

# WEB ENGINEERING

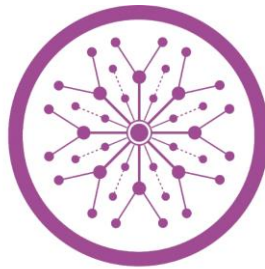
## ShopVista (E-commerce Website)

*"Fashion, Jewellery, and Electronics Marketplace"*

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## **ABSTRACT**

The ShopVista project proposes the development of a student-centric e-commerce website using React.js, featuring real-time product data fetched via API. With a focus on men's and women's clothing, jewelry, and electronics, the website aims to provide a seamless shopping experience. Utilizing Redux for state management and Agile methodology for development, the project outlines objectives such as responsive design, user authentication, and an efficient checkout process. The web pages will include a user-friendly navbar with options for home, products, about, contact, login/register, and cart. The non-functional requirements emphasize performance, security, and scalability, while the project milestones span UI design, API integration, authentication, shopping cart implementation, testing, and deployment. Ultimately, ShopVista represents a comprehensive exploration of React.js skills and an opportunity for a well-rounded portfolio showcase.

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## INTRODUCTION

Welcome to the proposal for the development of ShopVista, an e-commerce website built using React.js. This project aims to provide an engaging and user-friendly online shopping experience for customers looking to purchase a variety of products, including clothes, jewelry, and electronics. As a student, this project will showcase your skills in web development, particularly in React.js, Redux, and API integration.

## SCOPE OF PROJECT

The scope of the ShopVista project includes the development of a fully functional e-commerce website with essential features such as product listing, user authentication, shopping cart, and a seamless checkout process. The website will be designed to cater to the sale of products in categories like men's and women's clothing, jewelry, and electronics. API integration will be employed to fetch real-time product data.

## OBJECTIVES

**Implement Responsive Design:** Ensure that the website is accessible and user-friendly across various devices, including desktops, tablets, and smartphones.

**Integrate API for Product Data:** Fetch product information dynamically from an API to keep the website's product listings updated in real-time.

**Implement Redux for State Management:** Use Redux to manage the state of the application efficiently, particularly for features such as the shopping cart.

**User Authentication:** Provide a secure and straightforward user authentication system, allowing users to register, log in, and manage their accounts.

**Navigation and User Interface:** Develop a clear and intuitive navigation system with a user-friendly interface to enhance the overall user experience.

**Shopping Cart and Checkout:** Implement a functional shopping cart that allows users to add/remove items and proceed through a secure checkout process.

## DEVELOPMENT APPROACH

The development approach for ShopVista will follow an Agile methodology, allowing for incremental progress and flexibility in adapting to changing requirements. Regular sprints will be conducted, focusing on different aspects of the project, such as UI/UX design, API integration, state management, and testing.

## PROJECT DESCRIPTION

ShopVista is an e-commerce website designed to provide a seamless online shopping experience. It will feature a well-organized product catalog with categories for men's and women's clothing, jewelry, and electronics. Users will have the option to browse products, add them to their cart, and proceed to a secure checkout process.

## **WEB PAGE DETAILS**

Navbar

Home

Products (with subcategories for each product type)

About

Contact

Login/Register

Cart

## **SYSTEM REQUIREMENTS**

### **Frontend:**

React.js for the user interface

Redux for state management

Responsive design for various devices

### **Backend:**

API for fetching product data

## **ONLINE SHOPPING**

Implement a robust online shopping system that includes:

Product listings with details

User authentication for personalized experiences

Shopping cart functionality

Secure checkout process

## **NON-FUNCTIONAL/OPERATIONAL REQUIREMENTS**

**Performance:** Ensure the website's performance is optimized for quick loading and responsiveness.

**Security:** Implement secure authentication and encryption for user data and transactions.

**Scalability:** Design the application to handle potential future growth in terms of users and products.

## **MILESTONES**

### **Week 1: Project Setup and UI Design**

Set up the React.js project

Design the user interface and create static components

### **Week 2-3: API Integration and Product Listing**

Integrate the API for fetching real-time product data

Implement product listing and details pages

### **Week 4: Redux Implementation**

Implement Redux for state management, focusing on the shopping cart

### **Week 5: Shopping Cart**

Develop the shopping cart functionality

### **Week 6-7: Testing and Deployment**

Conduct thorough testing of the entire application

Deploy the ShopVista website

### **CONCLUSION**

In conclusion, the ShopVista project is an exciting opportunity for you to showcase your skills in web development. By following the proposed plan, you will create a feature-rich e-commerce website that provides a seamless and secure shopping experience for users. This project will not only enhance your understanding of React.js and related technologies but also serve as a valuable addition to your portfolio. Good luck with your ShopVista development!