

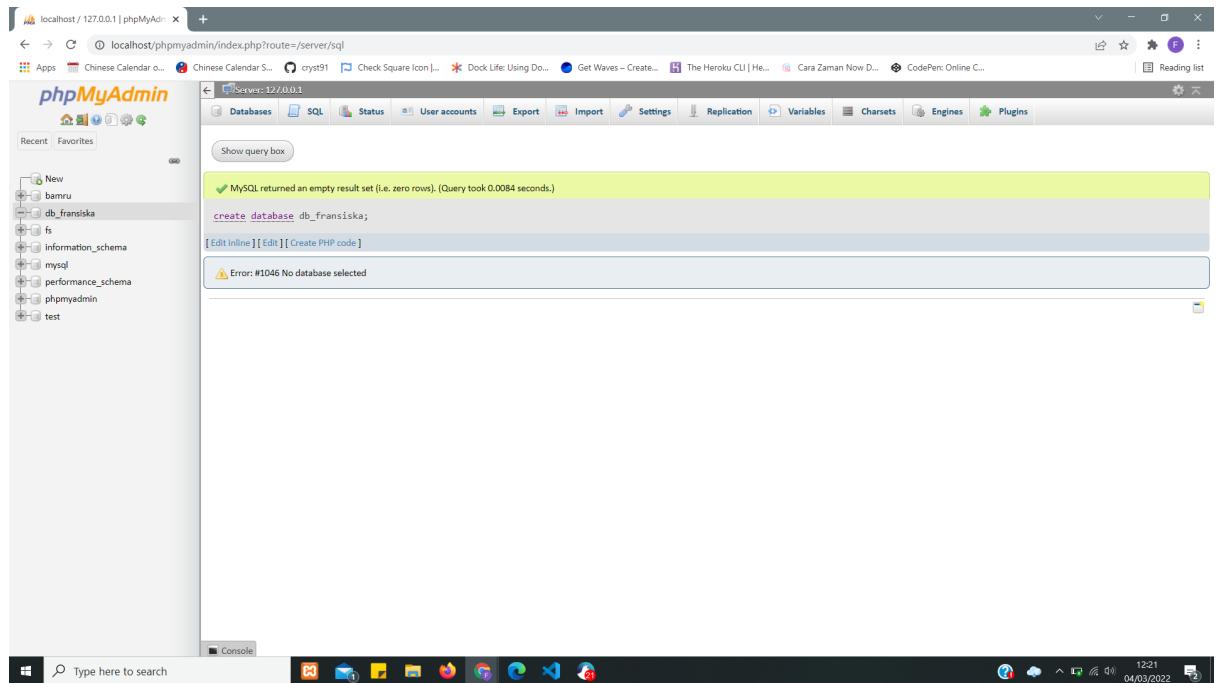
Nama :

1. Buatlah database dengan nama db_name!

Query

```
create database db_fransiska;
```

Screenshot



2. Buatlah tabel sesuai desain database

Query

```
create table kasir (
    id_kasir smallint not null,
    nama varchar(30) not null,
    CONSTRAINT pk_id_kasir PRIMARY KEY (id_kasir)
);

create table jurusan (
    id_jurusan smallint not null,
    nama varchar(15) not null,
    CONSTRAINT pk_id_jurusan PRIMARY KEY (id_jurusan)
);

create table buku (
    id_buku smallint not null,
    buku varchar(30) not null,
    status_buku varchar(10) not null,
    CONSTRAINT pk_id_buku PRIMARY KEY (id_buku)
);

create table prodi (
    id_prodi smallint not null,
```

```

id_jurusan smallint not null,
prodi varchar(15) not null,
CONSTRAINT pk_id_prodi PRIMARY KEY (id_prodi),
FOREIGN KEY (id_jurusan) REFERENCES jurusan(id_jurusan)
);

```

```

create table mahasiswa (
nim varchar(16) not null,
id_prodi smallint not null,
nama varchar(10) not null,
tanggal_masuk timestamp not null,
CONSTRAINT pk_nim PRIMARY KEY (nim),
FOREIGN KEY (id_prodi) REFERENCES prodi(id_prodi)
);

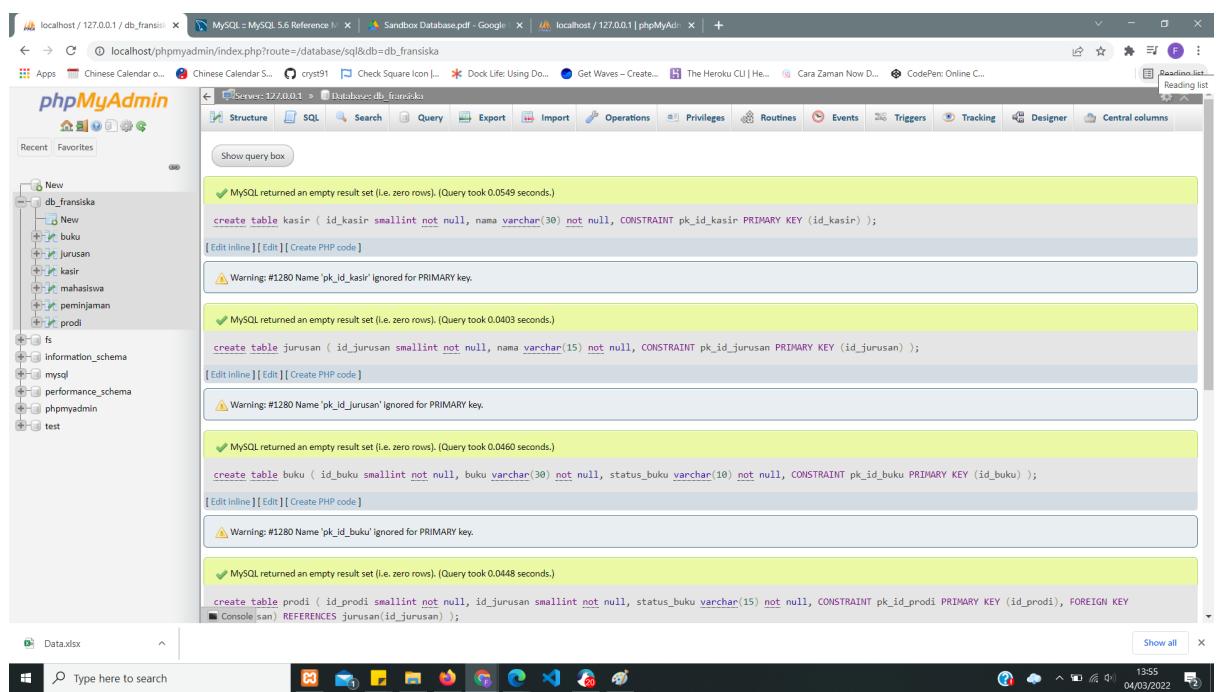
```

```

create table peminjaman (
id_peminjaman smallint not null,
nim varchar(16) not null,
id_buku smallint not null,
id_kasir smallint not null,
jenis_transaksi varchar(10) not null,
tanggal_transaksi timestamp not null,
CONSTRAINT pk_id_peminjaman PRIMARY KEY (id_peminjaman),
FOREIGN KEY (nim) REFERENCES mahasiswa(nim),
FOREIGN KEY (id_buku) REFERENCES buku(id_buku),
FOREIGN KEY (id_kasir) REFERENCES kasir(id_kasir)
);

```

Screenshot



3. Masukkan data dari file excel yang telah diberikan kedalam tabel yang telah dibuat!
Query

```
INSERT INTO kasir(id_kasir, nama) VALUES (1, 'Nurul Insani');
INSERT INTO kasir(id_kasir, nama) VALUES (2, 'Yuli Nuraini');
INSERT INTO kasir(id_kasir, nama) VALUES (3, 'Yunus Dwinanda');

INSERT INTO jurusan(id_jurusan, nama) VALUES (201, 'Teknik Informatika');
INSERT INTO jurusan(id_jurusan, nama) VALUES (202, 'Sistem Informasi');

INSERT INTO prodi(id_prodi, id_jurusan, prodi) VALUES (1, 201, 'Teknik Informatika');
INSERT INTO prodi(id_prodi, id_jurusan, prodi) VALUES (2, 202, 'Sistem Informasi');
INSERT INTO prodi(id_prodi, id_jurusan, prodi) VALUES (3, 201, 'Teknik Komputer');
INSERT INTO prodi(id_prodi, id_jurusan, prodi) VALUES (4, 202, 'Teknologi Informasi');
INSERT INTO prodi(id_prodi, id_jurusan, prodi) VALUES (5, 202, 'Pendidikan Teknologi Informasi');

INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650110, 1, 'Anisa Rembulan', '2019-08-15');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650111, 2, 'Billy Angkasa', '2018-08-20');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650112, 3, 'Dwinata Fajar Yosi', '2019-08-15');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650113, 2, 'Julio Maghribi', '2019-04-04');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650114, 5, 'Kinan Anantasari', '2018-01-01');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650115, 4, 'Muhammad Matahari', '2019-08-15');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650116, 1, 'Priyan Mulawarman', '2018-12-20');
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650117, 2, 'Zafa Yuliandri', '2019-03-20');

INSERT INTO buku(id_buku, buku, status_buku) VALUES (551, 'Harry Potter', 'dipinjam');
INSERT INTO buku(id_buku, buku, status_buku) VALUES (552, 'Algoritma dan Struktur Data', 'dipinjam');
INSERT INTO buku(id_buku, buku, status_buku) VALUES (553, 'Laskar Pelangi', 'dipinjam');
INSERT INTO buku(id_buku, buku, status_buku) VALUES (554, 'Kisah Pahlawan', 'tersedia');
INSERT INTO buku(id_buku, buku, status_buku) VALUES (555, 'Filosofi Teras', 'tersedia');
INSERT INTO buku(id_buku, buku, status_buku) VALUES (558, 'Pemrograman Dasar', 'tersedia');
```

```

INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8244, 650110, 551, 2, 'PINJAM', '2020-01-02');

INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8345, 650112, 552, 2, 'PINJAM', '2020-01-03');

INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8346, 650115, 553, 2, 'PINJAM', '2020-01-04');

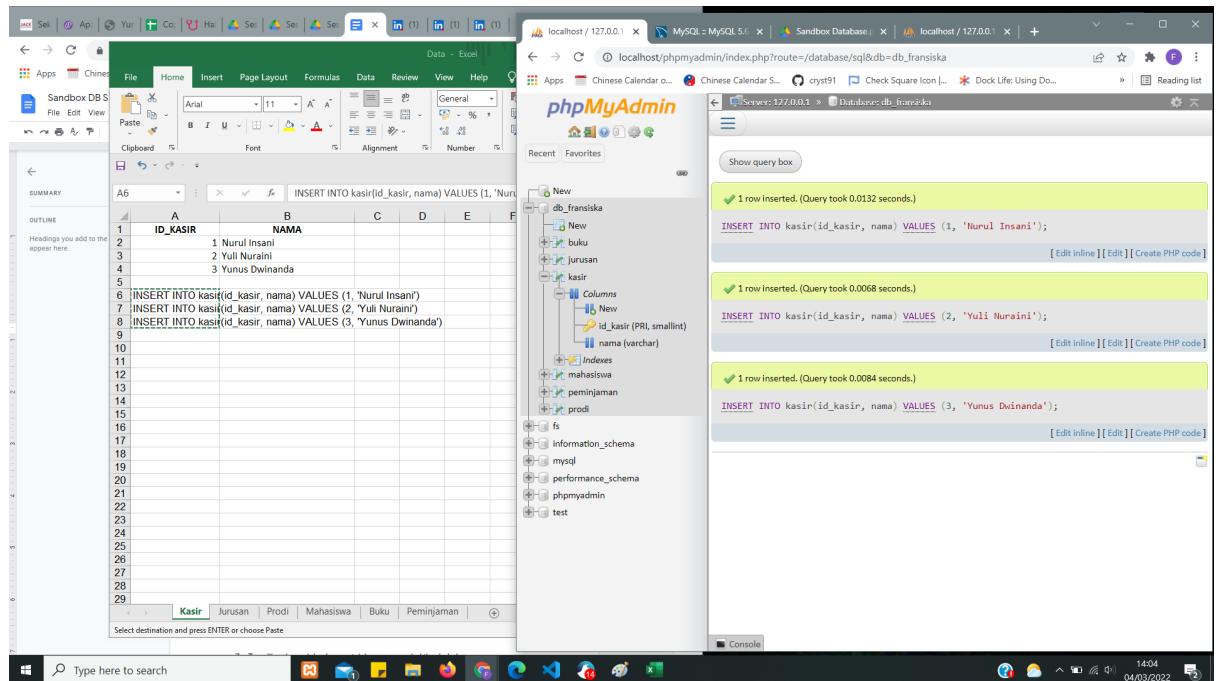
INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8547, 650116, 558, 1, 'KEMBALI', '2020-01-10');

INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8348, 650117, 558, 2, 'PINJAM', '2020-01-12');

INSERT INTO peminjaman(id_peminjaman, nim, id_buku, id_kasir, jenis_transaksi,
tanggal_transaksi) VALUES (8749, 650117, 551, 1, 'KEMBALI', '2020-01-01');

```

Screenshot



The screenshot shows a Windows desktop environment with several windows open. In the foreground, there is an Excel spreadsheet titled 'Sandbox DB Shift Academy' containing two rows of data:

ID_JURUSAN	JURUSAN
201	Teknik Informatika
202	Sistem Informasi

Below the spreadsheet, the 'Query' tab is selected. The query results show:

```

1 INSERT INTO jurusan(id_jurusan, nama) VALUES (201, 'Teknik Informatika')
2 INSERT INTO jurusan(id_jurusan, nama) VALUES (202, 'Sistem Informasi')

```

The second insert statement results in a warning about data truncation.

In the background, a browser window displays the phpMyAdmin interface for the 'db_fransiska' database. The 'Structure' tab is selected, showing the 'jurusan' table with its columns: id_jurusan (smallint) and nama (varchar).

The screenshot continues from the previous step. The Excel spreadsheet now shows both rows inserted successfully:

ID_JURUSAN	JURUSAN
201	Teknik Informatika
202	Sistem Informasi

The 'Query' tab in the foreground shows the successful insertion of both rows:

```

1 INSERT INTO jurusan(id_jurusan, nama) VALUES (201, 'Teknik Informatika')
2 INSERT INTO jurusan(id_jurusan, nama) VALUES (202, 'Sistem Informasi')

```

The background browser window in phpMyAdmin shows the successful insertion of both rows into the 'jurusan' table.

Screenshot showing the import of Mahasiswa data from an Excel file into the 'mahasiswa' table in the 'db_fransiska' database using phpMyAdmin.

Excel Data:

	A	B	C	D
	NIM	ID_PRODI	NAMA	TANGGAL_MASUK
1	650110	1	Anisa Rembulan	15 Agustus 201
2	650111	2	Billy Angkasa	20 Agustus 201
3	650112	3	Dwiwita Fajar Yosi	15 Agustus 201
4	650113	2	Julio Maghribli	4 Februari 201
5	650114	5	Kinan Anantasiari	1 Januari 2018
6	650115	4	Muhammad Matahari	15 Agustus 201
7	650116	1	Priyan Mulawarman	20 Desember 20
8	650117	2	Zafa Yulandri	20 Maret 2019

phpMyAdmin Log:

- 1 row inserted. (Query took 0.0160 seconds.)
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650110, 1, 'Anisa Rembulan', '2019-08-15'); [Edit inline] [Edit] [Create PHP code]
- Warning: #1265 Data truncated for column 'nama' at row 1
- 1 row inserted. (Query took 0.0200 seconds.)
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650111, 2, 'Billy Angkasa', '2018-08-20'); [Edit inline] [Edit] [Create PHP code]
- Warning: #1265 Data truncated for column 'nama' at row 1
- 1 row inserted. (Query took 0.0089 seconds.)
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650112, 3, 'Dwiwita Fajar Yosi', '2019-08-15'); [Edit inline] [Edit] [Create PHP code]
- Warning: #1265 Data truncated for column 'nama' at row 1
- 1 row inserted. (Query took 0.0130 seconds.)
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650113, 2, 'Julio Maghribli', '2019-08-15'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0072 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (551, 'Harry Potter', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0167 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (552, 'Algoritma dan Struktur Data', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0072 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (553, 'Laskar Pelangi', 'tersedia'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0080 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (554, 'Kisah Pahlawan', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0093 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (555, 'Filosofi Teras', 'tersedia'); [Edit inline] [Edit] [Create PHP code]

Screenshot showing the import of Buku data from an Excel file into the 'buku' table in the 'db_fransiska' database using phpMyAdmin.

Excel Data:

	A	B
	ID_BUKU	
1	551	
2	552	
3	553	
4	554	
5	555	
6	556	
7	558	

phpMyAdmin Log:

- 1 row inserted. (Query took 0.0123 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (551, 'Harry Potter', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0167 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (552, 'Algoritma dan Struktur Data', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0072 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (553, 'Laskar Pelangi', 'tersedia'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0080 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (554, 'Kisah Pahlawan', 'dipinjam'); [Edit inline] [Edit] [Create PHP code]
- 1 row inserted. (Query took 0.0093 seconds.)
INSERT INTO buku(id_buku, buku, status_buku) VALUES (555, 'Filosofi Teras', 'tersedia'); [Edit inline] [Edit] [Create PHP code]

4. Tampilkan ID_PEMINJAMAN, BUKU, JENIS_TRANSAKSI, TANGGAL_TRANSAKSI, NAMA MAHASISWA, dan NAMA KASIR!

Query

```
SELECT id_peminjaman, id_buku, jenis_transaksi, tanggal_transaksi, nim, id_kasir
FROM peminjaman;
```

v

```
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, nim, id_kasir
FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
```

v

```
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, nim, k.nama
FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
```

v

```
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, m.nama,
k.nama
FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
JOIN mahasiswa m ON p.nim = m.nim
```

Screenshot

4. Tampilkan ID PEMINJAMAN, BUKU, JENIS_TRANSAKSI, TANGGAL_TRANSAKSI, NIM MAHASISWA, dan NAMA KASIR

```
SELECT id_peminjaman, id_buku, jenis_transaksi, tanggal_transaksi, nim, nama
FROM peminjaman
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
JOIN mahasiswa m ON p.nim = m.nim
v
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, nim, nama
FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
JOIN mahasiswa m ON p.nim = m.nim
v
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, nim, nama
FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
JOIN mahasiswa m ON p.nim = m.nim
v
```

5. Tampilkan Mahasiswa yang paling banyak terlibat transaksi

```
Query
```

Screenshot

localhost / MySQL / Sandbox DB Shift Academy / localhost / localhost / Cara Mem... +

localhost/phpmyadmin/index.php?route=/table/sql&db=db_fransiska&table=mahasiswa

phpMyAdmin

Recent Favorites

New db_fransiska New buku Columns New id_buku (PRI, smallint) status_buku (varchar) Indexes Jurusan kasir mahasiswa Columns New id_kasir (PRI, smallint) nama (varchar) Indexes peminjaman prodi

Showing rows 0 - 5 (6 total), Query took 0.0094 seconds.

```
SELECT id_peminjaman, b.buku, jenis_transaksi, tanggal_transaksi, m.nama, k.nama
FROM peminjaman p JOIN buku b ON p.id_buku = b.id_buku JOIN kasir k ON p.id_kasir = k.id_kasir JOIN mahasiswa m ON p.nim = m.nim;
```

Profiling | Edit inline | Edit | Explain SQL | Create PHP code | Refresh | Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: + Options

id_peminjaman	b.buku	jenis_transaksi	tanggal_transaksi	nama
8547	Pemrograman Dasar	KEMBALI	2020-01-10 00:00:00	Priyan Mul Nurul Insani
8749	Harry Potter	KEMBALI	2020-01-01 00:00:00	Zafa Yulia Nurul Insani
8244	Harry Potter	PINJAM	2020-01-02 00:00:00	Anisa Remb Yuli Nuraini
8345	Algoritma dan Struktur Data	PINJAM	2020-01-03 00:00:00	Dwinata Fa Muhammad Yuli Nuraini
8346	Laskar Pelangi	PINJAM	2020-01-04 00:00:00	M
8348	Pemrograman Dasar	PINJAM	2020-01-12 00:00:00	Zafa Yulia Yuli Nuraini

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: Query results operations

Console | Close to ellipsis | Favourites | Display chart | Create view

Type here to search

5. Tampilkan Mahasiswa yang paling banyak terlibat transaksi!
- Query

```
SELECT m.nama, count(m.nim) AS SUM_COUNT FROM peminjaman p
JOIN mahasiswa m on m.nim = p.nim
GROUP by m.nama
ORDER by SUM_COUNT desc LIMIT 1
```

Screenshot

5. Tampilkan Mahasiswa yang paling banyak terlibat transaksi

```
SELECT count(nim) AS SUM_COUNT FROM peminjaman p
JOIN mahasiswa m on m.nim = p.nim
GROUP by m.nama
ORDER by SUM_COUNT desc LIMIT 1
```

Screenshot

6. Searang mahasiswa baru mendafat untuk menjadi anggota perpustakaan, tambahkan data mahasiswa tersebut menggunakan nama kalian dan tanggal masuk 1 bulan lalu

Query

Screenshot

7. Tampilkan banyak kasir yang telah mengurus dari tiap buku

Query

Screenshot

8. Ubahlah 3 jenis transaksi pertama pada tabel peminjaman dengan jenis transaksi pinjam menjadi kembalikan, dan status buku tersebut juga diubah dari dipinjam menjadi tersedia

Query

Screenshot

localhost / MySQL / Sandbox DB Shift Academy / localhost / localhost / mencari tri... / Fungsi Cou... +

localhost/phpmyadmin/index.php?route=/table/sql&db=db_fransiska&table=m

phpMyAdmin

Recent Favorites

New db_fransiska New buku Jurusan kasir mahasiswa Columns New id_kasir (PRI, smallint) nama (varchar) Indexes peminjaman prodi fs information_schema mysql performance_schema phpmyadmin test

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total), Query took 0.0032 seconds.

```
SELECT m.nama, count(m.nim) AS SUM_COUNT FROM peminjaman p JOIN mahasiswa m on m.nim = p.nim GROUP by m.nama ORDER by SUM_COUNT desc LIMIT 1;
```

Profiling | Edit inline | Edit | Explain SQL | Create PHP code | Refresh | + Options

nama	SUM_COUNT
Zafa Yulia	2

Query results operations

Print | Copy to clipboard | Export | Display chart | Create view

Bookmark this SQL query

Label: Let every user access this bookmark Bookmark this SQL query

Console

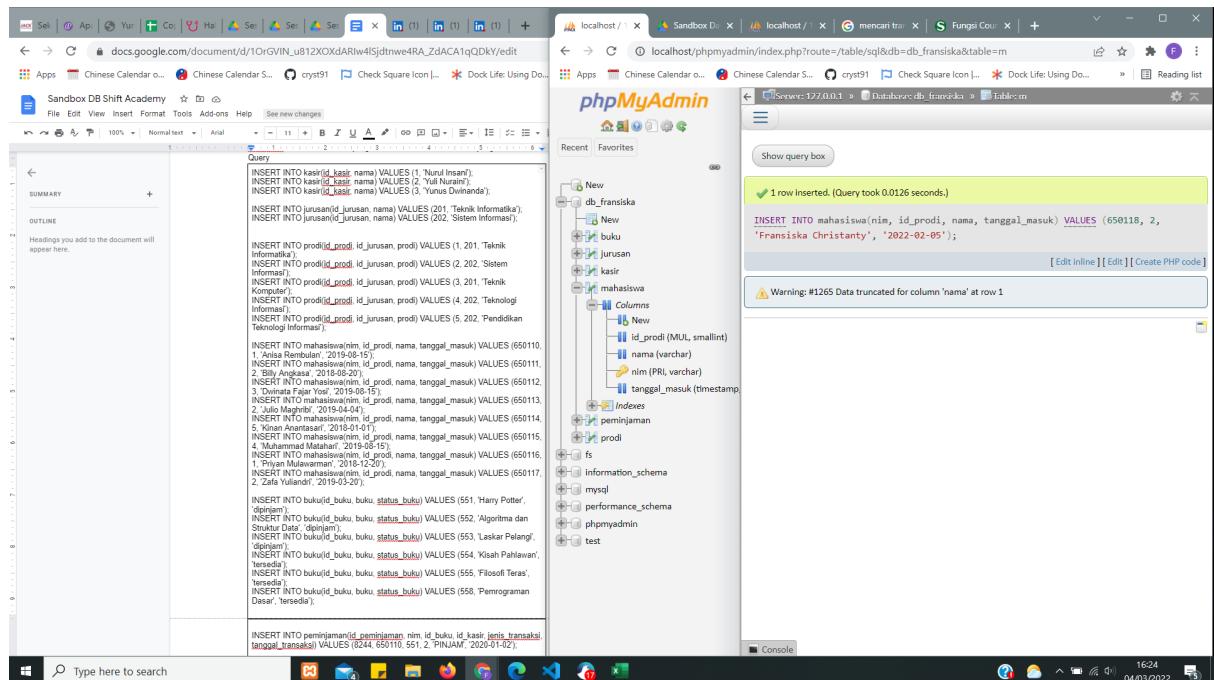
Type here to search

6. Seorang mahasiswa baru mendaftar untuk menjadi anggota perpustakaan, tambahkan data mahasiswa tersebut menggunakan nama kalian dan tanggal masuk 1 bulan lalu!

Query

```
INSERT INTO mahasiswa(nim, id_prodi, nama, tanggal_masuk) VALUES (650118, 2, 'Fransiska Christanty', '2022-02-05');
```

Screenshot

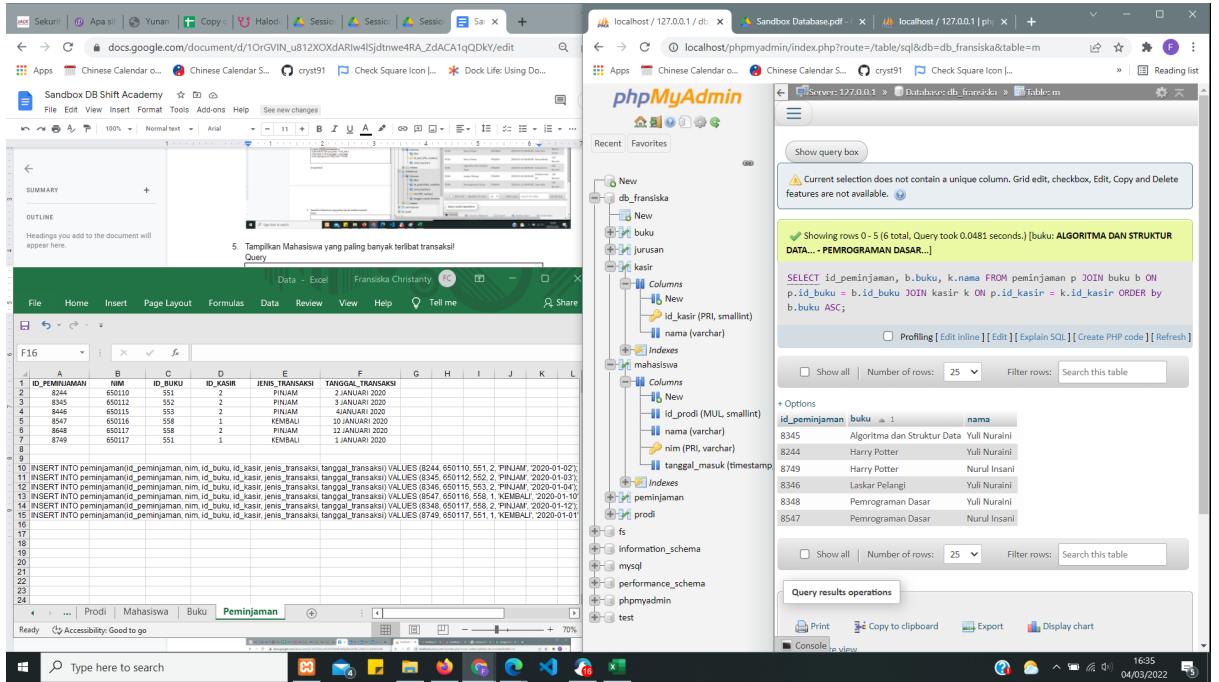


7. Tampilkan banyak kasir yang telah mengurus dari tiap buku!

Query

```
SELECT id_peminjaman, b.buku, k.nama FROM peminjaman p
JOIN buku b ON p.id_buku = b.id_buku
JOIN kasir k ON p.id_kasir = k.id_kasir
ORDER by b.buku ASC
```

Screenshot

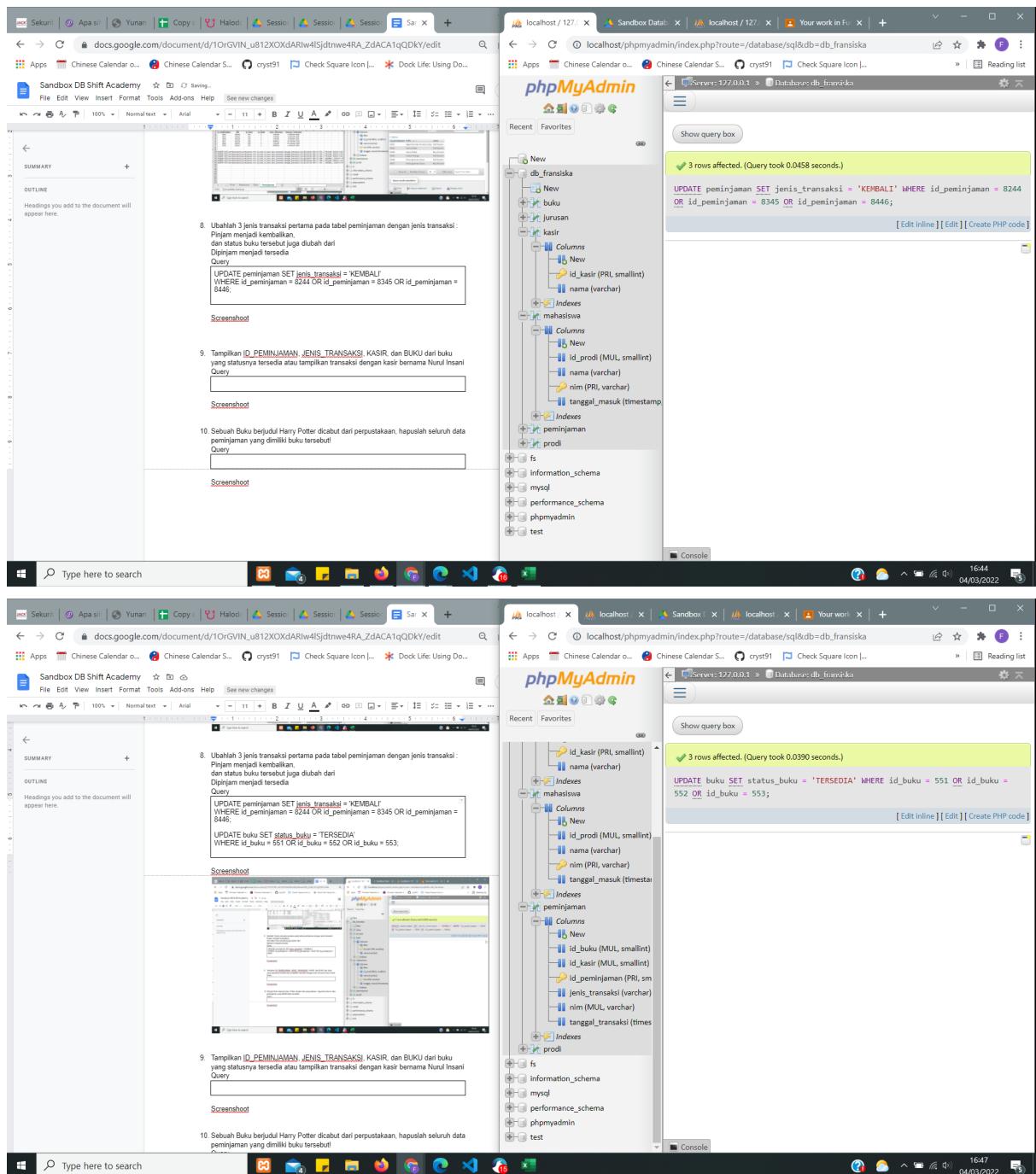


8. Ubahlah 3 jenis transaksi pertama pada tabel peminjaman dengan jenis transaksi :
Pinjam menjadi kembalikan,
dan status buku tersebut juga diubah dari
Dipinjam menjadi tersedia
Query

```
UPDATE peminjaman SET jenis_transaksi = 'KEMBALI'
WHERE id_peminjaman = 8244 OR id_peminjaman = 8345 OR id_peminjaman = 8446;
```

```
UPDATE buku SET status_buku = 'tersedia'
WHERE id_buku = 551 OR id_buku = 552 OR id_buku = 553;
```

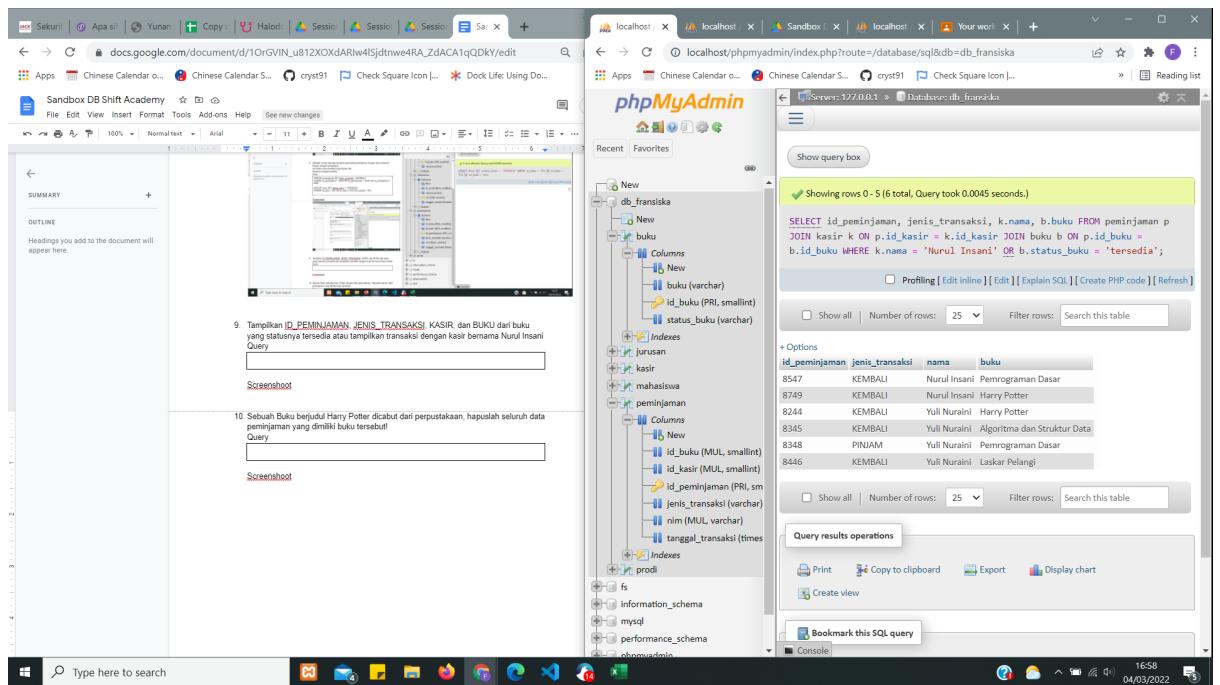
Screenshot



9. Tampilkan ID_PEMINJAMAN, JENIS_TRANSAKSI, KASIR, dan BUKU dari buku yang statusnya tersedia atau tampilkan transaksi dengan kasir bernama Nurul Insani
Query

```
SELECT id_peminjaman, jenis_transaksi, k.nama, b.buku FROM peminjaman p
JOIN kasir k ON p.id_kasir = k.id_kasir
JOIN buku b ON p.id_buku = b.id_buku
WHERE k.nama = 'Nurul Insani' OR b.status_buku = 'tersedia'
```

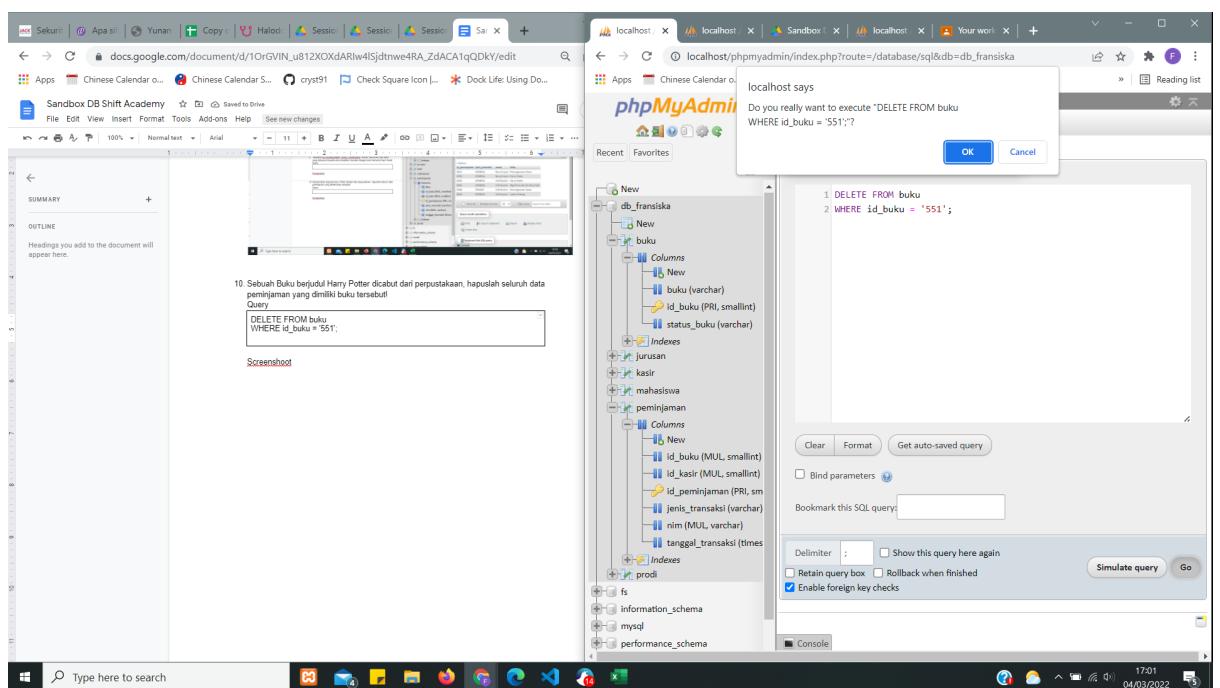
Screenshot



10. Sebuah Buku berjudul Harry Potter dicabut dari perpustakaan, hapuslah seluruh data peminjaman yang dimiliki buku tersebut!
- Query

```
DELETE FROM peminjaman
WHERE id_buku = '551';
DELETE FROM buku
WHERE id_buku = '551';
```

Screenshot



Sekurit... Apa sii... Yunan... Copy... Halodi... Session... Session... Sai X

localhost: / localhost/phpmyadmin/index.php?route=/database/sql&db=db_fransiska

Apps Chinese Calendar o... Chinese Calendar S... cryst91 Check Square Icon ... Dock Life: Using Do...

localhost: / localhost: / Sandbox | x localhost: / localhost: / Your work... x +

phpMyAdmin

Recent Favorites

2 rows affected. (Query took 0.0553 seconds.)

```
DELETE FROM peminjaman WHERE id_buku = '551';
```

1 row affected. (Query took 0.0106 seconds.)

```
DELETE FROM buku WHERE id_buku = '551';
```

Show query box

New

- buku
- jurusan
- kasir
- mahasiswa
- peminjaman
- Column
- Indexes
- fs
- information_schema
- mysql
- performance_schema
- phpmyadmin
- test

17:03 04/03/2022

Sandbox DB Shift Academy

SUMMARY

OUTLINE

Headings you add to the document will appear here.

10. Sebuah buku berjudul Harry Potter dicabut dari perpustakaan, hapuslah seluruh data peminjaman yang dimiliki buku tersebut!

Query

```
DELETE FROM buku
WHERE id_buku = '551';
```

Data - Excel Fransiska Christianity FC

File Home Insert Page Layout Formulas Data Review View Help Tell me Share

G7

A	B	C	D	E	F	G	H	I	J	K	L
ID_PEMINJAMAN	nim	ID_BUKU	ID_KASIR	JENIS_TRANSAKSI	TANGGAL_TRANSAKSI						
1	8344	650110	1	PINJAM	3 JANUARI 2020						
2	8345	650112	552	2	PINJAM	3 JANUARI 2020					
3	8446	650113	553	2	PINJAM	4 JANUARI 2020					
4	8447	650115	558	1	KEMBALI	10 JANUARI 2020					
5	8644	650117	558	2	PINJAM	12 JANUARI 2020					
6	8749	650117	551	1	KEMBALI	1 JANUARI 2020					
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											

Ready Accessibility: Good to go

Type here to search