

A Project Activity Report
Submitted for
Ui & Ux SPECIALIST
(UCS 542)

E-COMMERCE SDMN CLOTHING

Submitted By:
RAVNEET KAUR - 102203202
HARDETYA GILL - 102203213

Submitted To:
DR. VIBHA JAIN

III year, BE COE



THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY
(A DEEMED TO BE UNIVERSITY),
PATIALA, PUNJAB, INDIA
Semester V: Jul - Dec 2024

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1. INTRODUCTION

1.1 Purpose of the Document

The purpose of this document is to provide a comprehensive outline of the SDMN platform's objectives, design principles, functional scope, and technical requirements. This document acts as a foundation for understanding the goals and functionalities of the platform, ensuring alignment among the development team, stakeholders, and end-users. This document aims to facilitate a structured approach to designing and implementing the SDMN platform by providing a clear vision and detailed specifications.

1.2 Scope of Development

The development of SDMN aims to:

1. Create an engaging e-commerce platform that offers a wide range of hoodies and jackets.
2. Enable users to search, filter, and purchase products effortlessly through a responsive and intuitive interface.
3. Provide a secure and reliable checkout process with multiple payment options.
4. Integrate a recommendation system to offer personalized shopping suggestions based on user preferences and past interactions.

2. PROBLEM STATEMENT

Current Challenges in Online Fashion Retail:

LACK OF USER-FRIENDLY INTERFACES FOR MOBILE SHOPPERS

With the increasing dominance of mobile shopping, a significant challenge lies in creating responsive, intuitive, and engaging interfaces tailored for mobile devices. Many platforms struggle with adapting their desktop interfaces to mobile screens, leading to clunky navigation, poorly displayed images, and unintuitive controls. Mobile shoppers expect fluidity, where actions like scrolling, zooming in on product images, and toggling between options are seamless. Poor mobile optimization can lead to high bounce rates and lost sales opportunities.

NEED FOR SEAMLESS CART AND CHECKOUT PROCESSES

A common point of frustration for online shoppers is a complex or slow cart and checkout process. Complications such as multiple unnecessary steps, hidden fees revealed late, or unoptimized payment gateways can deter users from completing their purchase. Users demand an efficient and transparent checkout experience, where adding items to the cart, applying discounts, and completing the payment are streamlined. Additionally, a lack of guest checkout options can alienate potential buyers who prefer not to create accounts.

REQUIREMENT FOR RELIABLE PRODUCT CATEGORIZATION AND SEARCH

Effective product categorization and search functionality are crucial in fashion retail, given the vast array of styles, sizes, colors, and brands. Platforms often fail to adequately tag products or provide filtering options, making it difficult for users to locate specific items. For example, a shopper looking for a "blue oversized hoodie" should be able to find relevant results quickly. Poorly designed search algorithms or inconsistent product descriptions can frustrate users, leading to a drop in conversions.

DEMAND FOR SECURE PAYMENT PROCESSING

With increasing incidents of online fraud, users are highly concerned about the security of their transactions. Platforms must offer robust and secure payment processing options to gain customer trust. A lack of encryption protocols, visible security badges, or multi-factor authentication can discourage shoppers from completing their purchase. Additionally, failure to provide diverse payment options such as credit cards, digital wallets, and "buy now, pay later" services limits accessibility.

NEED FOR EFFICIENT ORDER MANAGEMENT AND TRACKING

The post-purchase experience, including order confirmation, shipping updates, and easy returns, significantly impacts customer satisfaction. Many fashion retailers struggle with delays in order processing or fail to provide real-time tracking updates. Inconsistent or unreliable tracking information can lead to customer dissatisfaction and loss of trust in the platform. Additionally, handling returns and refunds efficiently remains a challenge for many retailers, as these processes can be logistically complex and resource-intensive.

3. SPECIFIC REQUIREMENTS

3.1 Functional Requirements

1. USER AUTHENTICATION

- User registration and login
- Password recovery functionality
- Social media login integration

3. SHOPPING CART

- Add/remove items
- Update quantities
- Apply coupon codes
- Calculate totals automatically

5. USER PROFILE

- Order history
- Wishlist management
- Saved addresses
- Payment methods

2. PRODUCT MANAGEMENT

- Product listing (images & details)
 - Product categorization
- Product search and filtering
 - Stock management

4. CHECKOUT PROCESS

- Multiple payment options
- Address management
- Order confirmation
- Invoice generation

6. CONTENT MANAGEMENT

- Blog posts
- Product reviews
- Newsletter subscription
- Contact form

3.2 Non-Functional Requirements

1. PERFORMANCE

- Page load time < 3 seconds
- Support for concurrent users
- Response time < 1 second

2. SECURITY

- SSL encryption
- Secure payment processing
- Data privacy compliance
- Regular security updates

3. USABILITY

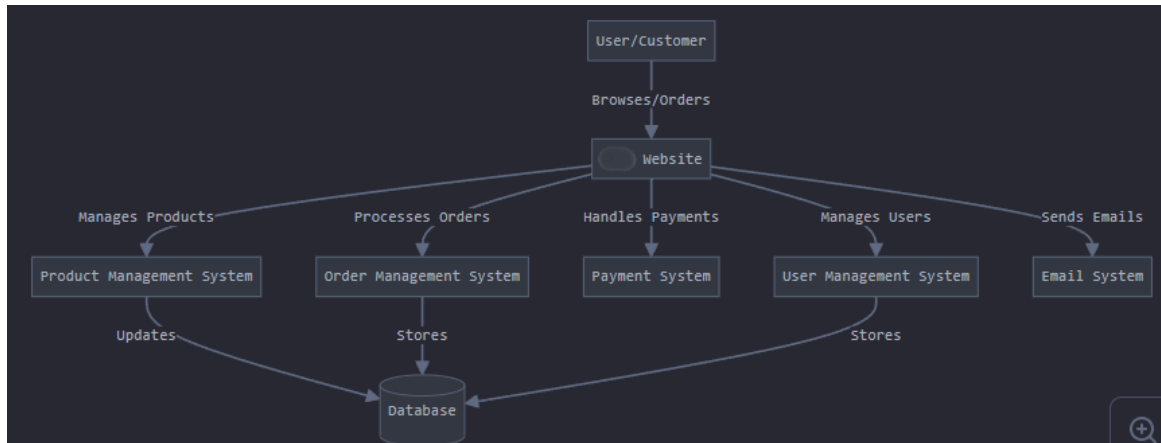
- Responsive design
- Intuitive navigation
- Cross-browser compatibility
- Mobile-first approach

4. RELIABILITY

- 99.9% uptime
- Regular backups
- Error handling
- Data recovery procedures

4. SYSTEM ARCHITECTURE

4.1 Context Level Diagram



User/Customer:

Represents the end-user who interacts with the website. They perform actions like browsing products, placing orders, and managing their account.

Website:

Serves as the central interface for users. It acts as a bridge between the user and the underlying systems, enabling browsing, ordering, and communication with various subsystems.

Subsystems:

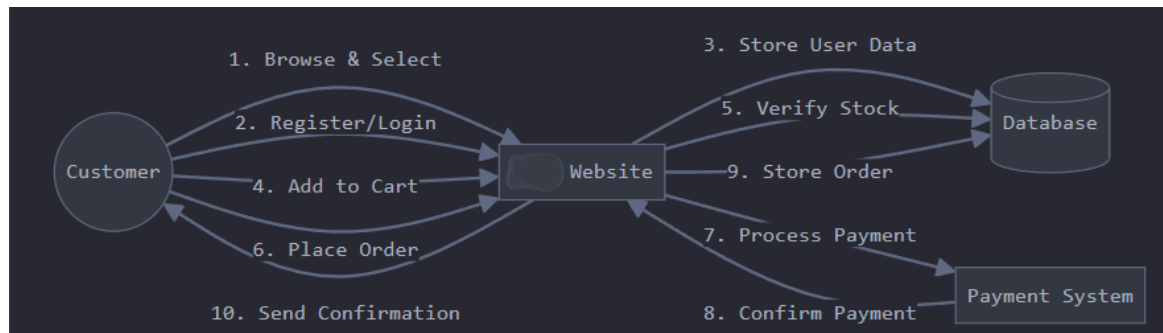
Product Management System, Order Management System, Payment System, User Management System, Email System.

Database:

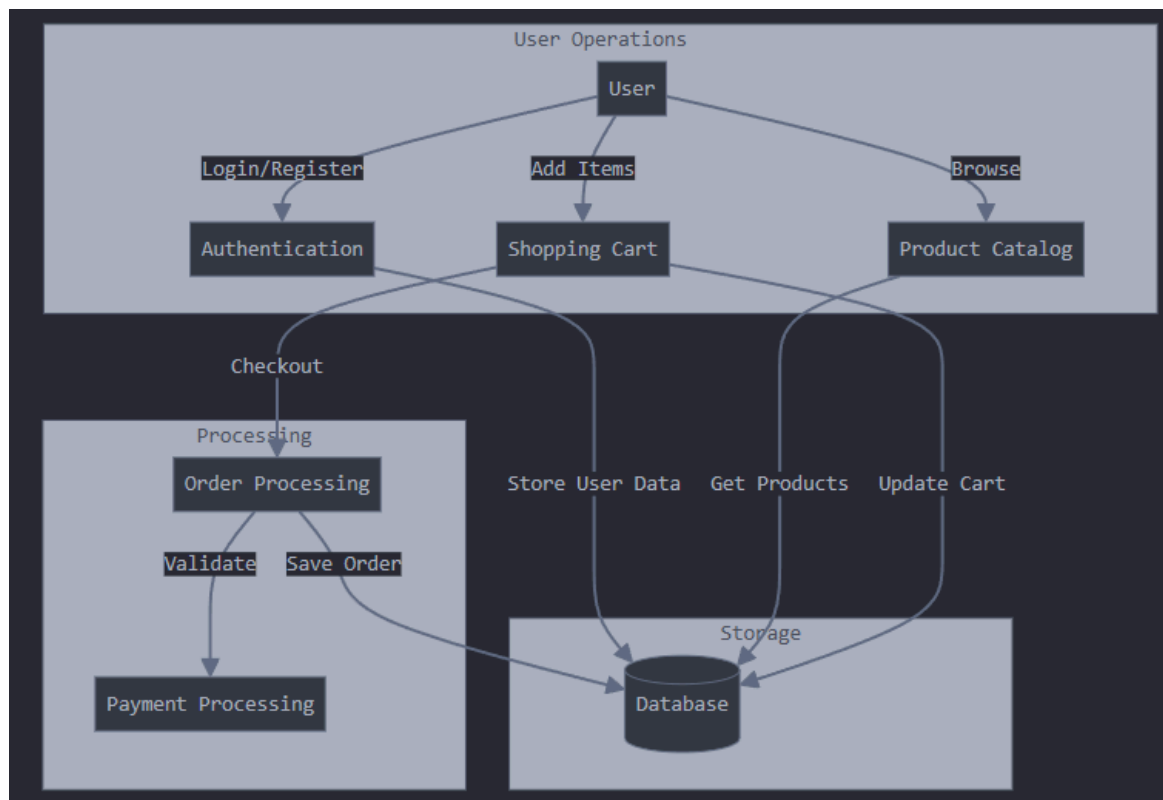
Acts as a central repository for all data related to products, orders, users, and any updates. And, it supports the subsystems by storing and retrieving information as needed. It also maintains the integrity and availability of data across the platform.

4.2 Data Flow Diagram

LEVEL 0:



LEVEL 1:



5. SYSTEM SPECIFICATIONS

5.1 Hardware Specifications

Web Server:

- Minimum 8GB RAM
- 4 Core CPU
- 100GB SSD Storage
- High-speed internet connection

5.2 Software Specifications

Frontend:

- HTML5
- CSS3
- JavaScript
- Responsive framework

Backend:

- Web server (Apache/Nginx)
- Database server (MySQL/PostgreSQL)
- Server-side scripting
- SSL certificate

Development Tools:

- Version control (Git)
- IDE
- Image optimization tools
- Code minification tools

6. TOOLS USED

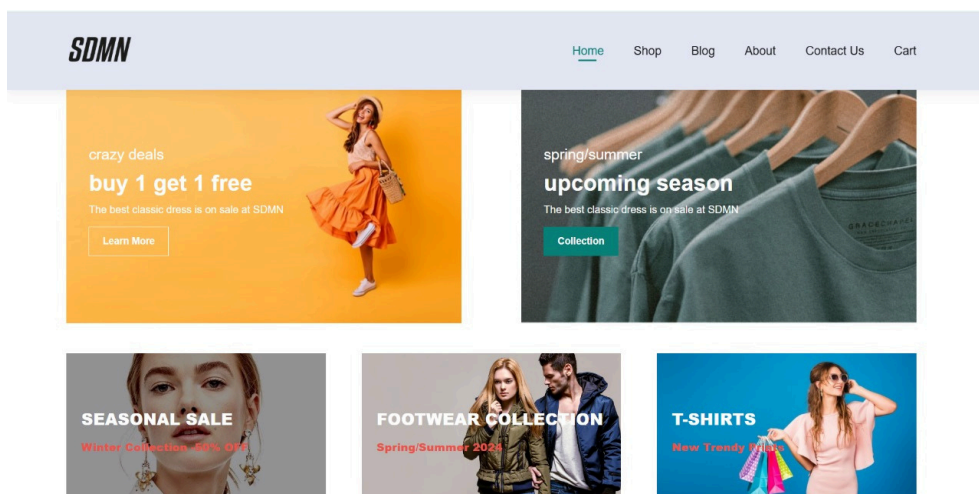
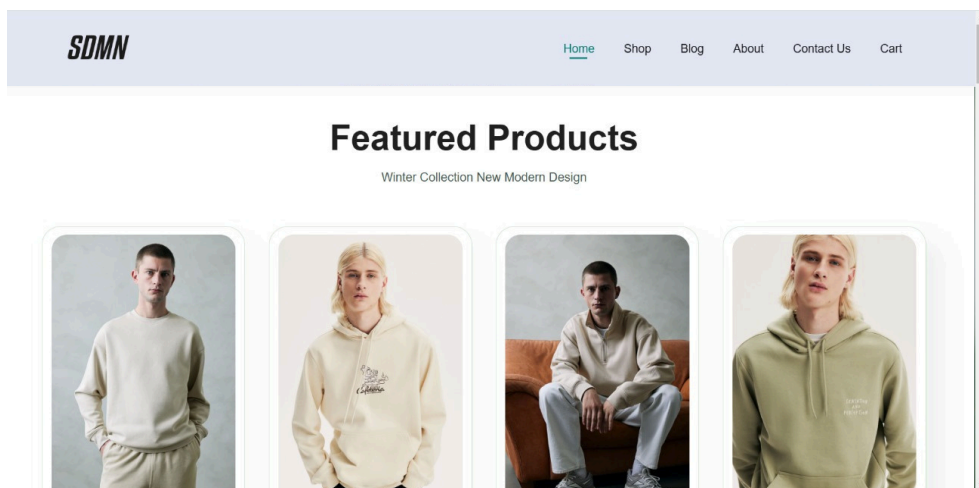
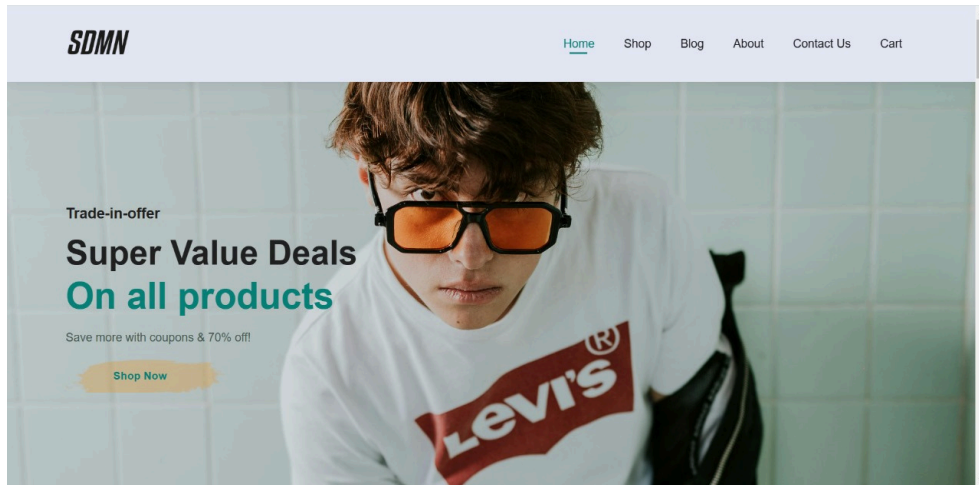
6.1 Development

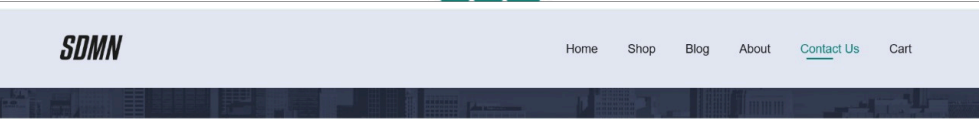
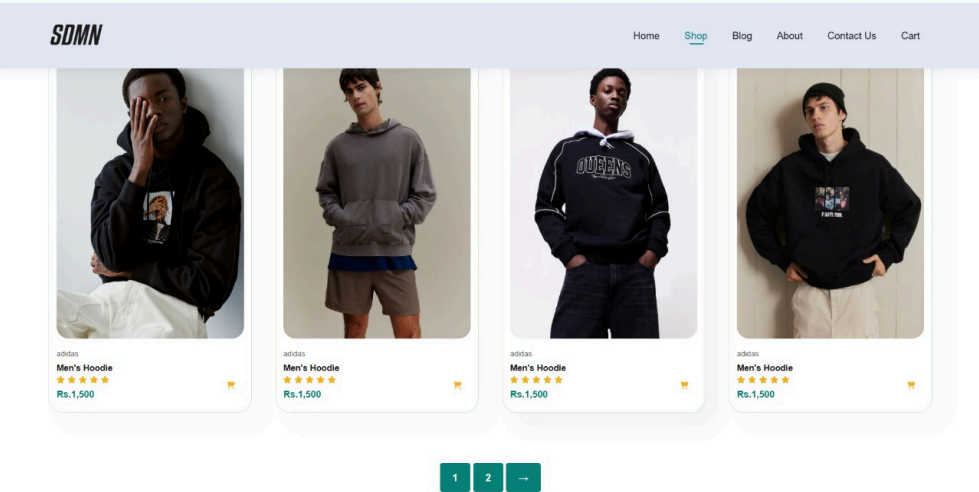
- Visual Studio Code
- Git for version control
- Chrome DevTools
- Postman for API testing

6.2 Design

- Adobe XD/Figma for UI/UX
- Adobe Photoshop for image editing
- Colour palette tools
- Responsive design testing tools

7. SAMPLE SCREENSHOTS



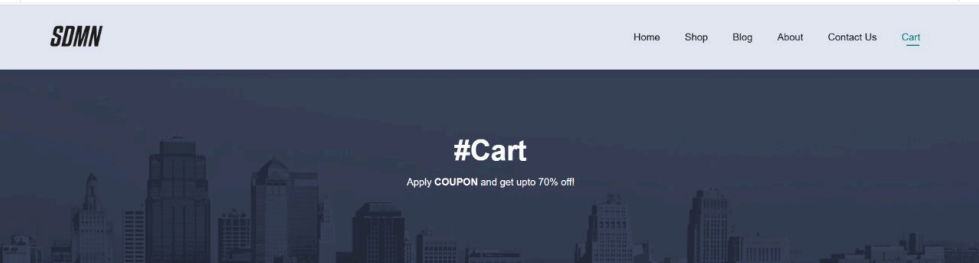
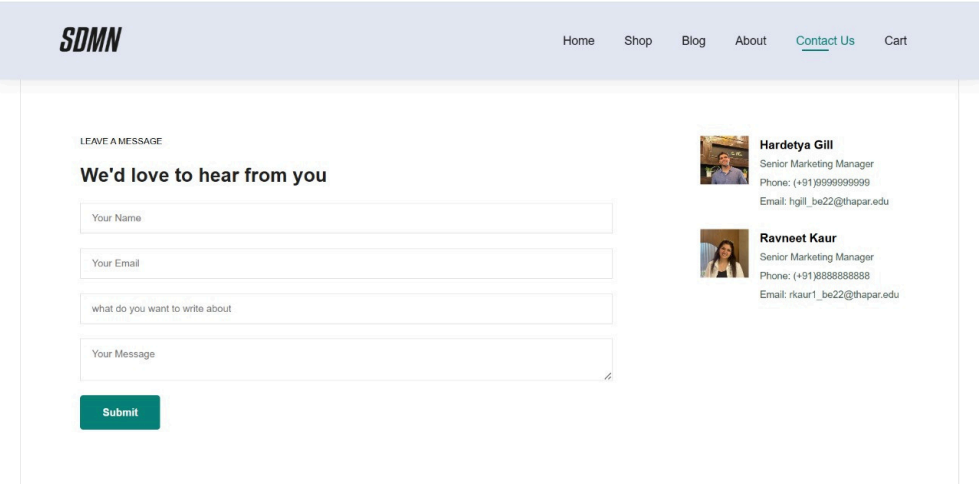


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- Thapar University, Patiala, Punjab
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REMOVE	IMAGE	PRODUCT	PRICE	QUANTITY	SUBTOTAL
		Men's Hoodie	Rs.1,500	<input type="text" value="1"/>	Rs.1,500
		Men's Hoodie	Rs.1,500	<input type="text" value="1"/>	Rs.1,500

8. CONCLUSION

This project seeks to develop a robust and user-friendly platform for online fashion retail, catering to a wide audience interested in trendy and high-quality apparel, such as hoodies and jackets. The primary objective is to deliver a seamless shopping experience by combining intuitive design, advanced functionality, and reliable performance, all while adhering to high-security standards.

The ultimate aim of this project is not only to launch a high-performing e-commerce platform but also to create a trusted online brand for fashion retail. By combining innovation, reliability, and user-focused design, the platform aspires to become a preferred destination for customers seeking stylish and high-quality apparel. This will lay the groundwork for sustainable growth and an expanding loyal customer base.

9. FUTURE ENHANCEMENTS

1. AI-powered product recommendations
2. AR try-on features
3. Mobile app development
4. Integration with more payment gateways
5. Advanced analytics dashboard

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7. <https://sidemenclothing.com/>

THANK YOU!