University Of Punjab

Gujranwala Campus



Web Engineering Final Project

Submitted to

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Website Proposal: E-Commerce Platform

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# **Project Supervisor:**

**Ms. Ayesha Nazeer**

## **Project Members:**

## **Members** **Roll Number**

* Mirza Shazil Arsal BSE-21016(M)
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# **Overview:**

Our e-commerce platform aims to provide users with a seamless shopping experience, offering a wide range of products in various categories. Customers can browse, search, and purchase products easily, while sellers can manage their inventory and process orders efficiently. The website will prioritize user-friendliness, security, and reliability to ensure customer satisfaction and promote business growth.

# **Goal:**

The goal is to create a robust e-commerce platform that facilitates transactions between buyers and sellers, providing a secure and enjoyable shopping experience for all users.

# **Objectives:**

1. Develop an intuitive user interface for browsing products, adding items to cart, and completing purchases.
2. Implement secure payment processing and data encryption to safeguard sensitive information.
3. Provide sellers with tools for managing inventory, updating product listings, and tracking orders.
4. Optimize the website for search engines to attract organic traffic and improve visibility.
5. Offer responsive customer support to address inquiries, resolve issues, and enhance user satisfaction.

# **Project Success Criteria:**

1. Conversion Rate: Measure the percentage of website visitors who make a purchase, aiming for continuous improvement over time.
2. Customer Satisfaction Ratings: Gather feedback from users to evaluate satisfaction levels and identify areas for improvement.
3. Sales Performance: Track sales revenue, average order value, and other key metrics to monitor business growth.
4. Website Uptime: Ensure high availability of the website by minimizing downtime and addressing technical issues promptly.
5. Return on Investment (ROI): Assess the financial returns generated by the platform compared to the resources invested in its development and maintenance.

# **Risks:**

1. Technical Challenges: Potential issues such as server crashes, software bugs, or integration errors may impact website functionality and user experience.
2. Security Vulnerabilities: Protecting user data and preventing unauthorized access or data breaches is crucial to maintaining trust and compliance with regulations.
3. Competitor Pressure: Competing with established e-commerce platforms may pose challenges in attracting and retaining customers, requiring differentiation strategies and unique value propositions.

# **Website Details:**

Homepage:

* Showcase featured products, promotions, and new arrivals to grab users' attention.
* Include a navigation menu, search bar, and call-to-action buttons for easy access to key sections.
* Highlight customer reviews, testimonials, and trust signals to build credibility.

# **Product Listings:**

* Organize products into categories and subcategories for easy navigation.
* Display product images, descriptions, prices, and availability status prominently.
* Implement filters and sorting options to help users find products based on their preferences.

# **Product Details Page:**

* Provide detailed information about each product, including specifications, reviews, and related items.
* Allow users to select product variations (e.g., size, color) and view additional images.
* Include prominent call-to-action buttons for adding items to cart and initiating checkout.

# **Shopping Cart:**

* Display a summary of items added to the cart, including quantity, prices, and subtotal.
* Allow users to modify quantities, remove items, or apply promotional codes before proceeding to checkout.
* Provide estimates for shipping costs and delivery times based on user preferences.

# **Checkout Process:**

* Guide users through a seamless checkout process with multiple steps (e.g., shipping address, payment method, order review).
* Offer multiple payment options, including credit/debit cards, digital wallets, and cash on delivery.
* Provide order confirmation and tracking details upon successful completion of the transaction.

# **User Account Dashboard:**

* Allow registered users to create and manage their accounts, including personal information, addresses, and payment methods.
* Provide order history, tracking, and returns management functionalities for improved convenience.
* Offer personalized recommendations and exclusive offers based on user preferences and purchase history.

# **Technical Considerations:**

* Utilize modern web development technologies such as HTML5, CSS3, JavaScript, React, Node.js, and MongoDB.
* Implement secure authentication mechanisms (e.g., JWT tokens, OAuth) to protect user accounts and sensitive data.
* Integrate third-party payment gateways (e.g., PayPal, Stripe) for secure and convenient payment processing.
* Optimize website performance and scalability to handle high traffic volumes and accommodate future growth.
* Conduct thorough testing and quality assurance to identify and resolve any issues before launching the website.

By addressing these objectives, monitoring success criteria, and mitigating potential risks, the project aims to create a successful e-commerce platform that meets the needs of both customers and sellers, driving business growth and ensuring long-term success.