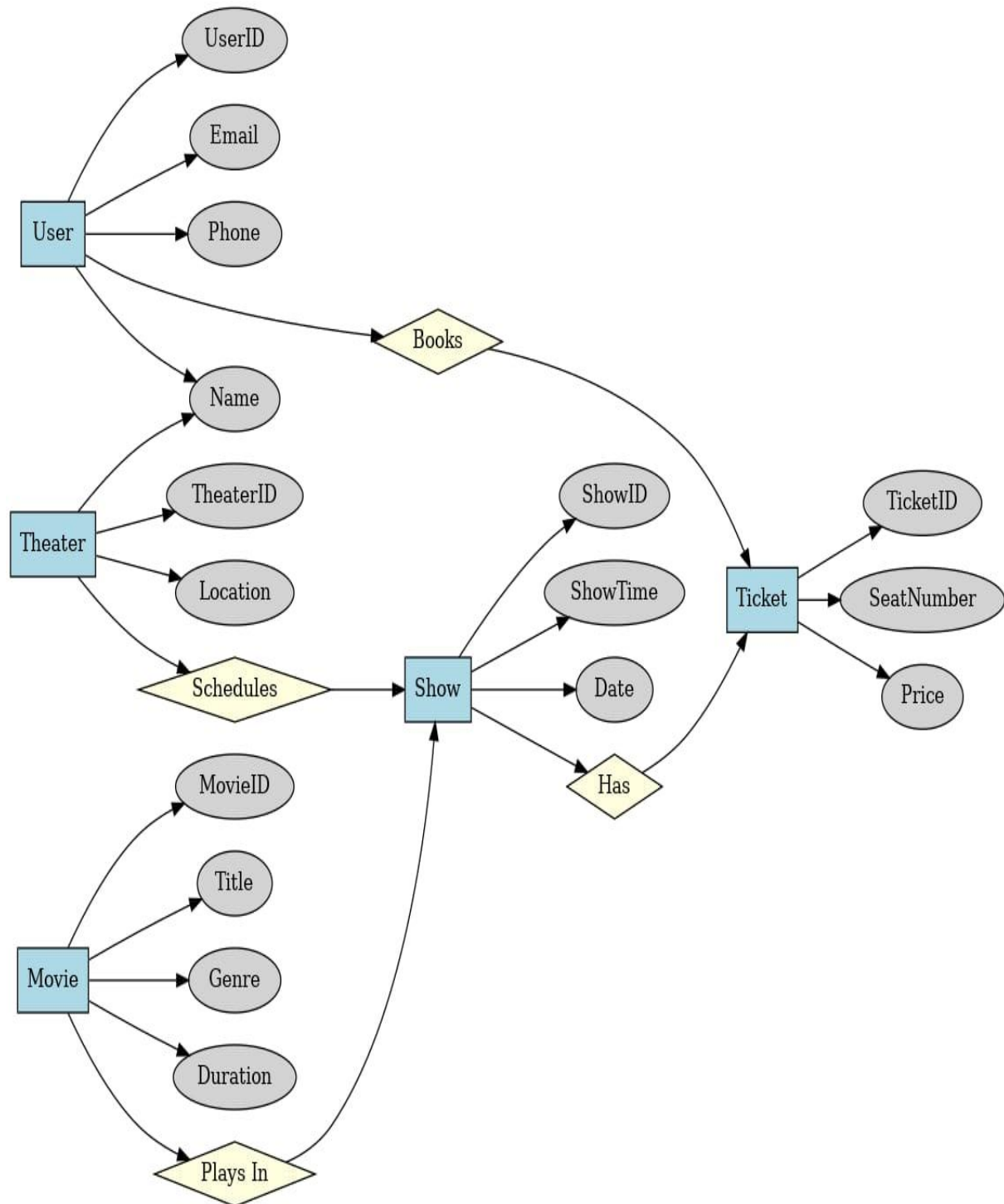
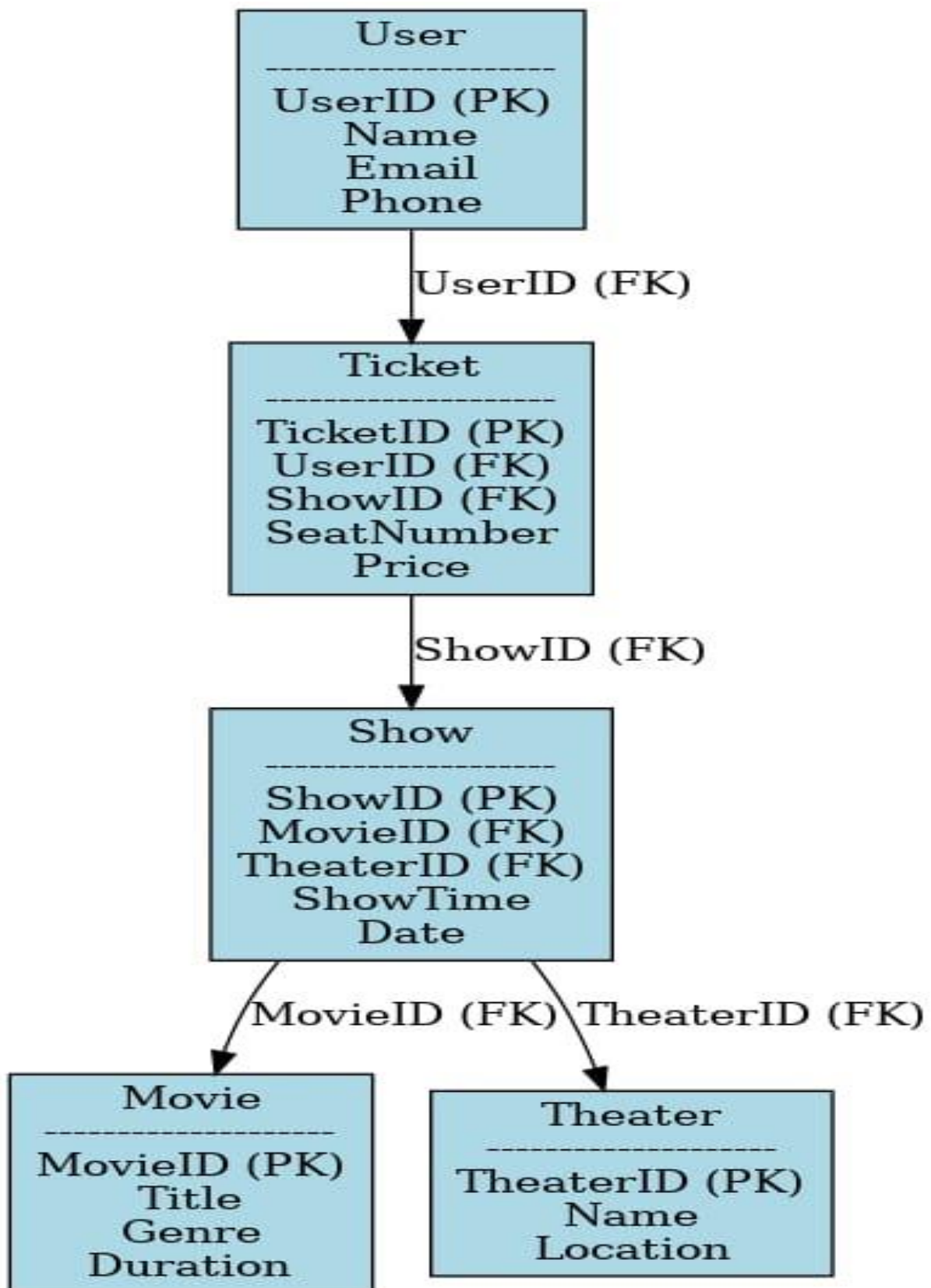


ER DIAGRAM FOR MOVIE TICKET BOOKING



RELATIONAL MODEL DIAGRAM



QUERIES USED IN TABLE :

```
queries.sql 43abfh86j

1 CREATE TABLE Users (
2     UserID INT PRIMARY KEY,
3     Name VARCHAR(100) NOT NULL,
4     Email VARCHAR(100) UNIQUE NOT NULL,
5     Phone VARCHAR(15) UNIQUE NOT NULL
6 );
7
8 CREATE TABLE Movies (
9     MovieID INT PRIMARY KEY,
10    Title VARCHAR(255) NOT NULL,
11    Genre VARCHAR(50),
12    Duration INT CHECK (Duration > 0)
13 );
14
15 CREATE TABLE Theaters (
16     TheaterID INT PRIMARY KEY,
17     Name VARCHAR(100) NOT NULL,
18     Location VARCHAR(255) NOT NULL
19 );
20
21 CREATE TABLE Shows (
22     ShowID INT PRIMARY KEY,
23     MovieID INT NOT NULL,
24     TheaterID INT NOT NULL,
25     ShowTime DATETIME NOT NULL,
26     FOREIGN KEY (MovieID) REFERENCES Movies(MovieID),
27     FOREIGN KEY (TheaterID) REFERENCES Theaters(TheaterID)
28 );
29
30 CREATE TABLE Tickets (
31     TicketID INT PRIMARY KEY,
32     UserID INT NOT NULL,
33     ShowID INT NOT NULL,
34     SeatNumber VARCHAR(10) NOT NULL,
35     Price DECIMAL(10,2) CHECK (Price > 0),
36     FOREIGN KEY (UserID) REFERENCES Users(UserID),
37     FOREIGN KEY (ShowID) REFERENCES Shows(ShowID)
38 );
39
40 INSERT INTO Users (UserID, Name, Email, Phone) VALUES
```

```
26 FOREIGN KEY (MovieID) REFERENCES Movies(MovieID),
27 FOREIGN KEY (TheaterID) REFERENCES Theaters(TheaterID)
28 );
29
30 CREATE TABLE Tickets (
31     TicketID INT PRIMARY KEY,
32     UserID INT NOT NULL,
33     ShowID INT NOT NULL,
34     SeatNumber VARCHAR(10) NOT NULL,
35     Price DECIMAL(10,2) CHECK (Price > 0),
36     FOREIGN KEY (UserID) REFERENCES Users(UserID),
37     FOREIGN KEY (ShowID) REFERENCES Shows(ShowID)
38 );
39
40 INSERT INTO Users (UserID, Name, Email, Phone) VALUES
41 (1, 'Khushi', 'khushi@email.com', '9876543210'),
42 (2, 'Amit', 'amit@email.com', '9876543211');
43
44 INSERT INTO Movies (MovieID, Title, Genre, Duration) VALUES
45 (1, 'Inception', 'Sci-Fi', 148),
46 (2, 'Titanic', 'Romance', 195);
47
48 INSERT INTO Theaters (TheaterID, Name, Location) VALUES
49 (1, 'PVR Cinema', 'Kharar'),
50 (2, 'INOX', 'Chandigarh');
51
52 INSERT INTO Shows (ShowID, MovieID, TheaterID, ShowTime) VALUES
53 (1, 1, 1, '2025-03-01 18:30:00'),
54 (2, 2, 2, '2025-03-02 20:00:00');
55
56 INSERT INTO Tickets (TicketID, UserID, ShowID, SeatNumber, Price) VALUES
57 (1, 1, 1, 'A10', 250.00),
58 (2, 2, 2, 'B15', 300.00);
```

a) Retrieve all users who have booked tickets

sql

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```
SELECT U.UserID, U.Name, U.Email, T.TicketID, S.ShowID, M.Title, T.SeatNumber
FROM Users U
JOIN Tickets T ON U.UserID = T.UserID
JOIN Shows S ON T.ShowID = S.ShowID
JOIN Movies M ON S.MovieID = M.MovieID;
```

Output

UserID	Name	Email	TicketID	ShowID	Title	SeatNumber
1	Khushi	khushi@email.com	1	1	Inception	A10
2	Amit	amit@email.com	2	2	Titanic	B15

b) Show all movies playing in "PVR Cinema"

sql



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```
SELECT M.Title, S.ShowTime, S.ShowID, T.Name AS Theater
FROM Movies M
JOIN Shows S ON M.MovieID = S.MovieID
JOIN Theaters T ON S.TheaterID = T.TheaterID
WHERE T.Name = 'PVR Cinema';
```

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Output

Title	ShowTime	ShowID	Theater
Inception	2025-03-01 18:30:00	1	PVR Cinema

c) Total revenue generated by each movie

sql

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```
SELECT M.Title, SUM(T.Price) AS TotalRevenue
FROM Tickets T
JOIN Shows S ON T.ShowID = S.ShowID
```



```
JOIN Movies M ON S.MovieID = M.MovieID
GROUP BY M.Title;
```

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Output

Title	TotalRevenue
Inception	250.00
Titanic	300.00

d) Most booked show

```
sql

SELECT S.ShowID, M.Title, COUNT(T.TicketID) AS TotalBookings
FROM Tickets T
JOIN Shows S ON T.ShowID = S.ShowID
JOIN Movies M ON S.MovieID = M.MovieID
GROUP BY S.ShowID, M.Title
```

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```
ORDER BY TotalBookings DESC
LIMIT 1;
```

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Output

ShowID	Title	TotalBookings
1	Inception	1

e) Movies longer than 2 hours

```
sql

SELECT Title, Duration FROM Movies WHERE Duration > 120;
```

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Output

Title	Duration
Inception	↓,48

e) Movies longer than 2 hours

sql

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```
SELECT Title, Duration FROM Movies WHERE Duration > 120;
```

Output

Title	Duration
Inception	148
Titanic	195