Sistem Mini Bioskop

DATABASE SYSTEM

Oleh: Andini Prihartiningtias
Nim:24120510003

TICKET
12345

Entitas Dan Atribut

User

PK	id_user
	nama_user
	no_telepon
	email

Film

PK	id_film
	judul
	img_poster
	genre
	sinopsis

Jadwal Tayang

PK	id_jadwal
	tanggal
	jam_mulai
	jam_selesai
FK	id_film
Fk	id_bioskop

Bioskop

PK	id_bioskop
	nama_bioskop
	lokasi

Transaksi

PK	id_transaksi
	tanggal_transaksi
	total_harga
	status_transaksi
FK	id_user
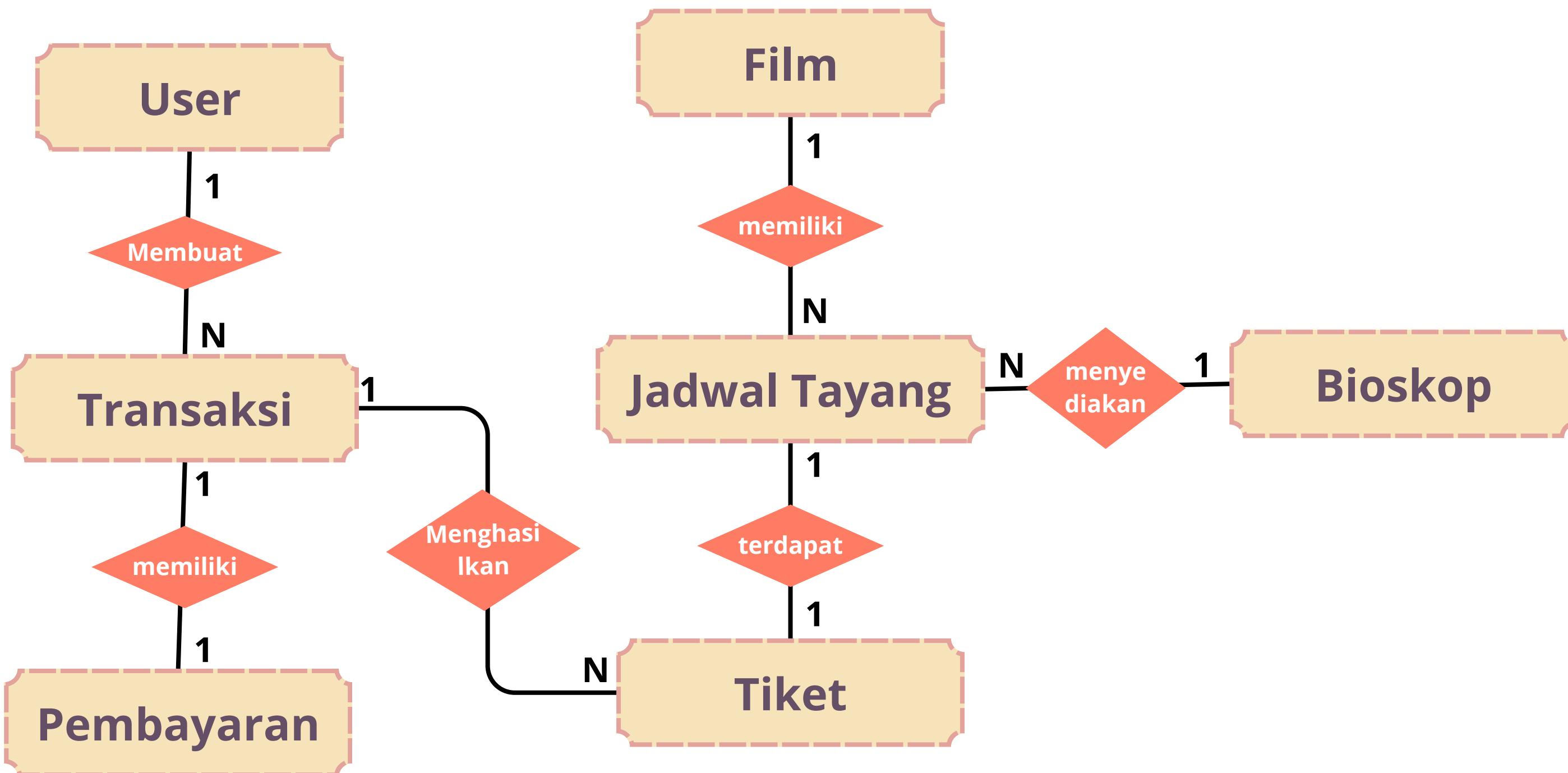
Tiket

PK	id_tiket
	jenis_kursi
	no_kursi
	harga
FK	id_jadwal
Fk	id_transaksi
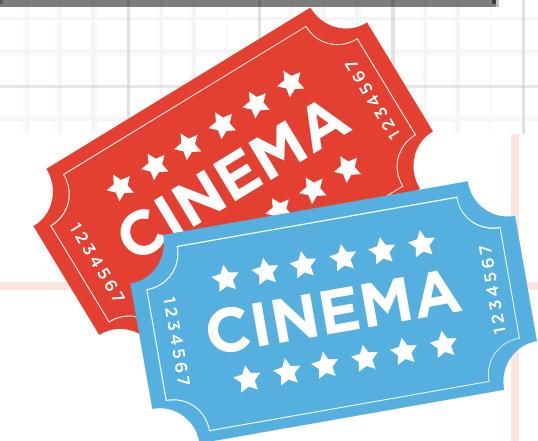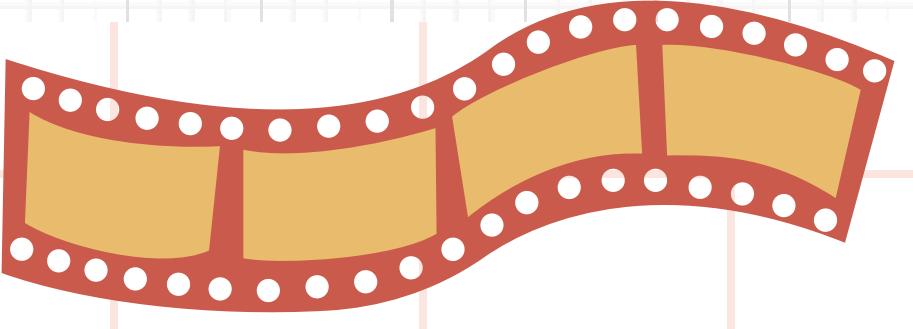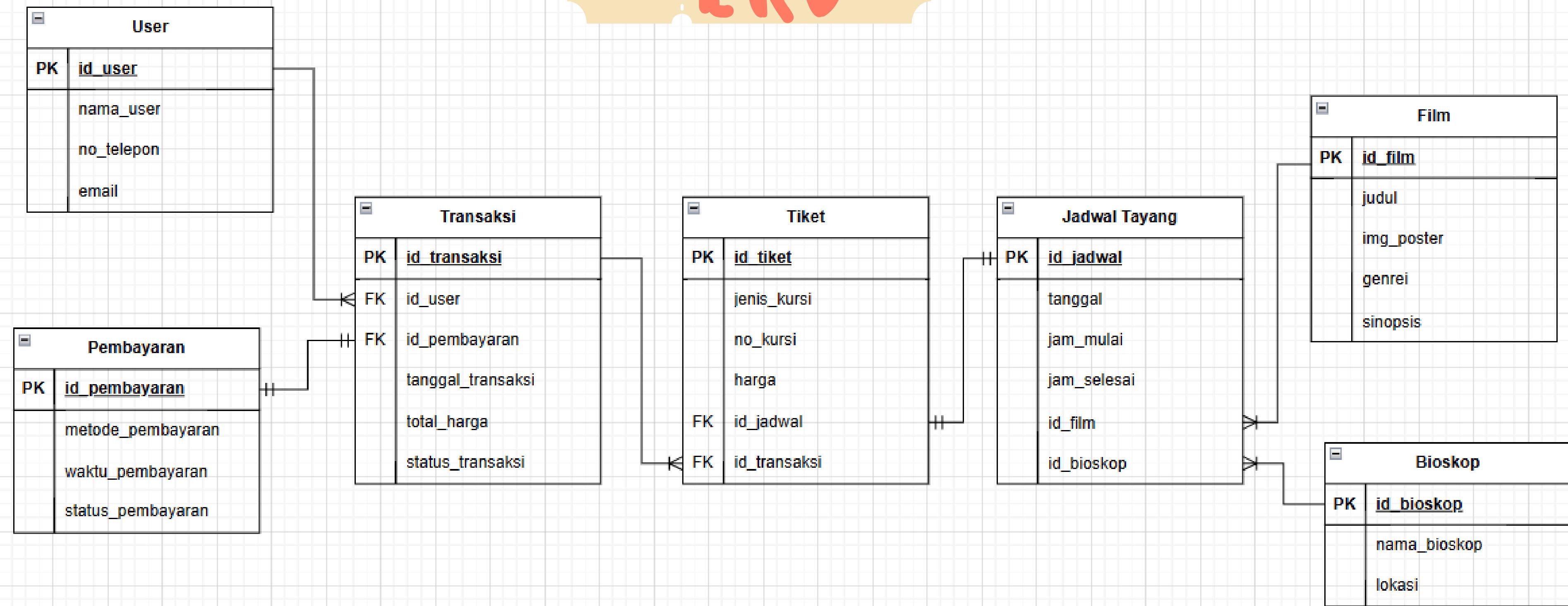
Pembayaran

PK	id_pembayaran
	metode_pembayaran
	waktu_pembayaran
	status_pembayaran
FK	id_transaksi

RELATION

ERD

User
PK	id_user
	nama_user
	no_telepon
	email

Film
PK	id_film
	judul
	img_poster
	genrei
	sinopsis

Transaksi
PK	id_transaksi
FK	id_user
FK	id_pembayaran
	tanggal_transaksi
	total_harga
	status_transaksi

Tiket
PK	id_tiket
	jenis_kursi
	no_kursi
	harga
FK	id_jadwal
FK	id_transaksi

Jadwal Tayang
PK	id_jadwal
	tanggal
	jam_mulai
	jam_selesai
	id_film
	id_bioskop

Pembayaran
PK	id_pembayaran
	metode_pembayaran
	waktu_pembayaran
	status_pembayaran

Bioskop
PK	id_bioskop
	nama_bioskop
	lokasi

Normalisasi

UNF

id_transaksi	nama_user	no_tlpn	film	jadwal	nama_bioskop	kursi	total_harga	metode_pembayaran
T101	Sakeer	821234567	How To Train Your Dragon	6/15/2025 14:00	XXI	A1, B3	50000	QRIS
T102	Kaizer	822345678	ELIO	6/15/2025 18:00	Cinépolis	B2	25000	Kartu Kredit
T103	Arli	823456789	Gowok: Kamasutra Cut	6/16/2025 10:00	CGV	C1, C2	70000	Transfer Bank
T104	Mulan	824567890	JUMBO	6/16/2025 12:30	Platinum Cineplex	D3	45000	Cash
T105	Erin	825678910	Omniscient Reader's Viewpoint	6/17/2025 16:00	XXI	E1, E2	90000	Cash

1NF

id_transaksi	nama_user	no_tlpn	film	tanggal	jam_mulai	nama bioskop	kursi	total_harga	metode_pembayaran
T101	Sakeer	821234567	How To Train Your Dragon	6/15/2025	14:00	XXI	A1	50000	QRIS
T101	Sakeer	821234567	How To Train Your Dragon	6/15/2025	14:00	XXI	B3	50000	QRIS
T102	Kaizer	822345678	ELIO	6/15/2025	18:00	Cinépolis	B2	25000	Kartu Kredit
T103	Arli	823456789	Gowok: Kamasutra Cut	6/16/2025	10:00	CGV	C1	70000	Transfer Bank
T103	Arli	823456789	Gowok: Kamasutra Cut	6/16/2025	10:00	CGV	C2	70000	Transfer Bank
T104	Mulan	824567890	JUMBO	6/16/2025	12:30	Platinum Cineplex	D3	45000	Cash
T105	Erin	825678910	Omniscient Reader's Viewpoint	6/17/2025	16:00	XXI	E1	90000	Cash
T105	Erin	825678910	Omniscient Reader's Viewpoint	6/17/2025	16:00	XXI	E2	90000	Cash

2NF

table film

id_film	judul_film
F101	How To Train Your Dragon
F102	ELIO
F103	Gowok: Kamasutra Cut
F104	JUMBO
F105	Omniscient Reader's Viewpoint

table user

id_user	nama_user	no_tlpn
U101	Sakeer	821234567
U102	Kaizer	822345678
U103	Arli	823456789
U104	Mulan	824567890
U105	Erin	825678910

table transaksi

id_transaksi	id_user	total_harga	metode_pembayaran
T101	U101	50000	QRIS
T102	U102	25000	Kartu Kredit
T103	U103	70000	Transfer Bank
T104	U104	45000	Cash
T105	U105	90000	Cash

table jadwal_tayang

id jadwal	id_film	tanggal	jam_mulai	nama_bioskop
J101	F101	6/15/2025	14:00	XXI
J102	F102	6/15/2025	18:00	Cinépolis
J103	F103	6/16/2025	10:00	CGV
J104	F104	6/16/2025	12:30	Platinum Cineplex
J105	F105	6/17/2025	16:00	XXI

table tiket

id_tiket	id jadwal	id_transaksi	no_kursi
TK101	J101	T101	A1
TK102	J101	T101	B3
TK103	J102	T102	B2
TK104	J103	T103	C1
TK105	J103	T103	C2
TK106	J104	T104	D3
TK107	J105	T105	E1
TK108	J105	T105	E2

3NF

table transaksi

id_transaksi	id_user	id_pembayaran	total_harga
T101	U101	P101	50000
T102	U102	P102	25000
T103	U103	P103	70000
T104	U104	P104	45000
T105	U105	P105	90000

table_pembayaran

id_pembayaran	metode_pembayaran
P101	QRIS
P102	Kartu Kredit
P103	Transfer Bank
P104	Cash
P105	Cash

table jadwal_tayang

id jadwal	id_film	id_bioskop	tanggal	jam_mulai
J101	F101	B101	6/15/2025	14:00
J102	F102	B102	6/15/2025	18:00
J103	F103	B103	6/16/2025	10:00
J104	F104	B104	6/16/2025	12:30
J105	F105	B101	6/17/2025	16:00

table bioskop

id_bioskop	nama_bioskop
B101	XXI
B102	Cinépolis
B103	CGV
B104	Platinum Cineplex

Create Database

```
MariaDB [(none)]> create database mini_bioskop;
Query OK, 1 row affected (0.003 sec)

MariaDB [(none)]> use mini_bioskop;
Database changed
```

```
MariaDB [mini_bioskop]> show databases;
+--------------------+
| Database           |
+--------------------+
| fyp_tiktok         |
| information_schema |
| mini_bioskop       |
| mysql              |
| ombeanqu           |
| performance_schema |
| phpmyadmin         |
| test               |
+--------------------+
8 rows in set (0.056 sec)
```

Created Insert Tables User

```
MariaDB [mini_bioskop]> CREATE TABLE user (
    ->     id_user VARCHAR(10) PRIMARY KEY,
    ->     nama_user VARCHAR(50),
    ->     no_tlpn VARCHAR(15)
    -> );
Query OK, 0 rows affected (0.008 sec)

MariaDB [mini_bioskop]> INSERT INTO user (id_user, nama_user, no_tlpn) VALUES
    -> ('U101', 'Sakeer', '821234567'),
    -> ('U102', 'Kaizer', '822345678'),
    -> ('U103', 'Arli', '823456789'),
    -> ('U104', 'Mulan', '824567890'),
    -> ('U105', 'Erin',  '825678910');
Query OK, 5 rows affected (0.062 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM user;
+---------+-----------+-----------+
| id_user | nama_user | no_tlpn   |
+---------+-----------+-----------+
| U101    | Sakeer    | 821234567 |
| U102    | Kaizer    | 822345678 |
| U103    | Arli      | 823456789 |
| U104    | Mulan     | 824567890 |
| U105    | Erin      | 825678910 |
+---------+-----------+-----------+
```

Created& Insert Tables Film
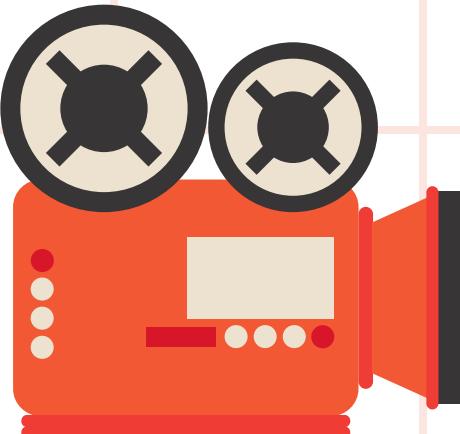
```
MariaDB [mini_bioskop]> CREATE TABLE film (
    ->      id_film VARCHAR(10) PRIMARY KEY,
    ->      judul_film VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.010 sec)

MariaDB [mini_bioskop]> INSERT INTO film (id_film, judul_film) VALUES
    -> ('F101', 'How To Train Your Dragon'),
    -> ('F102', 'ELIO'),
    -> ('F103', 'Gowok: Kamasutra Cut'),
    -> ('F104', 'JUMBO'),
    -> ('F105', 'Omniscient Reader''s Viewpoint');
Query OK, 5 rows affected (0.005 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM film;
+----------+------------------------------+
| id_film  | judul_film                   |
+----------+------------------------------+
| F101     | How To Train Your Dragon     |
| F102     | ELIO                         |
| F103     | Gowok: Kamasutra Cut         |
| F104     | JUMBO                        |
| F105     | Omniscient Reader's Viewpoint |
+----------+------------------------------+
5 rows in set (0.001 sec)
```

Created& Insert Tables Bioskop

```
MariaDB [mini_bioskop]> CREATE TABLE bioskop (
    ->      id_bioskop VARCHAR(10) PRIMARY KEY,
    ->      nama_bioskop VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.014 sec)

MariaDB [mini_bioskop]> INSERT INTO bioskop (id_bioskop, nama_bioskop) VALUES
    -> ('B101', 'XXI'),
    -> ('B102', 'Cinépolis'),
    -> ('B103', 'CGV'),
    -> ('B104', 'Platinum Cineplex');
Query OK, 4 rows affected (0.011 sec)
Records: 4  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM bioskop;
+------------+-------------------+
| id_bioskop | nama_bioskop      |
+------------+-------------------+
| B101       | XXI               |
| B102       | Cinépolis         |
| B103       | CGV               |
| B104       | Platinum Cineplex |
+------------+-------------------+
4 rows in set (0.001 sec)
```

Created& Insert Tables Pembayaran

```
MariaDB [mini_bioskop]> CREATE TABLE pembayaran (
    ->     id_pembayaran VARCHAR(10) PRIMARY KEY,
    ->     metode_pembayaran VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.009 sec)

MariaDB [mini_bioskop]> INSERT INTO pembayaran (id_pembayaran, metode_pembayaran) VALUES
    -> ('P101', 'QRIS'),
    -> ('P102', 'Kartu Kredit'),
    -> ('P103', 'Transfer Bank'),
    -> ('P104', 'Cash'),
    -> ('P105', 'Cash');
Query OK, 5 rows affected (0.005 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM pembayaran;
+---------------+-------------------+
| id_pembayaran | metode_pembayaran |
+---------------+-------------------+
| P101          | QRIS              |
| P102          | Kartu Kredit      |
| P103          | Transfer Bank     |
| P104          | Cash              |
| P105          | Cash              |
+---------------+-------------------+
5 rows in set (0.001 sec)
```

Created& Insert Tables Jadwal_tayang

```
MariaDB [mini_bioskop]> CREATE TABLE jadwal_tayang (
    ->      id_jadwal VARCHAR(10) PRIMARY KEY,
    ->      id_film VARCHAR(10),
    ->      id_bioskop VARCHAR(10),
    ->      tanggal DATE,
    ->      jam_mulai TIME,
    ->      FOREIGN KEY (id_film) REFERENCES film(id_film),
    ->      FOREIGN KEY (id_bioskop) REFERENCES bioskop(id_bioskop)
    -> );
Query OK, 0 rows affected (0.047 sec)

MariaDB [mini_bioskop]> INSERT INTO jadwal_tayang (id_jadwal, id_film, id_bioskop, tanggal, jam_mulai) VALUES
    -> ('J101', 'F101', 'B101', '2025-06-15', '14:00:00'),
    -> ('J102', 'F102', 'B102', '2025-06-15', '18:00:00'),
    -> ('J103', 'F103', 'B103', '2025-06-16', '10:00:00'),
    -> ('J104', 'F104', 'B104', '2025-06-16', '12:30:00'),
    -> ('J105', 'F105', 'B101', '2025-06-17', '16:00:00');
Query OK, 5 rows affected (0.006 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM jadwal_tayang;
+-----------+---------+------------+------------+------------+
| id_jadwal | id_film | id_bioskop | tanggal    | jam_mulai  |
+-----------+---------+------------+------------+------------+
| J101      | F101    | B101       | 2025-06-15 | 14:00:00   |
| J102      | F102    | B102       | 2025-06-15 | 18:00:00   |
| J103      | F103    | B103       | 2025-06-16 | 10:00:00   |
| J104      | F104    | B104       | 2025-06-16 | 12:30:00   |
| J105      | F105    | B101       | 2025-06-17 | 16:00:00   |
+-----------+---------+------------+------------+------------+
5 rows in set (0.004 sec)
```

Created& Insert Tables Transaksi

```
MariaDB [mini_bioskop]> CREATE TABLE transaksi (
    ->     id_transaksi VARCHAR(10) PRIMARY KEY,
    ->     id_user VARCHAR(10),
    ->     id_pembayaran VARCHAR(10),
    ->     total_harga INT,
    ->
    ->     FOREIGN KEY (id_user) REFERENCES user(id_user),
    ->     FOREIGN KEY (id_pembayaran) REFERENCES pembayaran(id_pembayaran)
    -> );
Query OK, 0 rows affected (0.038 sec)

MariaDB [mini_bioskop]> INSERT INTO transaksi (id_transaksi, id_user, id_pembayaran, total_harga) VALUES
    -> ('T101', 'U101', 'P101', 50000),
    -> ('T102', 'U102', 'P102', 25000),
    -> ('T103', 'U103', 'P103', 70000),
    -> ('T104', 'U104', 'P104', 45000),
    -> ('T105', 'U105', 'P105', 90000);
Query OK, 5 rows affected (0.005 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM transaksi;
+--------------+---------+---------------+-------------+
| id_transaksi | id_user | id_pembayaran | total_harga |
+--------------+---------+---------------+-------------+
| T101         | U101    | P101          |       50000 |
| T102         | U102    | P102          |       25000 |
| T103         | U103    | P103          |       70000 |
| T104         | U104    | P104          |       45000 |
| T105         | U105    | P105          |       90000 |
+--------------+---------+---------------+-------------+
5 rows in set (0.001 sec)
```

Created& Insert Tables Tiket

```
MariaDB [mini_bioskop]> CREATE TABLE tiket (
    ->      id_tiket VARCHAR(10) PRIMARY KEY,
    ->      id_jadwal VARCHAR(10),
    ->      id_transaksi VARCHAR(10),
    ->      no_kursi VARCHAR(5)
    -> );
Query OK, 0 rows affected (0.010 sec)

MariaDB [mini_bioskop]> INSERT INTO tiket (id_tiket, id_jadwal, id_transaksi, no_kursi) VALUES
    -> ('TK101', 'J101', 'T101', 'A1'),
    -> ('TK102', 'J101', 'T101', 'B3'),
    -> ('TK103', 'J102', 'T102', 'B2'),
    -> ('TK104', 'J103', 'T103', 'C1'),
    -> ('TK105', 'J103', 'T103', 'C2'),
    -> ('TK106', 'J104', 'T104', 'D3'),
    -> ('TK107', 'J105', 'T105', 'E1'),
    -> ('TK108', 'J105', 'T105', 'E2');
Query OK, 8 rows affected (0.011 sec)
Records: 8  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> SELECT * FROM tiket;
+----------+-----------+--------------+----------+
| id_tiket | id_jadwal | id_transaksi | no_kursi |
+----------+-----------+--------------+----------+
| TK101    | J101      | T101         | A1       |
| TK102    | J101      | T101         | B3       |
| TK103    | J102      | T102         | B2       |
| TK104    | J103      | T103         | C1       |
| TK105    | J103      | T103         | C2       |
| TK106    | J104      | T104         | D3       |
| TK107    | J105      | T105         | E1       |
| TK108    | J105      | T105         | E2       |
+----------+-----------+--------------+----------+
8 rows in set (0.001 sec)
```

Alter Tables Tiket

```
MariaDB [mini_bioskop]> ALTER TABLE tiket
    -> ADD CONSTRAINT fk_tiket_jadwal
    -> FOREIGN KEY (id_jadwal) REFERENCES jadwal_tayang(id_jadwal);
Query OK, 8 rows affected (0.047 sec)
Records: 8  Duplicates: 0  Warnings: 0

MariaDB [mini_bioskop]> ALTER TABLE tiket
    -> ADD CONSTRAINT fk_tiket_transaksi
    -> FOREIGN KEY (id_transaksi) REFERENCES transaksi(id_transaksi);
Query OK, 8 rows affected (0.052 sec)
Records: 8  Duplicates: 0  Warnings: 0
```

Inner Join

```
MariaDB [mini_bioskop]> SELECT
    ->      u.nama_user,
    ->      f.judul_film,
    ->      j.tanggal,
    ->      j.jam_mulai,
    ->      t.no_kursi,
    ->      tr.total_harga
    -> FROM tiket t
    -> INNER JOIN transaksi tr ON t.id_transaksi = tr.id_transaksi
    -> INNER JOIN user u ON tr.id_user = u.id_user
    -> INNER JOIN jadwal_tayang j ON t.id_jadwal = j.id_jadwal
    -> INNER JOIN film f ON j.id_film = f.id_film;
+-----------+-----------------------------+------------+-----------+----------+-------------+
| nama_user | judul_film                  | tanggal    | jam_mulai | no_kursi | total_harga |
+-----------+-----------------------------+------------+-----------+----------+-------------+
| Sakeer    | How To Train Your Dragon    | 2025-06-15 | 14:00:00  | A1       |       50000 |
| Sakeer    | How To Train Your Dragon    | 2025-06-15 | 14:00:00  | B3       |       50000 |
| Kaizer    | ELIO                        | 2025-06-15 | 18:00:00  | B2       |       25000 |
| Arli      | Gowok: Kamasutra Cut        | 2025-06-16 | 10:00:00  | C1       |       70000 |
| Arli      | Gowok: Kamasutra Cut        | 2025-06-16 | 10:00:00  | C2       |       70000 |
| Mulan     | JUMBO                       | 2025-06-16 | 12:30:00  | D3       |       45000 |
| Erin      | Omniscient Reader's Viewpoint | 2025-06-17 | 16:00:00 | E1      |       90000 |
| Erin      | Omniscient Reader's Viewpoint | 2025-06-17 | 16:00:00 | E2      |       90000 |
+-----------+-----------------------------+------------+-----------+----------+-------------+
8 rows in set (0.004 sec)
```

Left & Right Join

Left Join Jadwal-Film

```
MariaDB [mini_bioskop]> SELECT
    ->     f.judul_film,
    ->     j.id_jadwal
    -> FROM film f
    -> LEFT JOIN jadwal_tayang j ON f.id_film = j.id_film;
+-----------------------------+------------+
| judul_film                  | id_jadwal |
+-----------------------------+------------+
| How To Train Your Dragon    | J101       |
| ELIO                        | J102       |
| Gowok: Kamasutra Cut        | J103       |
| JUMBO                       | J104       |
| Omniscient Reader's Viewpoint | J105     |
+-----------------------------+------------+
5 rows in set (0.002 sec)
```

Right Join bioskop-jadwal

```
MariaDB [mini_bioskop]> SELECT
    ->     b.nama_bioskop,
    ->     j.id_jadwal
    -> FROM bioskop b
    -> RIGHT JOIN jadwal_tayang j ON b.id_bioskop = j.id_bioskop;
+--------------------+------------+
| nama_bioskop       | id_jadwal |
+--------------------+------------+
| XXI                | J101       |
| XXI                | J105       |
| Cinépolis          | J102       |
| CGV                | J103       |
| Platinum Cineplex  | J104       |
+--------------------+------------+
5 rows in set (0.005 sec)
```

Simulasi Transaksi

```
MariaDB [mini_bioskop]> SET TRANSACTION ISOLATION LEVEL SERIALIZABLE;
Query OK, 0 rows affected (0.000 sec)

MariaDB [mini_bioskop]> START TRANSACTION;
Query OK, 0 rows affected (0.000 sec)

MariaDB [mini_bioskop]> INSERT INTO transaksi (id_transaksi, id_user, id_pembayaran, total_harga)
    -> VALUES ('T501', 'U102', 'P103', 45000);
Query OK, 1 row affected (0.077 sec)

MariaDB [mini_bioskop]> INSERT INTO tiket (id_tiket, id_jadwal, id_transaksi, no_kursi)
    -> VALUES ('TK501', 'J102', 'T501', 'B2');
Query OK, 1 row affected (0.013 sec)

MariaDB [mini_bioskop]> COMMIT;
Query OK, 0 rows affected (0.003 sec)

MariaDB [mini_bioskop]> SELECT * FROM transaksi WHERE id_transaksi = 'T501';
+--------------+---------+---------------+-------------+
| id_transaksi | id_user | id_pembayaran | total_harga |
+--------------+---------+---------------+-------------+
| T501         | U102    | P103          |       45000 |
+--------------+---------+---------------+-------------+
1 row in set (0.001 sec)

MariaDB [mini_bioskop]> SELECT * FROM tiket WHERE id_tiket = 'TK501';
+----------+-----------+--------------+----------+
| id_tiket | id_jadwal | id_transaksi | no_kursi |
+----------+-----------+--------------+----------+
| TK501    | J102      | T501         | B2       |
+----------+-----------+--------------+----------+
1 row in set (0.001 sec)
```

Simulasi HAK Akses

Admin

```
MariaDB [mini_bioskop]> CREATE USER 'admin_bioskop'@'localhost' IDEN
TIFIED BY 'adminpass';
Query OK, 0 rows affected (0.023 sec)

MariaDB [mini_bioskop]> GRANT ALL PRIVILEGES ON mini_bioskop.* TO 'a
dmin_bioskop'@'localhost';
Query OK, 0 rows affected (0.003 sec)
```

kasir

```
MariaDB [mini_bioskop]> CREATE USER 'kasir'@'localhost' IDENTIFIED BY 'kasirpass';
Query OK, 0 rows affected (0.002 sec)

MariaDB [mini_bioskop]> GRANT INSERT, SELECT, UPDATE ON mini_bioskop.tiket TO 'kasir'@'localhost';
Query OK, 0 rows affected (0.004 sec)

MariaDB [mini_bioskop]> GRANT INSERT, SELECT, UPDATE ON mini_bioskop.transaksi TO 'kasir'@'localhost';
Query OK, 0 rows affected (0.001 sec)

MariaDB [mini_bioskop]> GRANT SELECT ON mini_bioskop.jadwal_tayang TO 'kasir'@'localhost';
Query OK, 0 rows affected (0.005 sec)
```

Viewer

```
MariaDB [mini_bioskop]> CREATE USER 'viewer'@'localhost' IDENTIFIED BY 'viewerpass';
Query OK, 0 rows affected (0.002 sec)

MariaDB [mini_bioskop]> GRANT SELECT ON mini_bioskop.* TO 'viewer'@'localhost';
Query OK, 0 rows affected (0.003 sec)
```

TERIMAKASIH

By. Andini

24120510003