

Summary of StoreMaster Report

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Project: StoreMaster

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Date: February 2025

Abstract

StoreMaster is a comprehensive e-commerce platform designed to help users create, customize, and manage their online stores. Inspired by platforms like Shopify, it integrates key accessibility features for elderly users and individuals with visual impairments. Features include customizable font sizes, contrast adjustments, screen reader support, and voice control for hands-free navigation. The platform ensures a seamless experience across mobile and web, enabling store owners, employees, and customers to manage their activities efficiently. StoreMaster enhances inclusivity in the digital economy, empowering all users to participate with ease.

Introduction

Problem

Small and medium-sized businesses (SMBs) struggle with setting up online stores due to the complexity and high costs of existing platforms. Accessibility is also a major issue, as many e-commerce solutions lack features for users with disabilities.

Objectives

- Simplified store creation and management with an intuitive interface.
- Customization and scalability for store growth.
- Seamless multi-platform experience.
- Enhanced accessibility with screen reader support, voice commands, and customizable visuals.
- Role-based system supporting store owners, employees, customers, and admins.

Significance

StoreMaster aims to bridge the gap between e-commerce and accessibility, setting a benchmark for inclusive digital platforms.

Methodology

Development Tools & Technologies

- **Frontend:** Flutter (for cross-platform compatibility).
- **Backend:** Node.js (for handling asynchronous activities).
- **Database:** MongoDB (for scalable, flexible data management).
- **Tools:** Visual Studio Code, Postman, Android Studio, GitHub.

System Features

- **User Roles:** Store owners, employees, customers, super admins.
 - **Accessibility:** Color filters for colorblind users, voice control, and large text options.
 - **Authentication & Onboarding:** Role selection, customized login pages, and onboarding guides.
 - **Store Owner Features:** Store setup, inventory management, order processing, and reports.
 - **Store Employee Features:** Order processing, product management, and delivery tracking.
 - **Customer Features:** Browsing stores, shopping cart, order tracking.
 - **SuperAdmin Features:** User and store management, support notifications, analytics.
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Results and Discussion

Key Findings

- Users successfully selected roles and accessed tailored interfaces.
- Store owners could set up and launch their stores easily.
- Checkout processes were optimized for fast transactions.
- Accessibility features improved usability for elderly and visually impaired users.

Challenges & Limitations

- Initial API response delays.
- Minor UI inconsistencies on mobile.
- Further improvements needed for accessibility enhancements.

Conclusion & Future Work

StoreMaster successfully integrates accessibility with advanced e-commerce functionalities, improving inclusivity and usability. Future developments include:

- AI-powered store recommendations.
- Multi-language support.
- Advanced voice control features.
- Community engagement tools.
- Integration with AR/VR for enhanced shopping experiences.

By implementing these improvements, StoreMaster aims to set new standards for accessible e-commerce solutions.