

## Entities and their attributes:

1. Theatre
  - a. TheatreID (P.K.)
  - b. TheatreName
  - c. Address
  - d. Capacity
2. Movie
  - a. MovieID (Primary Key)
  - b. MovieTitle
  - c. Language
  - d. Dimension
3. Show
  - a. ShowID (P.K.)
  - b. MovieID (F.K.)
  - c. TheatreID (F.K.)
  - d. ShowDate
  - e. ShowTime
  - f. Occupancy
  - g. TicketPrice

### P1:

```
CREATE TABLE Theatre (  
    TheatreID INT AUTO_INCREMENT PRIMARY KEY,  
    TheatreName VARCHAR(50) NOT NULL,  
    Address VARCHAR(255) NOT NULL,  
    Capacity INT NOT NULL  
);
```

```
CREATE TABLE Movie (  
    MovieID INT AUTO_INCREMENT PRIMARY KEY,  
    MovieTitle VARCHAR(100) NOT NULL,  
    Language VARCHAR(20) NOT NULL,  
    Dimension VARCHAR(5) NOT NULL  
);
```

```
CREATE TABLE Show (  
    ShowID INT AUTO_INCREMENT PRIMARY KEY,  
    MovieID INT NOT NULL,  
    TheatreID INT NOT NULL,  
    ShowDate DATE NOT NULL,  
    ShowTime TIME NOT NULL,  
    Occupancy INT NOT NULL,
```

```
TicketPrice DOUBLE NOT NULL,  
FOREIGN KEY (MovieID) REFERENCES Movie(MovieID),  
FOREIGN KEY (TheatreID) REFERENCES Theatre(TheatreID)  
);
```

```
INSERT INTO Theatre (TheatreID, TheatreName, Address, Capacity) VALUES (1, 'PVR:  
NEXUS', 'DLF Saket, New Delhi', 500), (2, 'IMAX', 'Ambience, Gurugram', 530);
```

```
INSERT INTO Movie (MovieID, MovieTitle, Language, Dimension)  
VALUES (1, 'Dasara(UA)', 'Telugu', '2D'), (2, 'Kisi Ka Bhai Kisi Ki Jaan(UA)', 'Hindi', '2D'),  
(3, 'Tu Jhoothi Main Makkar(UA)', 'Hindi', '2D'), (4, 'Avatar: The Way of Water(UA)', 'English',  
'3D');
```

```
INSERT INTO Show (ShowID, MovieID, TheatreID, ShowDate, ShowTime, Occupancy,  
TicketPrice)  
VALUES (1, 1, 1, '2023-04-25', '12:15:00', 500, 500.00), (2, 2, 1, '2023-04-25', '13:00:00', 500,  
500.00),  
(3, 2, 1, '2023-04-25', '16:10:00', 25, 750.00), (4, 2, 1, '2023-04-25', '18:20:00', 15, 750.00),  
(5, 2, 1, '2023-04-25', '19:20:00', 106, 500.00), (6, 2, 1, '2023-04-25', '22:30:00', 75, 500.00),  
(7, 3, 1, '2023-04-25', '13:15:00', 87, 500.00), (8, 4, 1, '2023-04-25', '13:20:00', 143, 950.00);
```

**P2:**

```
SELECT Movie.MovieTitle, Movie.Language, Movie.Dimension, Show.ShowTime,  
Show.TicketPrice, Show.Occupancy  
FROM Show  
INNER JOIN Movie ON Show.MovieID = Movie.MovieID  
WHERE Show.ShowDate = '2023-04-25' AND Show.TheatreID = 1;
```