# Design a database for online movie booking system

## Functional Requirements:

1. The system should be able to list down cities where its cinemas are located.
2. A cinema can have multiple halls.
3. Each hall has its own schedule.
   1. For simplicity consider each hall has two shows per day, each show has a 4 hour slot and duration for all movies are considered to be less than 4 hours.
   2. A hall can have holidays.
4. A user can book tickets for a scheduled movie.
   1. For simplicity’s sake, no need to consider the seating arrangements.
   2. Each booking should be considered as purchase
5. A user is a resident of a city, so there must be a relation to that user to the city.

# Task

1. Create necessary table schema with proper constraints to design the system.
2. Create insert scripts to test the design.

# Queries

1. Write a query to find all distinct movies released per cinema.
2. Write a query to find the number of movies released this year/this month per cinema.
3. Write a query to find those schedules for all halls which did not show any movies.
   1. Let’s assume there are schedules like that, so insert the data as such.

# Functions

1. Write a scalar valued function which returns the weekend id for a hall.
   1. The id of days are following: Sunday: 1, Monday: 2 etc.
   2. There should be only one weekend
   3. Input parameter for the function is hall id

# Stored Procedures

1. Write a stored procedure to book ticket for a user.
   1. Input parameters: User id, Number of Tickets, Movie Schedule ID
   2. SP should output the total ticket price if successful
   3. SP should output -1 if hall capacity exceeds
   4. SP should output -2 if anyone tries to book more than 4 tickets