

Dotnet Assignment

Movie Booking Application

helle

Technologies Required :-

- Web APIs (Backend) – .Net / .Net Core
- UI (Frontend) – Angular
- Database - MSSQL
- Database ORM – Entity Framework / ADO .Net

Total Hours

4 Hours

Problem Statement –

You are expected to create a movie booking application.

It should provide the following services :

1. User should be able to login (**Default admin and customer can be created directly into the database**)
 - Login will work differently for both customer and admin (and both will be allowed different api to access) add default admin and customer username and password.
2. Movie theatre can have minimum of 3 screen
3. Admin should be able to add and Get Movie (**Required**).
 - Movie Details
 - Movie_Id
 - Movie Name
 - Genre
 - Director
 - Description
 - Shows
 - Show_Id
 - Start Date
 - End Date
 - Timings
 - No_of_seats
 - Price
 - Screen_Number
 - Movie_Id
4. When admin adds a movie a check should be there that no movie is playing at same screen, timing and date (**Bonus**)
5. Customer should be able to book a movie ticket
 - While booking a movie user should be able to use see the following things –
 - All the movie available for a particular day and their different shows which are available.
 - No of seats available

- Once the customer has selected a movie, show-timing, no of seats a confirmation message should be shown to the customer showing the movie name, show timing, and screen number (Note: Seat location is not required)
6. Get All booked tickets (**Bonus**)
 7. Tickets should have all the available info related to the show that user has selected.

User Flow

1. Admin Flow
 - a. Admin should be able to add new movies and able to view all current shows on particular day on login
 - b. A add new movie button
 - i. While adding a new movie, admin should fill out basic details of movie and a default section to add show timing (start date, end date, timing, no_of_seats, price, screen_number), if user wants to add another show time a add new button should be available which on click will show another form to add new show time
2. Customer flow
 - a. User should be able to all movies that are currently shown on the selected date (default date: current_date)
 - b. On selection of movie re-direct user to details page where all the available shows for the selected movie and date are currently available.
 - c. On selection of show time a pop up appears and user has to select no of seats (no visual representation of seats is required), after selection of seats total amount should be reflected. **(a user cannot select more than 10 seat at a time/ or more than available number of seats)**

Must Have –

1. All APIs should be working with proper validation
2. Login should be able to accept 2 types of user customer and admin.
3. Customer should be able to see all the movies that are currently available with their relevant information (like show time, no of seats available, movie info etc)
4. Once a show is booked user customer should be shown title of movie, timing, date, no of seats booked and screen number should be shown in confirmation box.

Good to have (Bonus)–

1. When admin adds a movie a check should be there that no movie is playing at same screen, timing and date.
2. Get All booked tickets for a customer

Guidelines –

1. SQL Management studio or any other Database like Mongo DB can also be used but the database should be shared along with assignment submission.
2. Angular should be used for frontend technology.

3. All the assumptions and admin and customer details should be mentioned with the assignment.
4. **Default admin and customer credentials can be used for the application and shared with documentation.**
5. Mention relevant assumptions taken while implementing application.
6. Standard coding guideline should be strictly followed.
7. N-layer structure should be followed.
8. Proper form validation should be added.
9. Routes should have proper authorization.
10. Exception handling should be done.

Outcomes –

1. Once your application is build any person who is not a admin should be able to view all the movies showing in a theatre and should be able to select a movie select it show time and no of seats he wants.
2. Once user as selected all the above-mentioned things, a ticket Id should be generated for him/her and shown via notification.

Deliverables\Expectations

- Web Application (UI) developed using Angular.
- Restful Web APIs developed using .Net.
- Database Backup File (.bak).
- Readme file to setup the application.

Evaluation Criteria

- Functional and Non-Functional requirements completion.
- Bonus Functionality.
- Clean coding practices and standard coding guidelines.
- Overall Application structure and DB Design.