MyMoviePlan

DESCRIPTION

Create a dynamic and responsive web application for booking movie tickets online for different genres and languages.

Background of the problem statement:
NMS Cinemas is a chain of single screen theatres that screen movie shows of different genres and languages at very genuine prices. It was established in 2004 in Pune, India. Recently, the business analysts noticed a decline in sales since 2010. They found out that the online booking of movie tickets from apps, such as BookMyShow and Paytm were gaining more profit by eliminating middlemen from the equation. As a result, the team decided to hire a Full Stack developer to develop an online movie ticket booking web application with a rich and user-friendly interface.
You are hired as the Full Stack Java developer and are asked to develop the web application. The management team has provided you with the requirements and their business model so that you can easily arrange different components of the application.

Features of the application:

1. Registration
2. Login
3. Payment gateway
4. Searching
5. Filtering
6. Sorting
7. Dynamic data
8. Responsive and compatible with different devices

Recommended technologies:

1. Database management: MySQL and Oracle
2. Backend logic: Java programming, NodeJS
3. Frontend development: JSP, Angular, Bootstrap, HTML/CSS, and Javascript
4. Automation and testing technologies: Selenium, Jasmine, and TestNG
5. DevOps and production technologies: Git, GitHub, Jenkins, Docker, Kubernetes, and AWS

Project development guidelines:

☐ The project will be delivered within four sprints with every sprint delivering a minimal viable product.
☐ It is mandatory to perform proper sprint planning with user stories to develop all the components of the project.
☐ The learner can use any technology from the above-mentioned technologies for different layers of the project.
☐ The web application should be responsive and should fetch or send data dynamically without hardcoded values.
☐ The learner must maintain the version of the application over GitHub and every new change should be sent to the repository.
☐ The learner must implement a CI/CD pipeline using Jenkins.
☐ The learner should also deploy and host the application on an AWS EC2 instance.
☐ The learner should also implement automation testing before the application enters the CI/CD pipeline.
☐ The learner should use Git branching to do basic automation testing of the application in it separately.
☐ The learner should make a rich frontend of the application, which is user- friendly and easy for the user to navigate through the application.
☐ There will be two portals in the application, namely admin and user portal.

Admin Portal:

It deals with all the backend data generation and product information. The admin user should be able to:

- ☐ Add or remove different genres to or from the application to build a rich product line
- ☐ Edit movie details like name, ticket price, language, description, and show timings to keep it aligned to the current prices
- ☐ Enable or disable the movie shows from the application

User Portal:

It deals with the user activities. The end-user should be able to:

- ☐ Sign-in to the application to maintain a record of activities
- ☐ Search for movie tickets based on the search keyword
- ☐ Apply filters and sort results based on different genres
- ☐ Add all the selected movie tickets to a cart and customize the purchase at the end
- ☐ Experience a seamless payment process
- ☐ Receive a booking summary page once the payment is complete