Specification Document: Medicare Project

Project Overview

Project Name: Medicare - E-Healthcare Web Application

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GitHub Repository: https://github.com/Ntwano14/Medicare_FullStackApplication_Repo.git

Project Description

The Medicare project aims to develop a dynamic and responsive Java-based e-healthcare web application for ordering medicines across different categories. The web application will provide a user-friendly interface for both administrators and end-users, facilitating the efficient ordering of medicines and healthcare essentials.

Background

Medicare, established in 2012 in Delhi, India, has experienced a decline in sales since 2017. Recognizing the trend of online medicine ordering, the management has decided to embrace technology and eliminate middlemen by developing a user-friendly web application. As the Full Stack Java developer, you are entrusted with creating a robust solution to enhance the company's competitiveness in the market.

Project Features

The application will include the following features:

Registration: Users can create accounts to manage their activities.

Login: Secure login functionality for both administrators and end-users.

Payment Gateway: Integration with a secure payment gateway for seamless transactions.

Searching: Users can search for medicines based on keywords.

Filtering: Apply filters to refine search results based on different criteria.

Sorting: Sort products based on various parameters for user convenience.

Dynamic Data: Real-time updating of data without hardcoded values.

Responsive Design: Ensure compatibility with different devices and a responsive web design.

Technologies

Database Management: MySQL

Backend Logic: Java programming, NodeJS

Frontend Development: JSP, Angular, Bootstrap, HTML/CSS, JavaScript

Automation and Testing Technologies: Selenium, TestNG

DevOps and Production Technologies: Git, GitHub, Jenkins, Docker, AWS

Project Development Guidelines

Sprint 1*: Project Setup*

Duration: 1 day

Focus:

Project initialization and setup.

Implement basic project structure.

Set up version control with Git and GitHub.

Implement user authentication system.

Basic UI for user registration and login.

User Stories:

As a user, I want to be able to register on the platform.

As a user, I want to log in to the application securely.

As an admin, I want to have control over user accounts.

Sprint 2*: Medicine Management and Search Functionality*

Duration: 1 day

Focus:

Implement backend logic for medicine management.

Create admin portal for managing medicine details.

Implement search functionality for users.

Integrate dynamic data fetching.

User Stories:

As an admin, I want to add new medicine details to the application.

As an admin, I want to edit existing medicine details.

As an admin, I want to enable or disable a medicine product.

As a user, I want to search for medicines based on keywords.

Sprint 3*: User Portal and Cart Management*

Duration: 1 day

Focus:

Develop the user portal for end-users.

Allow users to view and interact with the product catalog.

Implement cart functionality for adding and customizing purchases.

Start implementing payment gateway integration.

User Stories:

As a user, I want to browse and filter medicines.

As a user, I want to add selected items to the cart.

As a user, I want to customize my purchase within the cart.

Sprint 4*: Payment Integration and Refinements*

Duration: 2 weeks

Focus:

Complete the payment gateway integration.

Implement order summary details page.

Perform testing and refinement of the application.

Prepare for deployment with CI/CD pipeline.

User Stories:

As a user, I want to perform a seamless payment transaction.

As a user, I want to receive an order summary after completing the payment.

As a developer, I want to ensure the application is thoroughly tested.

As a developer, I want to set up a CI/CD pipeline for automated deployments.

Rich Frontend:

Develop a rich, user-friendly frontend for seamless user navigation.

Admin Portal

Functionality

Add or remove medicine details to build a rich product line.

Edit medicine details (name, price, seller, product description, offers).

Enable or disable a medicine product.

User Portal

Functionality

Sign in to maintain a record of activities.

Search for products based on keywords.

Apply filters and sort results for a better user experience.

Add selected items to the cart and customize the purchase.

Perform a seamless payment gateway transaction.

Receive an order summary details page after completing the payment.

Conclusion

This specification document outlines the key components and requirements for the Medicare project. It serves as a comprehensive guide for the development team to create a successful, user-friendly, and competitive e-healthcare web application.