E-COMMERCE WEBSITE

A PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report **"E-COMMERCE WEBSITE"** is the bonafide work of **"NIKHIL AGRAWAL, MAYANK AGRAWAL, RANJEET SINGH"** who carried out the project work under my/our supervision.

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INTERNAL EXAMINER   **EXTERNALEXAMINER**

Chapter-1

INTRODUCTION

1.1   Client Identification/Need Identification

1. Many People Leave Without Buying: A survey shows that 7 out of 10 people who put items in their online cart don't end up buying anything, which is a big problem.

2. Customers Don't Like the Mobile Site: Surveys tell us that people aren't happy because the website doesn't work well on phones. This needs fixing to make things better for them.

3. Experts Found Security Issues: People who know a lot about this stuff found problems with how safe it is to buy things on the site. This needs fixing so customers feel safer.

1.2. Identification of Problem

Poor Product Presentation: Inadequate product descriptions, low-quality images, or a lack of customer reviews diminish the perceived value of products, reducing customer trust and deterring purchases.

1.3.   Timeline

1.Planning(3 days): Define project goals and requirements.

2.Development(14 days): Build the front-end and back-end and integrate payment gateways.

3. Manual Testing(1-2 days): Thoroughly test and fix any issues.

4.Development(1-2 days): Configure serves, migrate data and launch the website.

1.4.   Organization of the Report

1. E-commerce Overview: Understanding how people buy things online, what they like, and how websites help them shop.

2.MERN Stack Basic: Learning about MongoDB, Express.js, React, and Node.js, and why they're good for making websites.

Security and Shopping Safety: Knowing how websites protect your information when you buy things online.

Making Websites Easy to Use: Learning how to make websites that are easy to use so people can find and buy things quickly.

Chapter -2

Literature survey

2.1. Proposed solutions

1.User Login: Enable users to create accounts or log in easily using email, social media, or Google accounts for a personalized shopping experience, order history, and saved preferences.

2.Seller Dashboard: Develop a dedicated dashboard for sellers, facilitating easy product management, inventory updates, order processing, and sales analytics for efficient business handling.

3.Add to Cart: Implement a user-friendly "Add to Cart" feature allowing seamless addition of products, with options for quantity adjustments and a clear display of selected items.

4.Responsiveness: Ensure the website is fully responsive, providing an optimal viewing and interaction experience across various devices, such as smartphones, tablets, laptops, and desktops.

2.2. Bibliometric analysis

Product Listing: Display a comprehensive catalog of products with clear images, detailed descriptions, pricing, and categorization for easy browsing.

Product Search: Implement a robust search function allowing users to find products quickly based on keywords, categories, filters, or specific attributes.

Add to Cart: Enable users to add desired products to a virtual shopping cart for later purchase, with options to adjust quantities, view cart contents, and proceed to checkout.

Seller Dashboard: Create a dedicated dashboard for sellers, enabling them to manage product listings, inventory, order processing, sales analytics, and communication with buyers.

2.3. Goals/Objectives

1.Enable Seamless Transactions
2.Enhance User Experience
3.Drive Sales and Revenue
4.Build Brand Loyalty
5.Expand Market Reach
6.Optimize Operations Efficiency
7.Gather Data and Insights

Chapter-3

Design flow/Process

3.1. Evaluation & Selection of Specifications/Features

Homepage: Introduce the website, display featured products, promotions, and navigation options to guide users to different sections.

Product Pages: Detailed pages for each product with images, descriptions, specifications, pricing, and customer reviews to inform purchase decisions.

Search and Navigation: User-friendly search bar, categories, filters, and sorting options to help users easily find products of interest.

Shopping Cart: A visible and accessible cart displaying selected items, quantities, total price, and options for checkout or further browsing.

Checkout Process: Simplified, step-by-step checkout flow, including login or guest checkout, shipping information, payment options, and order confirmation.

User Accounts: User registration, login, and personalized accounts for order tracking, history, saved preferences, and profile management.

Responsive Design: Compatibility with various devices and screen sizes to ensure a consistent experience on desktops, laptops, tablets, and mobile phones.

3.2 Implementation plan/methodology

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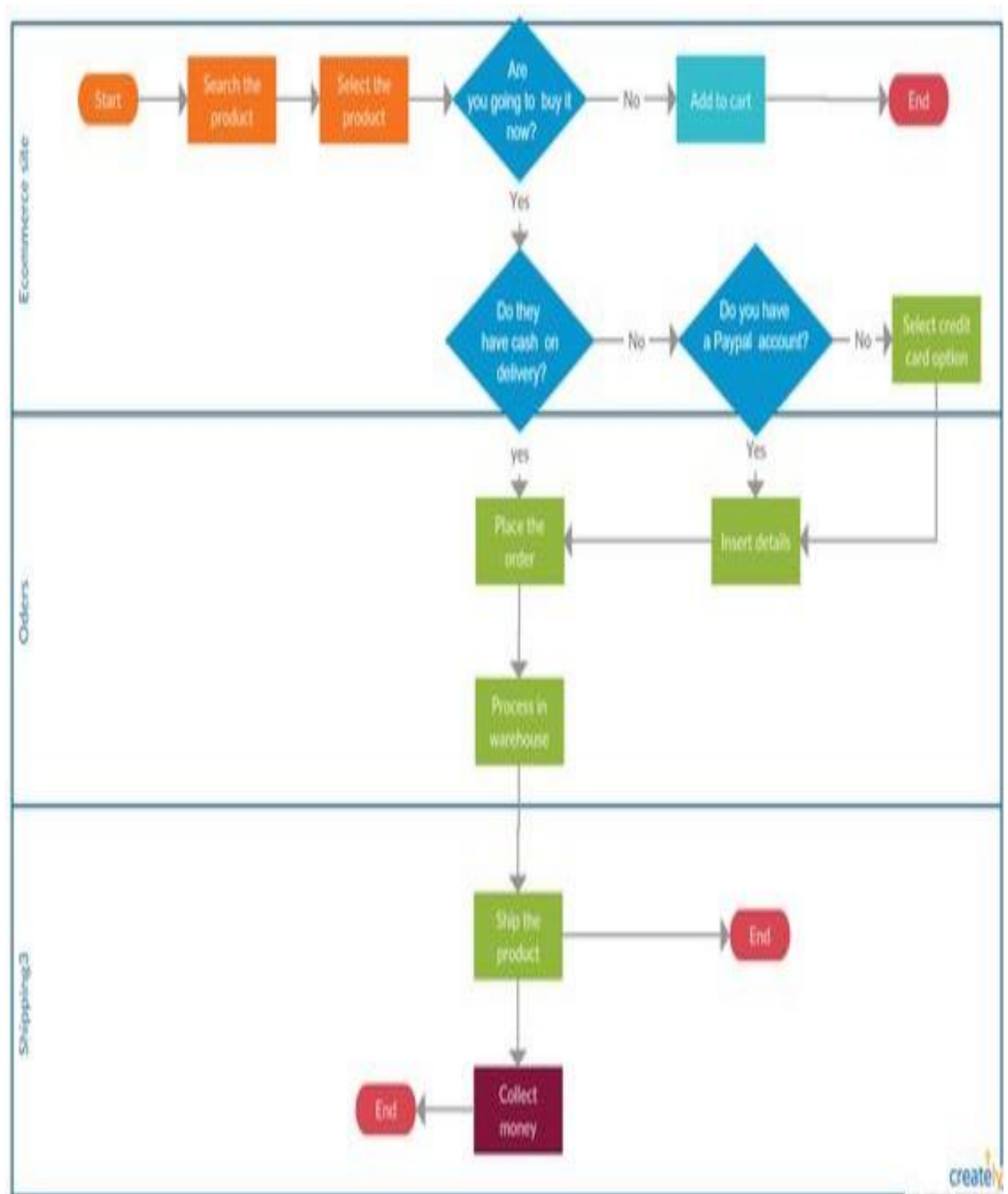
CHAPTER-4

RESULTS ANALYSIS AND VALIDATION

4.1. Implementation of solution

Analysis: Use Google Analytics to understand how people use the website and what they like.

Design: Tools like Adobe XD or Figma help create pictures of how the website will look and work before actually building it.

Reports: Use Microsoft Word, Excel, or PowerPoint to write about the project and show it to others.

Deployment: Use application like GitHub to deploy the project.

CHAPTER-5

CONCLUSION AND FUTURE WORK

5.1. Conclusion

In concluding an e-commerce website using the MERN stack, the focus would be on summarizing.

In closing, the development of our e-commerce website utilizing the MERN stack represents a milestone in creating a robust, user-centric online platform. The cohesive integration of MongoDB, Express.js, React, and Node.js facilitated a dynamic and responsive website, ensuring a seamless user experience. While the journey encountered challenges in optimizing performance and implementing complex features, the stack's versatility allowed us to address these hurdles effectively.

The MERN stack's flexibility empowered our team to create a feature-rich website with scalable architecture, responsive design, and efficient data handling. It enabled secure transactions, intuitive navigation, and personalized experiences for our users, enhancing customer satisfaction and engagement.

5.2.   Future work

1. **Enhanced Personalization**: Implement more advanced algorithms for personalized product recommendations based on user behavior and preferences.

2. **Voice Commerce Integration:** Incorporate voice-activated search and commands for improved accessibility and convenience, catering to emerging consumer trends.

3. **AI-Powered Chatbots:** Integrate AI-driven chatbots to provide instant customer support, answer queries, and guide users through their shopping journey.

REFERENCES

1.MongoDB: MongoDB Documentation

2.Express.js: Express.js Guide

3.React: React Documentation

4.Node.js: Node.js Documentation

GITHUB LINK

Nikhil Agrawal: https://github.com/Nikhil995/Mini-Project

Mayank Agrawal: https://github.com/mayankagrawal328/mini-final.git

Ranjeet Singh: https://github.com/ranjeet701728/ecommerce-miniproject