Design BookMyShow.

→ Popular
→ Concurrency
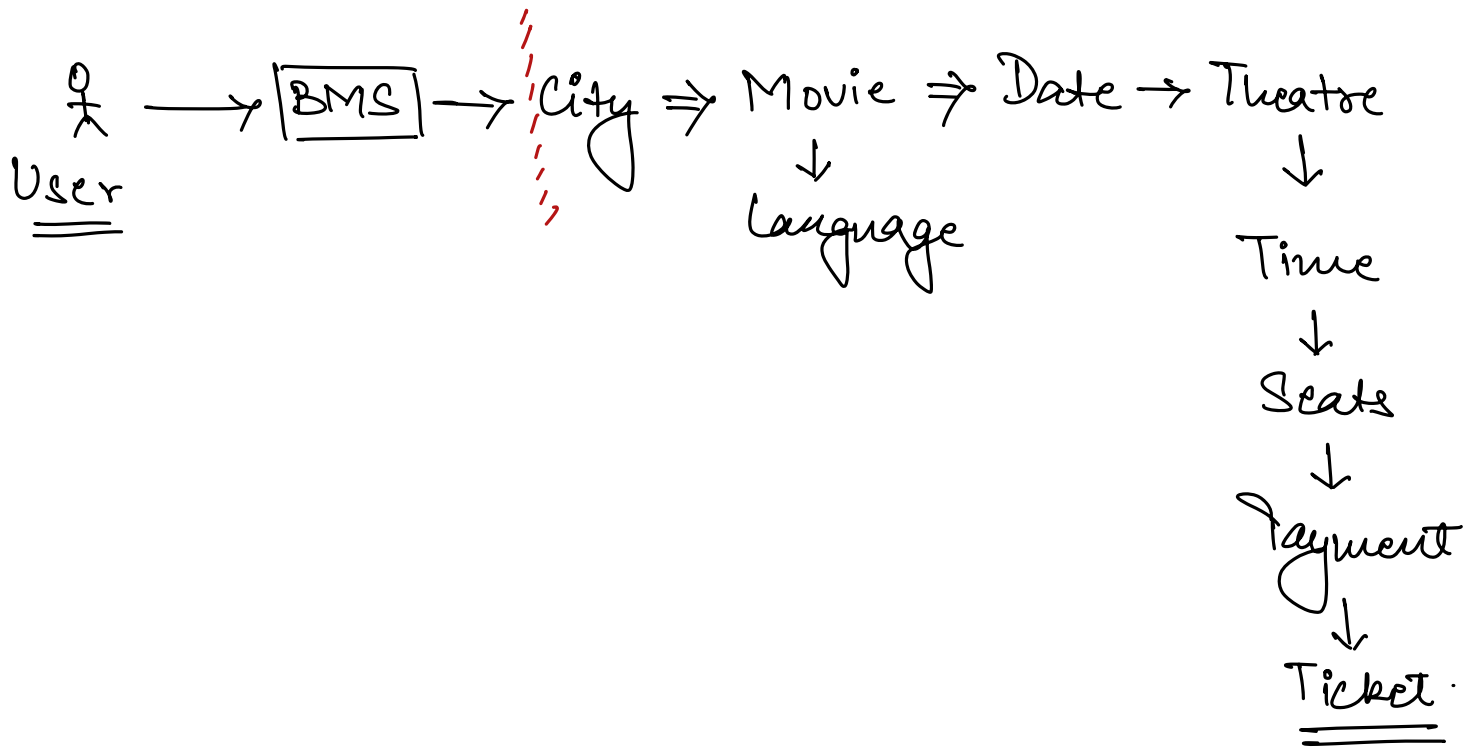(No 2 persons should be able to book the same Seat).

1) Overview

2) Requirements

3) Clarify requirements.

4) Class Diagram

5) Schema Design

6) Code. → SpringBoot.

Overview.

⇒ Design Classes/Entities
⇒ Code the requirements.

Requirements.

User → BMS → City ⇒ Movie ⇒ Date → Theatre
                                ↓   ↓
                            Language   Time
                                             ↓
                                           Seats
                                             ↓
                                          Payment
                                             ↓
                                          Ticket.

1. There will be multiple cities, Each city will have multiple theatres.

2. A theatre can have multiple screens/ auditoriums.

3. Screen will have different features.
   (2D|3D|Imax|Dolby)

4. Each screen will have multiple seats

5. Seats can be of different types.

Scofa — Gold — Silver — Platinum.

(A12) → ~~500 Rs.~~

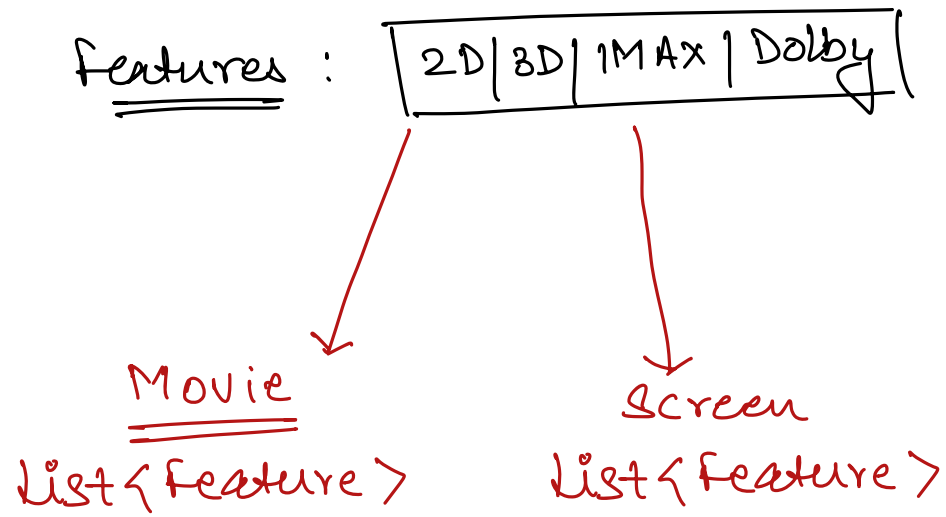A12 → Avengers: 9:00 Am ⇒ 300 ₹

A12 → Avengers: 6:00 PM ⇒ 500 ₹

⇒ Price is a feature of Movie, Time, Seattype, Theatre, Day, Screen.

6) Each type of seat will have a different price for a show.

7) Each theatre will have multiple shows running at one time.

8) Each show will have a Movie running at a time.

9) Movie can have multiple attributes like languages, cast, name, imdb, genre, grade,

features : | 2D | 3D | IMAX | Dolby |

Movie
List⟨Feature⟩

Screen
List⟨Feature⟩

Movie : 3D | IMAX | Dolby
(Avengers)

Screens : 3D | Dolby

Shows : 3D + Dolby ✓

IMAX + Dolby ✗

10) User should be able to search movies.

11) Users won't be able to book tickets 10 mins before the show.

12) After seat selection user will do the Payment.

13) We only support online payments.

14) Payment will be outsourced to some 3rd Party

$\hookrightarrow$ RazorPay / PayU

$\Rightarrow$ ADAPTER

15) Support **Partial** payments.

500 ₹
- 200 AmazonPay / Wallet
- 300 CC | DC | Netbanking.

16) Refund / Cancellation.

17) User can book 10 seats max in one Ticket.

18) Once the payment is successful, Ticket will be generated.

19) Only one person should be able to book a particular seat.

20) Once a user selects a seat, that will be locked for 10 mins.

— ✳ —

Class Diagram.

$\rightarrow$ HW