

## Step 1 : GATHERING ALL REQUIREMENTS

### BASIC REQUIREMENTS :

- Application must show all the list of current movies and shows.
- Users should be able to search for movies.
- App must show list of all Theaters for a selected movie.
- App must allow user to book ticket for a show.
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- App must allow Theaters to add/edit shows.

### Questions for interviewer :

- Does the app supports multi-screen theaters too ? or only single screen theaters ?
- Does the app will support multi-languages movies or not ?
- Auto-matic seat selection ? or manual seat selection ?
- Does the app accept online payments ?

### ASSUMPTIONS :

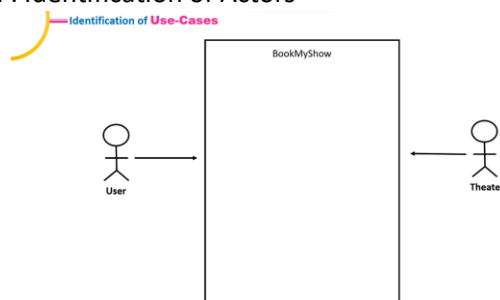
- App shows only single screen theatre.
- Every Theater has capacity on (no of seats) available.
- Registered Users will be allowed to :
  - ❖ Search for movies &
  - ❖ Book tickets.

(History of Bookings will be stored)

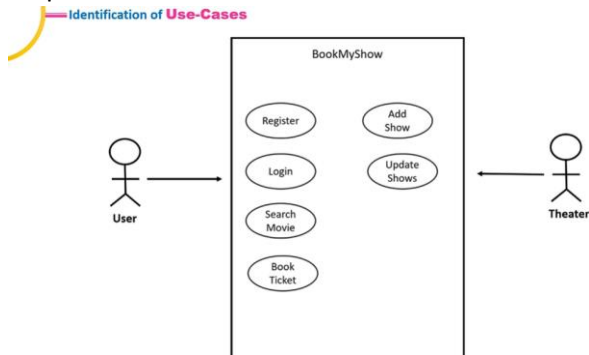
- Guest Users will be allowed to :
  - ❖ Only Searching movies is allowed,
  - ❖ Not allowed to book tickets.
- Movies can have the following :
  - Language – Telugu, English, Kannada
  - Genre – Action, Comedy, Scientific

## Step 2 : CREATE USE-CASE DIAGRAMS

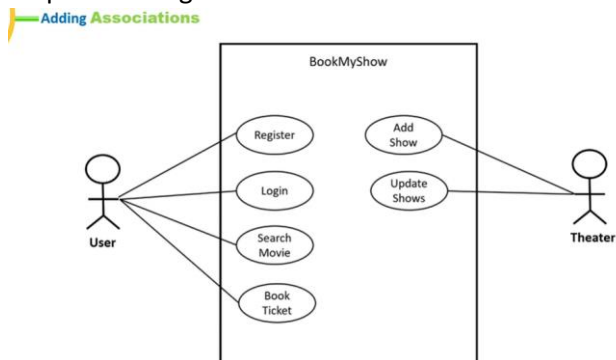
- Step 2a : Identification of Actors



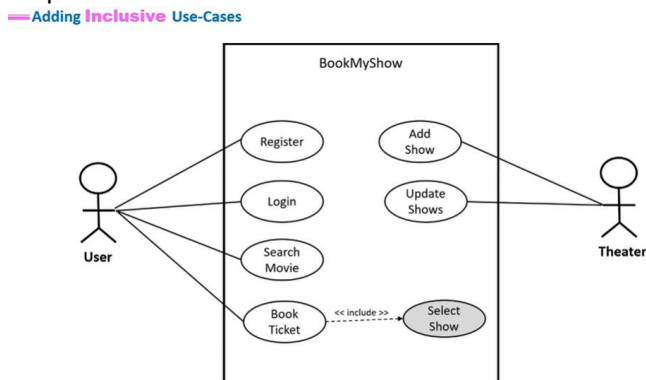
➤ Step 2b : Identification of Use-Cases



➤ Step 2c: Adding Associations

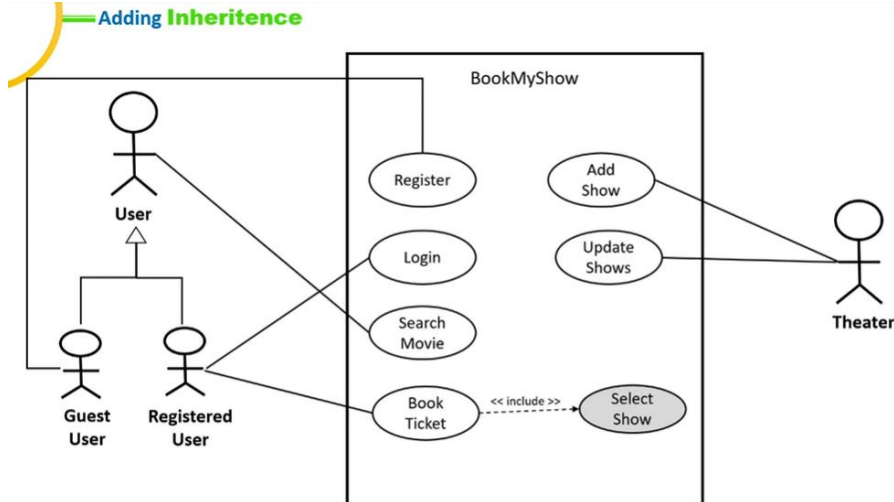


➤ Step 2d: Identification of Inclusive Use-Cases



- Step 2e: Identification of Extension Use-Cases : skipping this , as we are just making an MVP (Minimal Viable Product) which means , we are just trying to satisfy basic basic things , functionalities.

➤ Step 2f: Identification of Inheritance



- 1) we have two types of users Guest and Registered.
- 2) Guest can use search movie feature as well as register too.
- 3) Registered user can use the feature of both search movies as well as book ticket.

### Step 3 : CREATE CLASS DIAGRAMS

This step is very simple,  
just tag all possible nouns from the Step 1 and note down all the list of those nouns

#### Requirements

- App will be listing current movies and the shows.
- App allows user to search for movies.
- App will be listing different shows for a movie.
- App allows registered user to book ticket for a show.
- App allows theater to add/edit a show.



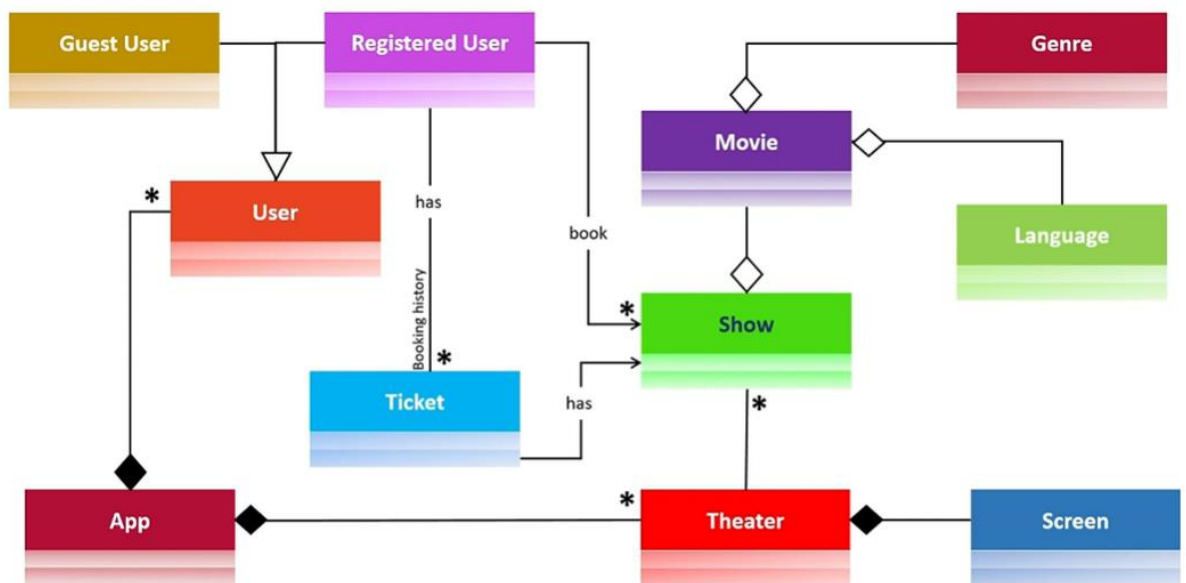
adding more found from suggestions:-

## Assumptions

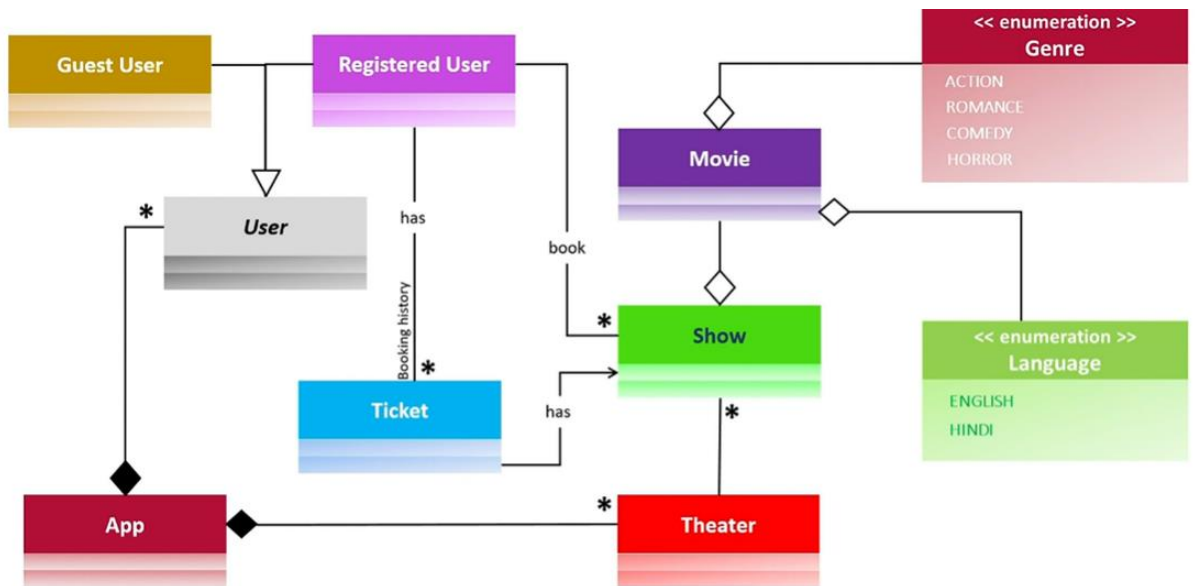
- Every theater has single screen.
- Every theater has some capacity (No. of seats).
- Registered users can book tickets, but Guest users are allowed to search movies.
- Registered users will have the history of their bookings.
- Movies can be in two languages: Hindi and English
- Movies can have any of the four genres: Action, Romance, Comedy and Horror.
- We are not considering Payment module for now.



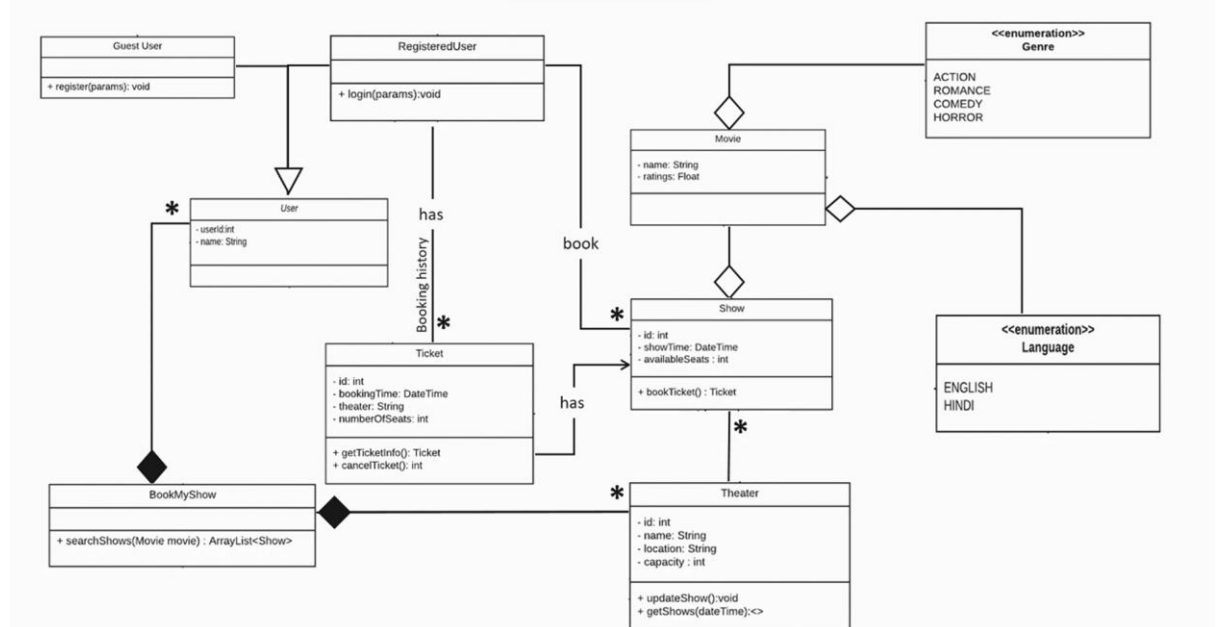
Initial design structure:-



Modified Design :-



Further Modified by adding attributes and functionalities :-



## Step 5 : CREATE SKELETON CODE

Refer the Java projects ... available on git hub **Object-Oriented-Design Repository**