANGAN = B.IDLAPANGAN  
GROUP BY L.NAMALAPANGAN  
ORDER BY Terpakai DESC  
LIMIT 1;
```

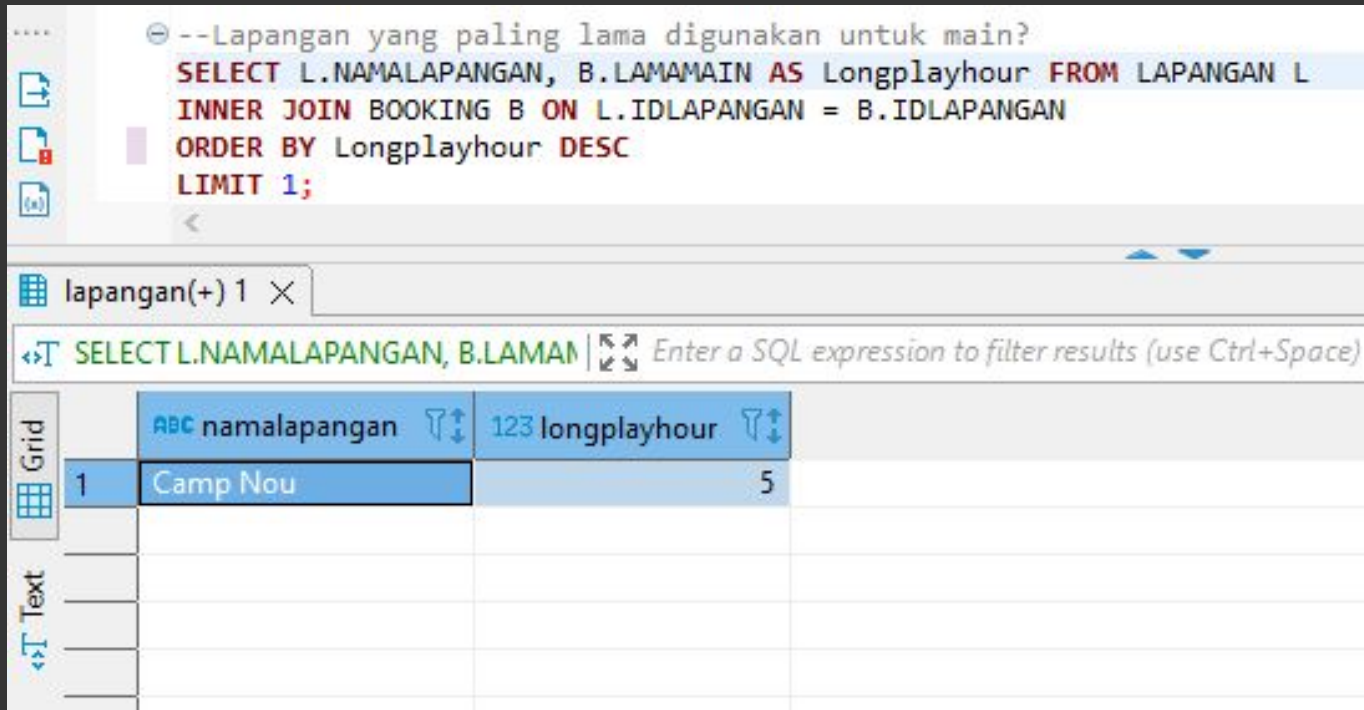
The results table is titled "lapangan 1" and contains the following data:

	ABC namalapangan	123 terpakai
1	Old Trafford	2

Scenario Analysis Use Case

Lapangan yang paling lama digunakan untuk main?

The field that has been used the longest to play?



The screenshot shows a SQL IDE interface. The top pane contains a SQL query: `--Lapangan yang paling lama digunakan untuk main?`
`SELECT L.NAMALAPANGAN, B.LAMAMAIN AS Longplayhour FROM LAPANGAN L`
`INNER JOIN BOOKING B ON L.IDLAPANGAN = B.IDLAPANGAN`
`ORDER BY Longplayhour DESC`
`LIMIT 1;`

The bottom pane shows the results of the query in a table view. The table has two columns: 'namalapangan' and 'longplayhour'. The first row shows 'Camp Nou' with a value of 5.

	ABC namalapangan	123 longplayhour
1	Camp Nou	5

Thank You For Reading

