Report On

Capstone Project

Medi-Care

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The Medicare company is an established healthcare provider that supplies medicines and healthcare essentials. The company noticed a decline in sales since 2017 due to the growing trend of online ordering of medicines from companies such as 100mg and mfine. To counter this trend, the company hired a Full Stack Java developer to develop a responsive and dynamic e-healthcare web application with a rich and user-friendly interface. The application has two portals, the admin portal, and the user portal. The admin portal deals with backend data generation and product information while the user portal deals with user activities. The project was developed using Spring Boot for the backend and ReactJS for the frontend.

Introduction:

The purpose of this report is to provide a detailed analysis of the Java e-healthcare web application developed for the Medicare company. The report covers the features of the application, recommended technologies, project development guidelines, and a detailed description of the admin portal and the user portal.

Features of the Application:

The e-healthcare web application developed for Medicare has the following features:

1. Registration: Users can register on the application to maintain a record of activities.
2. Login: Registered users can log in to the application to access their profile and perform various activities.

3. Payment gateway: The application has a seamless payment gateway for the purchase of medicines.
4. Filtering: Users can apply filters to search results based on different categories to get the best deals.
5. Sorting: Users can sort search results based on different categories to get the best deals.
6. Dynamic data: The application fetches or sends data dynamically without hardcoded values.
7. Responsive and compatible with different devices: The application is responsive and compatible with different devices, including mobile, tablet, and desktop.

Recommended Technologies:

The following technologies were used in the development of the e-healthcare web application:

1. Database management: MySQL
2. Backend logic: Java programming, NodeJS
3. Frontend development: React JS
4. Automation and testing technologies: Selenium

Project Development Guidelines:

The project was developed following the below guidelines:

1. The project was delivered within four sprints with every sprint delivering a minimal viable product.
2. Proper sprint planning was performed with user stories to develop all the components of the project.
3. The developer used any technology from the recommended technologies for different layers of the project.
4. The web application is responsive and fetches or sends data dynamically without hardcoded values.
5. The developer maintained the version of the application over GitHub, and every new change was sent to the repository.

6. A CI/CD pipeline was implemented using Jenkins.
7. Automation testing was implemented before the application entered the CI/CD pipeline.
8. Git branching was used to do basic automation testing of the application separately.
9. A rich frontend of the application was developed, which is user-friendly and easy for the user to navigate through the application.
10. There were two portals in the application, namely admin and user portal.

Admin Portal:

The admin portal deals with all the backend data generation and product information. The admin user can perform the following activities:

1. Add or remove medicine details from the application to build a rich product line: The admin user can add or remove medicine details from the application to build a rich product line.
2. Edit medicine details: The admin user can edit medicine details like name, price, seller, product description, and offers to keep the product information updated with the current prices.
3. Enable or disable a medicine product: The admin user can enable or disable a medicine product based on the availability of the product.
4. The admin portal will have a login page where the admin user can enter their credentials to access the portal. Once logged in, the admin user will be able to see the dashboard with options to add or remove medicine details, edit medicine details, and enable or disable a medicine product.
5. Adding a medicine product: The admin user can add a new medicine product by filling out a form with details such as name, price, seller, product description, and offers. The form should have proper validation to ensure that all the required fields are filled in and the data entered is in the correct format.
6. Removing a medicine product: The admin user can remove a medicine product by selecting the product from a list and confirming the removal.
7. Editing a medicine product: The admin user can edit a medicine product by selecting the product from a list and updating the details in the form.

The form should have pre-filled details of the selected product, which can be updated as required.

8. Enabling or disabling a medicine product: The admin user can enable or disable a medicine product by selecting the product from a list and toggling the enable/disable button.

User Portal:

The user portal deals with the user activities. The end-user can perform the following activities:

1. Sign-in and Register to the application: The end-user can sign in as well as register to the application and using their credentials to maintain a record of activities.
2. Apply filters and sort results: The end-user can apply filters and sort results based on different categories such as price, category, brand, etc., to get the best deals.
3. Add products to the cart: The end-user can add all the selected products to the cart and customize the purchase at the end.
4. Performing seamless payment: The end-user can perform seamless payment using a payment gateway. The payment gateway will be integrated with the application to ensure secure and reliable transactions.
5. Getting an order summary details page: Once the payment is complete, the end-user can get an order summary details page with information such as order id, product details, price, and delivery details. The order summary page will have a print option to enable the end-user to take a printout of the order details.

Thank You