

BLISS BASKET

A PROJECT REPORT

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Under the Supervision of

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Bliss Basket

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ABSTRACT

Bliss Basket is a comprehensive online shopping platform designed to revolutionize the digital retail experience. The platform offers a user-friendly interface and a seamless shopping journey, providing a diverse range of products across various categories including fashion, electronics, home goods, and more. With advanced search and filter functionalities, personalized recommendations, and secure payment gateways, Bliss Basket ensures an efficient and enjoyable shopping experience for users.

The project incorporates the latest technologies in web development and e-commerce to create a responsive and scalable platform. Key features include a robust backend built with Django, enhanced by a recommendation system powered by machine learning algorithms to suggest products based on user behavior and preferences. The frontend is developed using modern JavaScript frameworks to ensure a smooth and interactive user experience.

Bliss Basket also emphasizes customer satisfaction through features like real-time order tracking, easy returns, and a responsive customer support system. Additionally, the platform integrates with various third-party services for payment processing, shipping, and customer relationship management.

Overall, Bliss Basket aims to set a new standard in online shopping by combining cutting-edge technology with an unwavering focus on user experience and satisfaction.

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CHAPTER 1

INTRODUCTION

The Bliss Basket website is a comprehensive and user-friendly e-commerce website made with Tec stack MERN designed to simplify the process of buying and selling the products. The website caters to individuals who want to buy the products at reasonable price and who want to sell the products at best rate for making some profit. The website is equipped with essential features, login to website, signup to the website, adding products to cart, checking description, searching of project with categories, making payment etc.

1.1 Overview

Bliss Basket is an innovative online shopping platform designed to provide a superior digital retail experience for consumers. Built with a focus on user-friendliness and efficiency, the platform caters to a wide array of product categories, including fashion, electronics, home goods, and more, ensuring that customers have access to a diverse and comprehensive selection of items. The backbone of Bliss Basket is its robust backend architecture, developed using Django, which ensures scalability and reliability. This is complemented by a sophisticated recommendation system powered by machine learning algorithms, which analyzes user behavior and preferences to offer personalized product suggestions, enhancing the shopping experience and increasing user engagement. The frontend of the platform is crafted using modern JavaScript frameworks, providing a responsive and interactive interface that adapts seamlessly to various devices, from desktops to mobile phones. Bliss Basket prioritizes security and convenience in its operations, incorporating secure payment gateways to protect user data and facilitate smooth transactions. The platform also features advanced search and filter options, allowing users to easily find and purchase products that meet their specific needs. To further enhance customer satisfaction, Bliss Basket offers real-time order tracking, hassle-free returns, and a responsive customer support system that is always ready to assist users with their queries and concerns. Integration with third-party services for payment processing, shipping, and customer relationship management ensures that the platform operates efficiently and effectively. Bliss Basket's commitment to leveraging cutting-edge technology and providing exceptional customer service sets it apart in the competitive online shopping landscape. By continuously evolving and incorporating user feedback,

Bliss Basket aims to create a shopping environment that is not only convenient and enjoyable but also tailored to the unique needs of each customer. Bliss Basket prioritizes security and convenience in its operations, incorporating secure payment gateways to protect user data and facilitate smooth transactions. The platform also features advanced search and filter options, allowing users to easily find and purchase products that meet their specific needs. Bliss Basket aims to create a shopping environment that is not only convenient and enjoyable but also tailored to the unique needs of each customer.

1.2 Description

Bliss Basket is a state-of-the-art online shopping platform built with the advanced MERN technology. It's a one-stop solution for people who want to buy and sell products effortlessly and securely. Easy Sign-In, log in or sign up. We prioritize the security of your personal information. Product Management: Sellers can easily add, update, and manage their products. Buyers get a wide range of choices. User-Friendly Design The website is designed to be simple and attractive, making it easy for everyone to use. Convenient Shopping Cart Add items to your cart with a click, making the shopping process smooth and enjoyable. Detailed Product Info: Know what you're buying with detailed product descriptions, helping you make informed decisions. Efficient Search and Categories: Find what you need quickly with powerful search features and well-organized categories. Secure Payments: Make transactions confidently with our integrated secure Payment gateway, keeping your information safe simplified.

Transactions We aim to make buying and selling as easy as possible, creating a hassle-free experience for users. Engaging Experience Enjoy exploring the platform with a user-friendly design that encourages effortless transactions. Profitable Selling Sellers can maximize profits by offering their products at competitive rates, benefiting both buyers and sellers. Scalable and Reliable: We've built a platform that can grow with demand, ensuring a smooth experience even during busy times.

1.3 Key Features

- **User-Friendly Interface:** The website boasts an intuitive and user-friendly interface, ensuring a seamless and enjoyable experience for both buyers and sellers. Bliss Basket's user interface (UI) is designed to be clean, intuitive, and user-friendly. The layout will prioritize ease of navigation, allowing users to quickly find products through categorized menus, advanced search functions, and smart filters. The design will incorporate responsive elements to ensure seamless performance on all devices, including desktops, tablets, and smartphones. Visual cues and interactive elements

will guide users through the shopping process, from browsing to checkout, reducing friction and enhancing the overall user experience.

- **Authentication and Authorization:** Secure login and signup functionalities ensure a personalized experience for users, offering a secure environment for their transactions. Bliss Basket will prioritize data security and user privacy by implementing stringent security measures. This includes using advanced encryption for data transmission, secure authentication processes, and regular security audits. Compliance with data protection regulations such as GDPR will be ensured to safeguard user information. Transparent privacy policies will inform users about how their data is collected, used, and protected, building trust and confidence in the platform.
- **Product Management:** Sellers can effortlessly add and manage their products, providing a diverse range of offerings for potential buyers. The platform will feature an extensive range of products across various categories, such as electronics, fashion, home goods, and groceries. Each product listing will include detailed descriptions, high-quality images, user reviews, and ratings to help users make informed purchasing decisions. Regular updates and a dynamic inventory system will ensure that the latest products are always available. Additionally, features like wish lists and product comparisons will enable users to manage their shopping more effectively.
- **Shopping Cart Functionality:** Users can easily add products to their cart, creating a convenient and efficient shopping experience. Bliss Basket will be built on a scalable architecture using cloud-based solutions and microservices. This approach will enable the platform to handle increasing traffic and transaction volumes without compromising performance. Regular performance testing and optimization will ensure that the platform remains fast and responsive even during peak shopping periods. Scalability will also allow for the seamless addition of new features and integrations as the platform grows, ensuring long-term sustainability and adaptability.
- **Product Descriptions:** Detailed product descriptions empower buyers with essential information, aiding them in making informed purchase decisions. Bliss Basket will leverage machine learning algorithms to offer personalized product recommendations based on user behavior, purchase history, and preferences. These recommendations will be displayed on the homepage, product pages, and during the checkout process to enhance the user's shopping journey. By tailoring suggestions to individual users,

the platform aims to increase user engagement and boost sales. The recommendation system will continuously learn and adapt to provide increasingly accurate and relevant suggestions over time.

- **Search and Categorization:** The website facilitates a powerful search functionality, allowing users to find products swiftly through categories, enhancing the overall browsing experience. The order fulfillment process at Bliss Basket will be designed for efficiency and reliability. Real-time order tracking will keep users informed about their order status from purchase to delivery. The platform will partner with reliable logistics providers to ensure timely and accurate deliveries. Features like easy returns and exchanges, combined with a transparent return policy, will provide users with confidence and flexibility. Automated notifications and alerts will keep users updated on their orders, ensuring a smooth and satisfying shopping experience.
- **Secure Payment Gateway:** The incorporation of a secure payment gateway ensures safe and reliable transactions, instilling confidence in users while making payments. Ensuring secure transactions is a top priority for Bliss Basket. The platform will support a variety of payment methods, including credit and debit cards, digital wallets, and bank transfers. Advanced encryption technologies and secure payment gateways will be used to protect user data and prevent fraud. Users will also benefit from features like saved payment information for faster checkouts, and the option to pay in installments or via cash on delivery, catering to different user preferences and enhancing convenience.

1.4 Objectives

- **Simplify Buying and Selling:** The primary objective of Bliss Basket is to create an intuitive and user-friendly interface that enhances the shopping experience. This interface will be visually appealing, easy to navigate, and designed to reduce the number of clicks needed to find and purchase products. Key features will include clear categorization, advanced search functionalities, and a straightforward checkout process. User feedback will be continuously gathered through surveys and usability testing to refine and improve the interface. By focusing on user-centric design principles, Bliss Basket aims to make online shopping enjoyable and accessible for users of all ages and technical proficiencies.
- **User Engagement:** Offering a diverse range of products across multiple categories is essential to meet various customer needs and preferences. Bliss Basket will partner with a wide array of vendors and suppliers to provide a comprehensive

selection of items, including fashion, electronics, home goods, and groceries. The platform will regularly update its inventory to include the latest products, seasonal items, and trending goods. Detailed product descriptions, high-quality images, and user reviews will ensure customers can make informed purchasing decisions. By maintaining a rich and varied product catalog, Bliss Basket aims to be a one-stop-shop for all consumer needs.

- **Profitable Selling Opportunities:** Create a marketplace that not only benefits buyers but also offers sellers the opportunity to maximize profits by providing a platform for selling products at competitive rates. To enhance user engagement and satisfaction, Bliss Basket will implement personalized product recommendations powered by machine learning algorithms. These algorithms will analyze user behavior, browsing history, and purchase patterns to suggest relevant products. Personalized recommendations will be prominently displayed on the homepage, within product pages, and through targeted marketing communications, such as email and push notifications. This level of customization aims to create a more engaging shopping experience, helping users discover products they might not have considered, thus increasing conversion rates and customer retention.
- **Scalability and Performance:** Ensuring secure and reliable transactions is crucial for building user trust. Bliss Basket will implement advanced encryption technologies and comply with industry standards for payment processing and data protection. Multiple payment options, including credit/debit cards, digital wallets, and bank transfers, will be available to accommodate different user preferences. Fraud detection and prevention measures will be in place to safeguard users against unauthorized transactions. Additionally, a transparent refund and return policy will be established to address any issues promptly, further enhancing user confidence in the platform's security and reliability.
- **Personalizing Shopping Experiences:** Consumers could have a customized shopping experience. Consumers can browse for a large range of products based on their preferences and needs without restriction. One-commerce websites, customers are presented products depending on their interests and geography. Efficient order management is key to providing a seamless shopping experience. Bliss Basket will develop a robust system for processing orders, tracking shipments, and managing returns. Real-time order tracking will allow users to monitor their purchases from confirmation to delivery. An easy and hassle-free return policy, along with clear return and exchange procedures, will ensure customer satisfaction. Prompt customer support will be available to address any order-related issues. By streamlining the

order management process, Bliss Basket aims to minimize delays and errors, contributing to a positive overall user experience.

- **Elevating Buying Process:** E-commerce has accelerated the entire purchasing procedure for consumers. They can purchase things from the comfort of their own homes, without the need to visit actual stores. It saves enormous amounts of time and expedites transactions. Ensuring mobile accessibility is critical in today's digital landscape. Bliss Basket will feature a responsive design that adapts seamlessly to various screen sizes and devices, providing a consistent and enjoyable shopping experience on desktops, tablets, and smartphones. Mobile users will benefit from easy navigation, quick load times, and touch-friendly interfaces. A dedicated mobile app will be developed to offer additional features, such as push notifications for deals and updates. By prioritizing mobile accessibility, Bliss Basket will cater to the increasing number of users who prefer shopping on their mobile devices.
- **Retargeting Customers:** Online purchasing has simplified the process of retargeting customers for businesses. While clients are shopping online, the ecommerce enterprise collects a large amount of information about them. Periodically, customers can be contacted by sending them personalized emails, messages, promotions, and discounts. Integrating with third-party services is vital for enhancing the functionality and efficiency of Bliss Basket. Payment gateways will be integrated to provide secure and diverse payment options. Shipping services will be connected to streamline logistics and offer reliable delivery options. Customer Relationship Management (CRM) systems will be incorporated to manage customer interactions and support. These integrations will ensure that Bliss Basket operates smoothly and efficiently, providing a comprehensive and cohesive shopping experience. Regularly updating and maintaining these integrations will be essential to adapt to new technologies and services.
- **Access to Customer Data:** E-commerce platforms gather valuable data about customer behavior, preferences, and demographics. This data can be analyzed to make informed business decisions, refine marketing strategies, and enhance the overall customer experience. Delivering exceptional customer service is a key objective for Bliss Basket. Responsive customer support will be available through multiple channels, including chat, email, and phone, to assist users with any queries or issues. A clear and customer-friendly return policy will be in place to handle returns and exchanges smoothly. User feedback will be actively sought and used to improve the platform continuously. Loyalty programs and personalized offers will reward repeat customers. By prioritizing customer satisfaction, Bliss Basket aims to build a loyal user base and foster long-term relationships.

- **Flexibility and Scalability:** Online businesses can easily adapt to changing market conditions and scale their operations to accommodate growth. This flexibility is crucial for businesses experiencing fluctuations in demand or those looking to expand. Designing the platform for scalability is essential to handle growing numbers of users and transactions. Bliss Basket will employ scalable technologies and architectures, such as cloud computing and microservices, to ensure the platform can accommodate increased loads without compromising performance. Regular performance testing and optimization will be conducted to maintain speed and responsiveness. This scalable infrastructure will enable Bliss Basket to expand its user base and product offerings seamlessly, supporting business growth and ensuring a consistent user experience even during peak times.
- **Data Security and Privacy:** Ensuring data security and privacy is critical for maintaining user trust. Bliss Basket will implement strong data encryption, secure authentication mechanisms, and regular security audits to protect user information. Compliance with data protection regulations, such as GDPR, will be strictly adhered to. Transparent privacy policies will inform users about data collection, usage, and protection practices.

The project also emphasizes the importance of efficient backend operations, including inventory management, order processing, and customer service. By leveraging data analytics, Bliss Basket plans to continually optimize its operations and marketing strategies to meet customer demands and preferences. Ultimately, the goal is to build a trusted online marketplace that prioritizes customer satisfaction and fosters long-term loyalty. The objective of the Bliss Basket project is to create an efficient, user-friendly online e-commerce platform that caters to the diverse shopping needs of consumers. The platform aims to offer a wide range of products, from daily essentials to luxury items, ensuring that customers have access to a comprehensive selection of high-quality merchandise. By integrating advanced search and filtering options, Bliss Basket seeks to enhance the shopping experience, making it easy for users to find and purchase products that meet their specific requirements.

To achieve this, the project focuses on developing a robust and scalable website with seamless navigation, fast load times, and secure payment gateways. Special attention is given to user experience design, ensuring that the interface is intuitive and accessible across various devices. Additionally, Bliss Basket aims to incorporate personalized recommendations and reviews to help customers make informed decisions.

1.5 Benefits of Bliss Basket

Bliss Basket offers a plethora of benefits to both consumers and businesses, making it a valuable addition to the online shopping landscape. For consumers, Bliss Basket provides convenience, allowing them to browse and purchase products from the comfort of their homes. The platform offers a wide range of products across various categories, ensuring that consumers can find everything they need in one place.

Moreover, Bliss Basket enhances the shopping experience through personalized recommendations based on user behavior and preferences. This not only saves time for consumers but also ensures that they discover products that align with their interests.

For businesses, Bliss Basket provides a robust e-commerce platform that is easy to set up and manage. The platform incorporates advanced technologies such as AI and ML algorithms to optimize pricing strategies, offer personalized recommendations, and improve customer service. This helps businesses attract and retain customers, ultimately driving sales and revenue.

Overall, Bliss Basket is poised to revolutionize the online shopping experience, offering benefits that cater to the needs of both consumers and businesses.

CHAPTER 2

FEASIBILITY STUDY

The MERN E-Commerce project aims to assess the viability and practicality of developing an online market place using MongoDB, Express.js, React, and Node.js. This feasibility study evaluates technical, operational, economic and aspects to determine the project's viability.

2.1 Technical Feasibility

Technology Stack: MERN stack is widely used and has proven its effectiveness in building scalable and responsive web applications. Availability of skilled developers and a large community for support. **Scalability:** MongoDB's scalability allows the system to handle increased data and user loads. Node.js supports asynchronous, non-blocking I/O, making it suitable for handling a large number of concurrent connections. **Third-Party Integrations:** Availability of APIs and SDKs for common e-commerce functionalities such as payment gateways, shipping providers, and inventory management. **Development Tools:** A rich set of development tools and libraries for React.js, Node.js, and MongoDB simplifies the development process.

Security Measures: Implementing secure coding practices, encryption, and authentication mechanisms to ensure the security of user data and transactions. Technical feasibility for the Bliss Basket project involves assessing the practicality and viability of implementing the required technologies and infrastructure to develop and maintain the online shopping platform. The project requires a robust and scalable architecture to support the anticipated user base and transaction volume. Implementing a cloud-based infrastructure, such as AWS or Azure, would provide the scalability and reliability needed to handle peak loads and ensure uninterrupted service. The platform's backend will be developed using Django, a high-level Python web framework, for its robustness and flexibility. To enhance user experience and engagement, machine learning algorithms will be integrated to provide personalized product recommendations based on user behavior and preferences. Security is paramount, and the platform will employ industry-standard encryption protocols and secure payment gateways to protect user data and transactions. Additionally, integrating with third-party services for payment processing, shipping, and customer relationship management will

enhance the platform's functionality and efficiency. Continuous testing and optimization will be conducted to maintain performance and reliability. Overall, the technical feasibility of the Bliss Basket project is high, given the availability of modern technologies and the expertise required to implement them effectively.

2.2 Operational Feasibility

User Experience: Ensuring the website is user-friendly and provides a positive shopping experience. Regularly updating and optimizing the user interface based on user feedback.

Scalability and Performance: Ensuring the system can handle increased traffic during peak times. Monitoring and optimizing performance to provide a responsive experience. **Training and Support:** Providing training for administrators and support staff to manage and maintain the e-commerce platform. Ensuring there is a support system in place for users encountering issues.

Compliance and Regulations: Adhering to legal and regulatory requirements related to e-commerce, data protection, and online transactions. Operational feasibility for Bliss Basket, an online shopping platform, focuses on assessing whether the proposed system can be effectively integrated into the existing operations and environment. This includes evaluating the technical capabilities, human resources, and organizational processes required for the platform's successful implementation and operation. From a technical standpoint, Bliss Basket's operational feasibility depends on its ability to seamlessly integrate with existing systems, such as inventory management, order processing, and customer relationship management. Compatibility with different devices and browsers is crucial to ensure a smooth user experience across various platforms. Human resources play a vital role in operational feasibility, as the platform will require skilled personnel for maintenance, updates, and customer support. Adequate training programs will be essential to equip employees with the necessary skills to utilize the platform effectively. Organizational processes must also be evaluated to ensure that Bliss Basket aligns with the company's goals, policies, and workflows. This includes assessing the impact of the platform on existing business processes and determining the feasibility of implementing any necessary changes. Overall, the operational feasibility of Bliss Basket hinges on its ability to seamlessly integrate with existing systems, leverage human resources effectively, and align with organizational processes to ensure a successful and sustainable operation.

2.3 Economic Feasibility

Economic feasibility for Bliss Basket, an online shopping platform, is promising due to several factors. The initial investment in developing the platform, including software development, website design, and infrastructure setup, can be offset by the potential for high returns in the e-commerce market. Revenue streams, such as transaction fees, subscription services, and targeted advertising, offer sustainable income sources. Moreover, the scalability of the platform allows for cost-effective expansion as the user base grows. Operating costs, including maintenance, marketing, and customer support, can be managed efficiently through automation and optimization strategies. The platform's ability to reach a global audience and operate 24/7 without geographical limitations maximizes revenue potential. Additionally, strategic partnerships with suppliers, logistics providers, and payment gateways can reduce operational costs and increase efficiency. By analyzing market trends, competitor strategies, and user behavior, Bliss Basket can make informed decisions to maximize profitability and ensure long-term success in the competitive e-commerce landscape. Staff to manage and maintain the e-commerce platform. Ensuring there is a support system in place for users encountering issues. Compliance and Regulations: Adhering to legal and regulatory requirements related to e-commerce, data protection, and online transactions.

CHAPTER 3

SYSTEM REQUIREMENTS

3.1 System Requirements

Bliss Basket, an online shopping platform, requires a robust and scalable system to handle a large number of users, transactions, and products while ensuring a seamless shopping experience. The system requirements encompass hardware, software, and network infrastructure, as well as security and scalability considerations.

3.2 Hardware Requirements:

1. Servers: Bliss Basket will require multiple servers to handle different aspects of the platform, such as web servers, application servers, and database servers. These servers should have sufficient processing power, memory, and storage capacity to support concurrent user requests and data processing.

2.Storage: Adequate storage capacity is essential to store product images, descriptions, user data, and transaction records. The storage solution should be scalable to accommodate future growth.

3. Networking Equipment: High-speed networking equipment, such as routers, switches, and load balancers, is required to ensure fast and reliable data transfer between servers and users.

3.3 Software Requirements:

1. Operating System: The servers should run a reliable and secure operating system, such as Linux or Windows Server, optimized for web hosting and database management.

2. Web Server: A web server, such as Apache or Nginx, is needed to serve web pages and handle HTTP requests from users.

3. Application Framework: Bliss Basket will be developed using a framework like Django or Ruby on Rails, which provides tools and libraries for building web applications.

4. Database Management System: A robust database management system (DBMS), such as PostgreSQL or MySQL, is essential for storing and retrieving product information, user data, and transaction records.

5. Programming Languages: Languages like Python, JavaScript, HTML, and CSS will be used for developing the frontend and backend of the platform.

6. Security Software: Antivirus, firewall, and intrusion detection/prevention systems are required to protect the platform from cyber threats and attacks.

3.4 Network Infrastructure:

1. Internet Connection: A reliable and high-speed internet connection is crucial for ensuring fast access to the platform from anywhere in the world.

2. Content Delivery Network (CDN): Implementing a CDN will improve the performance of the platform by caching static content and serving it from servers closer to the user's location.

3. Load Balancer: A load balancer is needed to distribute incoming traffic across multiple servers, ensuring optimal performance and preventing server overload.

3.5 Security Considerations:

1. Data Encryption: All sensitive data, such as user credentials and payment information, should be encrypted using secure protocols (e.g., SSL/TLS) to protect it from unauthorized access.

2. User Authentication: Implementing strong user authentication mechanisms, such as two-factor authentication, will enhance the security of user accounts.

3. Regular Security Audits: Conducting regular security audits and penetration testing will help identify and mitigate vulnerabilities in the system.

4. Data Backup: Implementing regular data backup procedures will ensure that data can be recovered in the event of a system failure or data breach.

3.6 Scalability:

1. Scalable Architecture: Designing the platform with scalability in mind, using technologies like microservices architecture and containerization, will allow it to handle increasing user loads and product catalogs.

2. Elastic Computing Resources: Using cloud computing services, such as Amazon Web Services (AWS) or Microsoft Azure, will provide access to elastic computing resources that can scale up or down based on demand.

3. Database Sharding: Implementing database sharding, which involves splitting the database into smaller, more manageable parts, will improve database performance and scalability.

In conclusion, meeting these system requirements will ensure that Bliss Basket operates efficiently, securely, and reliably, providing users with a seamless and enjoyable online shopping experience.

3.7 Data Flow Diagram

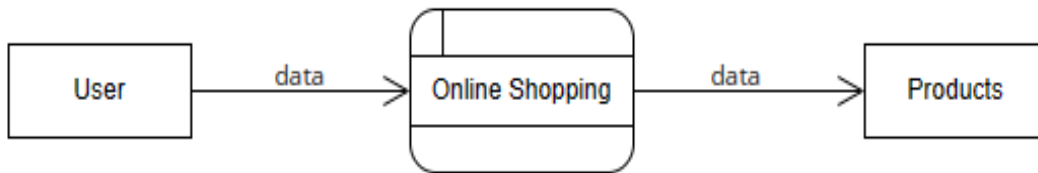


Fig. 3.1 Level 0 DFD

User initiates the online shopping process by providing input and receiving outputs. Online shopping module will manage the overall online shopping functionality. Products represents the range of items available for purchase in the online store.

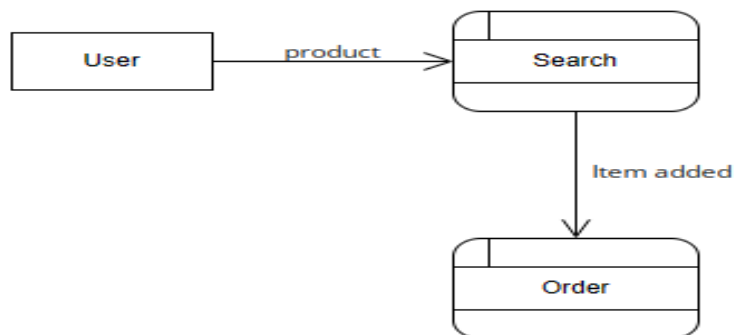


Fig.3.2 Level1 DFD

Search Receives user search queries from the User. Utilizes these arch algorithms to find matching products. Sends the search results back to the User. Order module will the place order as the user's choice and selection.

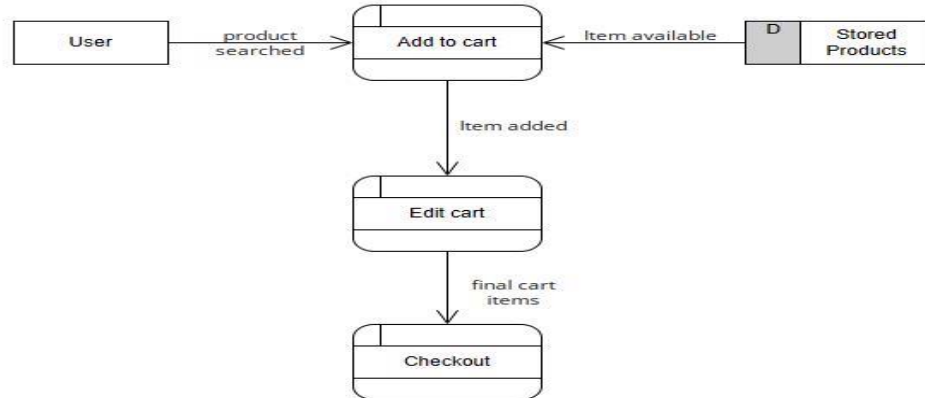


Fig. 3.3 Level 2 DFD

Add to cart Receives selected products from the User. Updates the user's shopping cart with the selected items. Sends an acknowledgment to the User. Edit cart will allows the user to modify the contents of their shopping cart. Checkout process manages the completion of the user's order, including payment and shipping details.

3.8 Use Case diagram

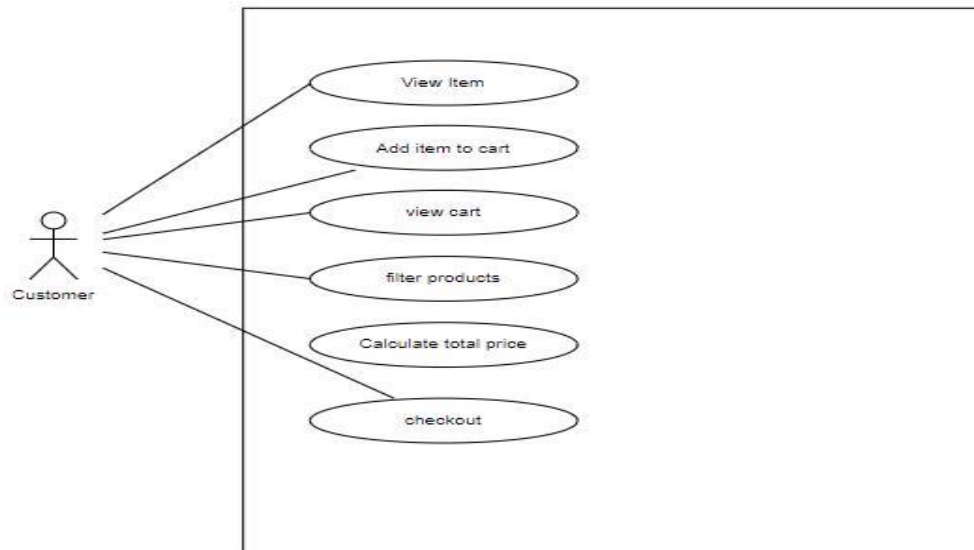


Fig. 3.4 User Use case diagram

The "View Items" use case represents the user's ability to browse and explore the available products in the system. The "Add Item to Cart" use case reflects the action of selecting a product and placing it into the virtual shopping cart. This process enables users to accumulate desired items for future consideration.

3.9 ER Diagram

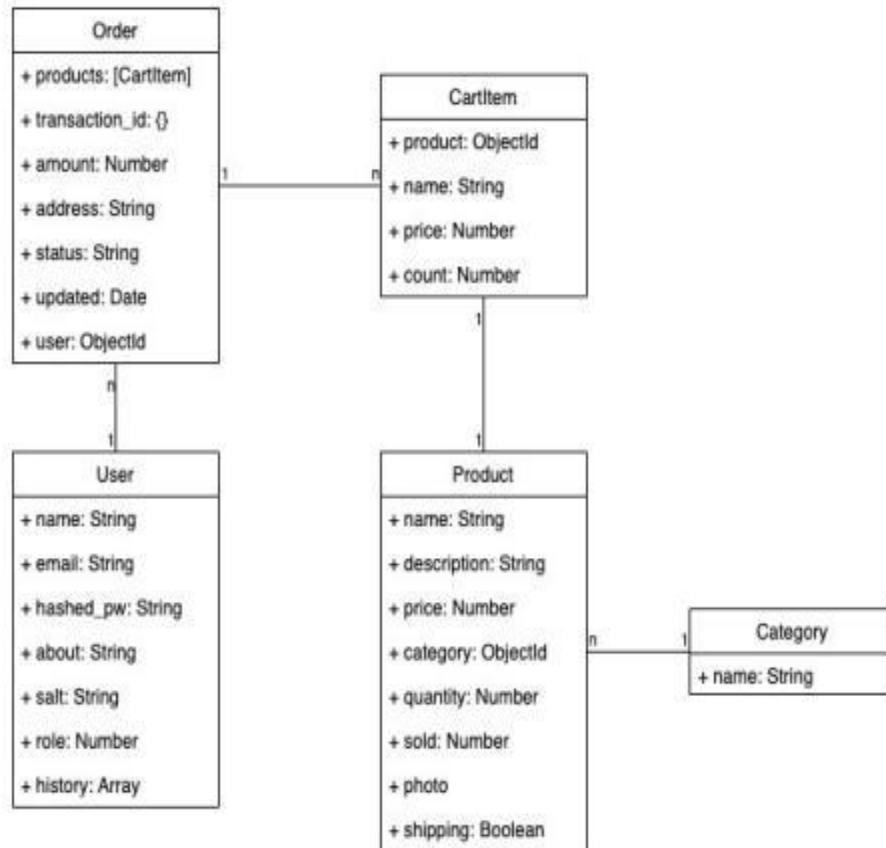


Fig. 3.5 ER diagram

CHAPTER 4

SYSTEM ANALYSIS

Systems analysis is the process by which an individual studies a system such that an information system can be analyzed, modelled, and a logical alternative can be chosen. Systems analysis projects are initiated for three reasons: problems, opportunities, and directives.

4.1 Requirement Gathering

The success of the "Bliss Basket" platform relies on a comprehensive understanding of user needs and system functionalities. Requirements gathering involves extensive communication with stakeholders to identify and document key features and specifications. The following categories of requirements were identified:

4.1.1 User Requirements

- **User Registration:** The system must allow students and faculty members to register securely, providing unique user credentials.
- **User Profile Management:** Users should be able to update their profile information, including personal details, address, and payment methods.
- **Product Catalog:** Users should be able to browse a comprehensive catalog of products categorized by type. Users should be able to browse a comprehensive catalog of products categorized by type.
- **Shopping Cart:** Users should be able to add products to a shopping cart. Users should be able to add products to a shopping cart.
- **Checkout and Payment:** Users should be able to proceed to checkout from the shopping cart. The checkout process should include entering shipping information and selecting a payment method.
- **Order Management:** Users should be able to track the status of their orders in real-time. Users should be able to track the status of their orders in real-time.

- **Reviews and Ratings:** Users should be able to leave reviews and ratings for products they have purchased. Reviews should be moderate to ensure appropriate content.
- **Customer Support:** Users should have access to a helpdesk or chat support for resolving issues and answering queries. A comprehensive FAQ section should be available to address common questions and issues.
- **Security:** The system should use SSL encryption to secure user data during transmission. Sensitive information, such as passwords and payment details, should be securely stored using industry-standard encryption methods.
- **Mobile Compatibility:** The website should be fully responsive and accessible on various devices, including desktops, tablets, and smartphones.
- **Performance and Scalability:** The system should be able to handle high traffic and large numbers of transactions efficiently. Page load times should be optimized to ensure a smooth user experience.

4.1.2 Functional Requirements

- **User Registration and Authentication:** The system shall allow users to create an account using their email and password. The system shall provide secure login and logout functionality. The system shall provide secure login and logout functionality.
- **User Profile Management:** The system shall allow users to update their personal information, including name, address, and contact details. The system shall allow users to manage their payment methods.
- **Product Catalog:** The system shall display a comprehensive product catalog with categories and subcategories. Each product shall have detailed information, including title, description, price, images, and reviews. The system shall support advanced search functionality and filtering options (e.g., by price, category, ratings).
- **Shopping Cart Management:** The system shall display a comprehensive product catalog with categories and subcategories. Each product shall have detailed information, including title, description, price, images, and reviews. The system shall support advanced search functionality and filtering options (e.g., by price, category, ratings).
- **Checkout and Payment:** The system shall display a comprehensive product catalog with categories and subcategories. Each product shall have detailed information, including title, description, price, images, and reviews. The system shall support advanced search functionality and filtering options (e.g., by price, category, ratings).

- **Order Management:** The system shall display a comprehensive product catalog with categories and subcategories. Each product shall have detailed information, including title, description, price, images, and reviews. The system shall support advanced search functionality and filtering options (e.g., by price, category, ratings).
- **Product Reviews and Ratings:** The system shall allow users to leave reviews and ratings for products they have purchased. The system shall display average ratings and reviews on product pages. The system shall include moderation functionality to manage inappropriate reviews.
- **Customer Support:** The system shall provide an integrated chat support feature for user inquiries and issues. The system shall include a helpdesk feature for ticket-based customer support. The system shall provide an FAQ section to address common user questions.
- **Security:** The system shall use SSL encryption to secure data transmission. The system shall securely store sensitive information, such as passwords and payment details, using industry-standard encryption. The system shall implement measures to protect against common security threats, such as SQL injection and cross-site scripting (XSS).
- **Mobile Compatibility:** The system shall have a responsive design to ensure usability across different devices (desktops, tablets, smartphones). The system shall maintain functionality and performance on mobile browsers.
- **Performance and Scalability:** The system shall be optimized to handle high traffic and large numbers of simultaneous transactions. The system shall provide fast page load times and efficient database queries to enhance user experience.

4.13 Non-Functional Requirements

- **Security Measures:** Robust security measures should be implemented to ensure the confidentiality of user data, preventing unauthorized access and safeguarding sensitive information.
- **Performance Optimization:** The system must be optimized to handle a substantial number of concurrent users without compromising response times, ensuring a seamless user experience.
- **Compliance and Development Technologies:** Adherence to specified development technologies, including HTML, CSS, PHP, Bootstrap, and MySQL, is crucial for consistency and compatibility.

4.2 SYSTEM DESIGN

The system design for the "Bliss Basket" platform involves defining the architectural structure, system flow, and technology stack.

Architectural Structure:

- Multi-tier Architecture: Includes presentation, business logic, and data access layers.

System Flow:

- User Interaction: User inputs are processed and validated.
- Data Handling: logic processes data and communicates with the database.

4.3 DATA MODELING

The data model for "Bliss Basket" involves creating and organizing database tables. Database Tables:

- User Information: Stores user ID, name, email, and hashed password.
- Products: ProductID, Name, Description, Price, StockQuantity, CategoryID (Foreign Key), ImageURL
- Categories: CategoryID (Primary Key), CategoryName, Description
- Orders: OrderID (Primary Key), UserID (Foreign Key), OrderDate, TotalAmount, ShippingAddress, OrderStatus (e.g., Pending, Shipped, Delivered, Cancelled)

4.4 FEASIBILITY ANALYSIS

A feasibility analysis is conducted to assess the viability of the "Bliss Basket" platform in terms of technical, operational, and economic factors. This involves evaluating the technical capabilities of the chosen technologies, assessing operational requirements, and estimating the overall cost of development and maintenance. This chapter outlines the process of requirements gathering, system design, data modelling, and feasibility analysis for the "Bliss Basket" platform. The subsequent chapters will delve into the implementation, testing, and deployment phases, providing a comprehensive overview of the system's development lifecycle.

CHAPTER 5

SYSTEM DESIGN

5.1 Introduction

Bliss Basket is an online e-commerce website that aims to provide a seamless shopping experience for its users. The system design for Bliss Basket encompasses various components and technologies to ensure reliability, scalability, and performance.

5.2 System Architecture

The system will be designed using a micro services architecture, with each component responsible for specific functions such as user management, product catalog, shopping cart, and order processing. This architecture allows for flexibility, scalability, and easy maintenance of the system.

5.3 Modules

The system design for Bliss Basket, an online e-commerce website, includes several key modules to ensure a seamless shopping experience. The User Management Module handles user registration, login, and profile management, while the Product Catalog Module manages the product catalog and provides product information. The Shopping Cart Module manages the shopping cart functionality, and the Order Management Module handles order processing and fulfillment. The Review and Rating Module allows users to leave reviews and ratings for products, and the Search and Filter Module provides advanced search and filtering options. The Content Management Module manages website content, and the Reporting and Analytics Module generates reports and analytics for business insights. Together, these modules create a robust and efficient e-commerce platform for Bliss Basket, ensuring a user-friendly experience for its customers.

5.3.1 User Management Module

Responsible for user registration, login, and profile management. Handles user authentication and authorization. Manages user data, including personal information, addresses, and payment methods.

5.3.2 Product Catalog Module

Manages the product catalog, including adding new products, updating existing products, and removing discontinued products. Provides product information such as name, description, price, and images. Supports categorization and filtering of products for easy browsing.

5.3.3 Shopping Cart Module:

Manages the shopping cart functionality, allowing users to add, remove, and update items in their cart. Calculates the total cost of items in the cart, including taxes and shipping fees. Integrates with the checkout module for seamless order processing.

5.3.4 Order Management Module

Handles the processing of orders, including order placement, payment processing, and order fulfillment. Manages order status, tracking information, and delivery updates. Provides order history and tracking for users to view past and current orders.

5.3.4 Review and Rating Module

Allows users to leave reviews and ratings for products they have purchased. Displays average ratings and reviews on product pages. Moderate reviews to ensure they meet quality standards and are not fraudulent.

5.4 Data Flow

The data flow in Bliss Basket starts with users interacting with the frontend interface, where they can browse products, add items to their shopping cart, and proceed to checkout. When a user adds items to the cart, the Shopping Cart Module updates the cart's contents and calculates the total cost. Upon checkout, the Order Management Module processes the

order, including payment processing and updating the order status. The User Management Module manages user authentication and authorization throughout the process. The Review and Rating Module allows users to leave reviews and ratings for products, which are then displayed on the product pages. The Search and Filter Module enables users to search for products based on keywords, categories, and filters, interacting with the Product Catalog Module to retrieve relevant product information. Overall, the data flows smoothly through the various modules of Bliss Basket, ensuring a seamless shopping experience for users.

5.5 User Interface

The user interface of Bliss Basket is designed to be intuitive, visually appealing, and user-friendly, providing a seamless shopping experience for users. The interface features a clean and modern design, with a focus on easy navigation and accessibility. The homepage showcases featured products and promotions, inviting users to explore the product catalog. Each product page displays detailed information, including images, descriptions, prices, and reviews, allowing users to make informed purchasing decisions. The shopping cart and checkout process are streamlined and easy to use, with clear steps and prompts to guide users through the purchase process. Overall, the user interface of Bliss Basket is designed to enhance the shopping experience, making it enjoyable and hassle-free for users.

5.6 Use Cases

The use case of Bliss Basket, an online e-commerce website, revolves around providing a seamless shopping experience for users. A typical use case begins with a user browsing the product catalog, which includes various categories and filtering options. The user can then view product details, add items to their shopping cart, and proceed to checkout. During checkout, the user provides shipping information and selects a payment method. The system processes the order, generates an order confirmation, and notifies the user of the order status. Users can also leave reviews and ratings for products they have purchased, contributing to the overall shopping experience. Additionally, the system provides administrative functions for managing products, orders, and user accounts, ensuring smooth operation of the e-commerce platform.

5.7 Flow Chart

The flowchart for Bliss Basket, an online e-commerce website, outlines the key steps involved in the user journey from browsing products to completing a purchase. The flow begins with the user accessing the website and browsing the product catalog. From there, the user can add products to their shopping cart and proceed to checkout. During checkout, the user enters their shipping information and selects a payment method. Once the order is confirmed, the system processes the payment and sends a confirmation email to the user. After the order is processed, the user can track the status of their order and view their order history. The flowchart also includes loops and decision points, such as handling out-of-stock items or applying discounts, to accommodate various scenarios that may occur during the shopping process.

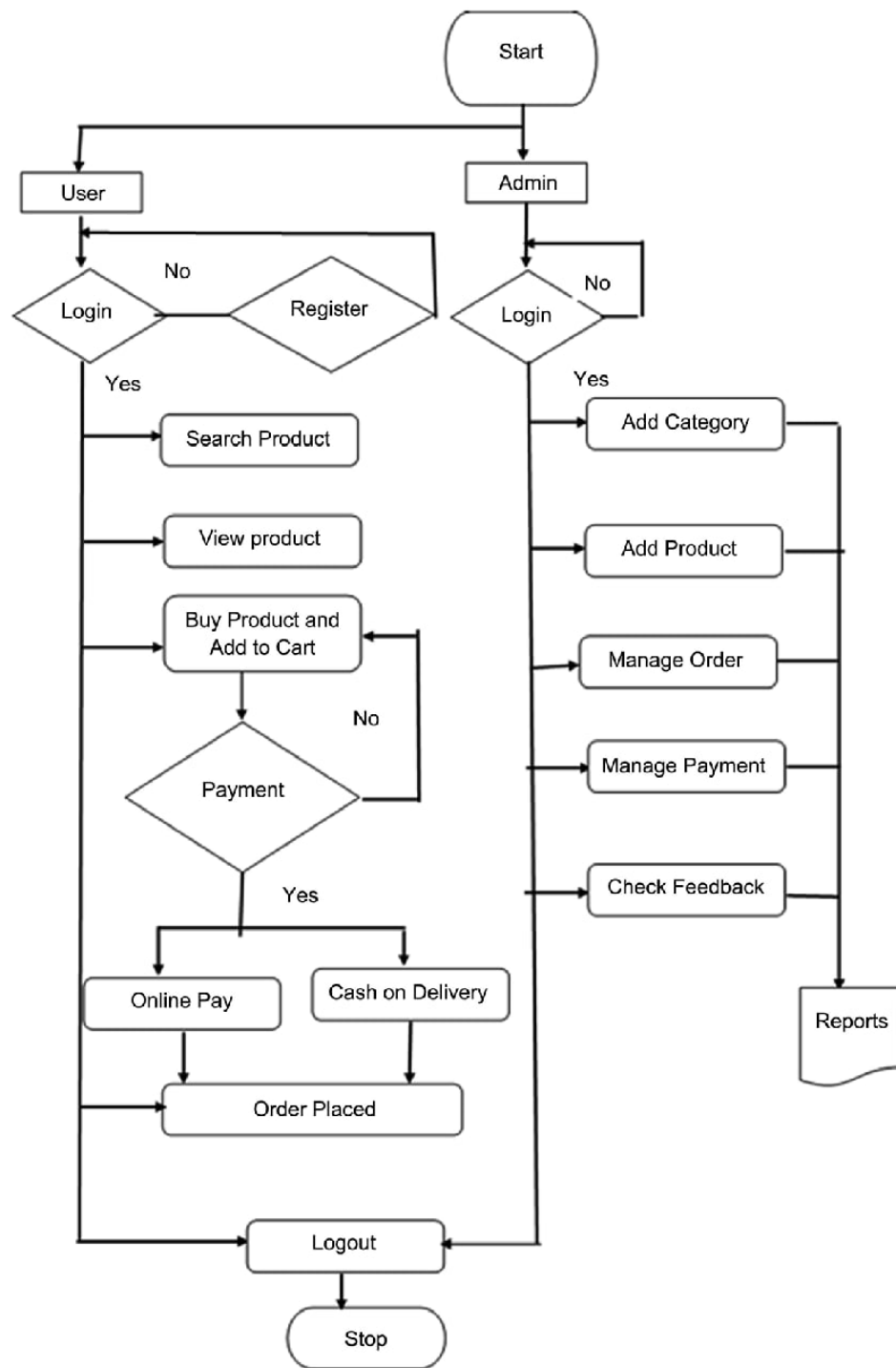


Fig. 5.1 Flowchart

The system architecture is visually represented through a comprehensive diagram, illustrating the flow of information between modules. This visual aid enhances the understanding of the intricate relationships between modules and their interactions.



Fig. 5.5 system diagram

5.9 Conclusion

In conclusion, the system design for Bliss Basket is a comprehensive framework that integrates various modules to create a seamless and efficient e-commerce platform. By dividing the system into modules such as user management, product catalog, shopping cart, order management, review and rating, search and filter, content management, and reporting and analytics, Bliss Basket can provide a user-friendly experience for its customers while ensuring reliability, scalability, and security. The flowchart illustrates the user journey through the website, from browsing products to completing a purchase, highlighting the key steps and decision points. Overall, the system design aims to meet the objectives of Bliss Basket by providing a robust and feature-rich e-commerce platform that enhances the shopping experience for its users.

CHAPTER 6

PROJECT PROCESS

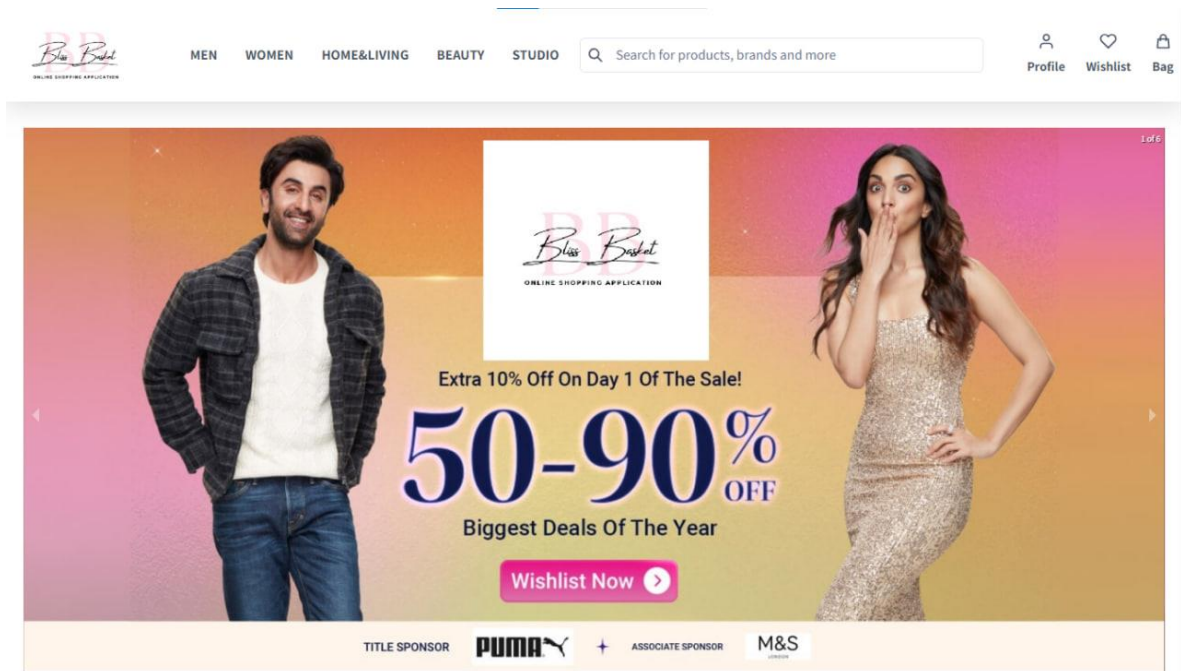


Fig 5.1 Home Page

Introduction:

- The home page of Bliss Basket welcomes visitors with an enticing display of featured like options for choose different categories, search option also shown on home page, Wishlist, Bag, Profile etc.
- Bliss Basket tailors its home page to each visitor's preferences and browsing history. And personalized recommendations based on past interactions and shopping behaviors.

Search Tab:

- Instantly locate desired items by typing keywords or product names into the search tab.
- View product prices directly within the search results for easy comparison.

- Access detailed information such as descriptions and availability alongside the price.

Profile:

- Here, users can log in or sign up easily, with the OTP functionality for new signups.
- Users can log out from their account and order tracking and available offers.

Bag & Wishlist:

- Wishlist Functionality: Save favorite products for future reference and easy access, ensuring they're remembered for subsequent visits.
- Shopping Bag: Store desired items for purchase, allowing users to proceed to check out and make payments conveniently.

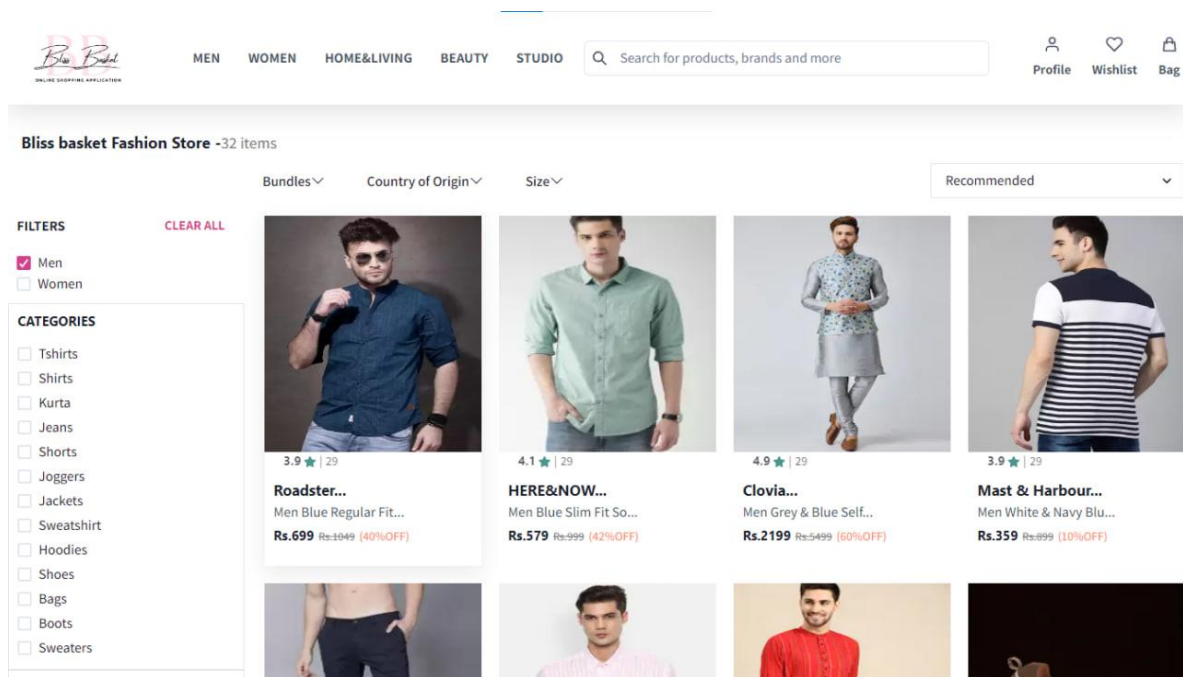


Fig 6.2 Men Filter (Home Page)

Filters:

- Users can filter options to specifically view products for men on Bliss Basket, ensuring they find items tailored to their preferences.
- It should also be able to select the Women and clear all the applied filters.

- It can be mentioned the recommended option there you should can change the priority for the products.
- Also, here you can able to select the size of the product.

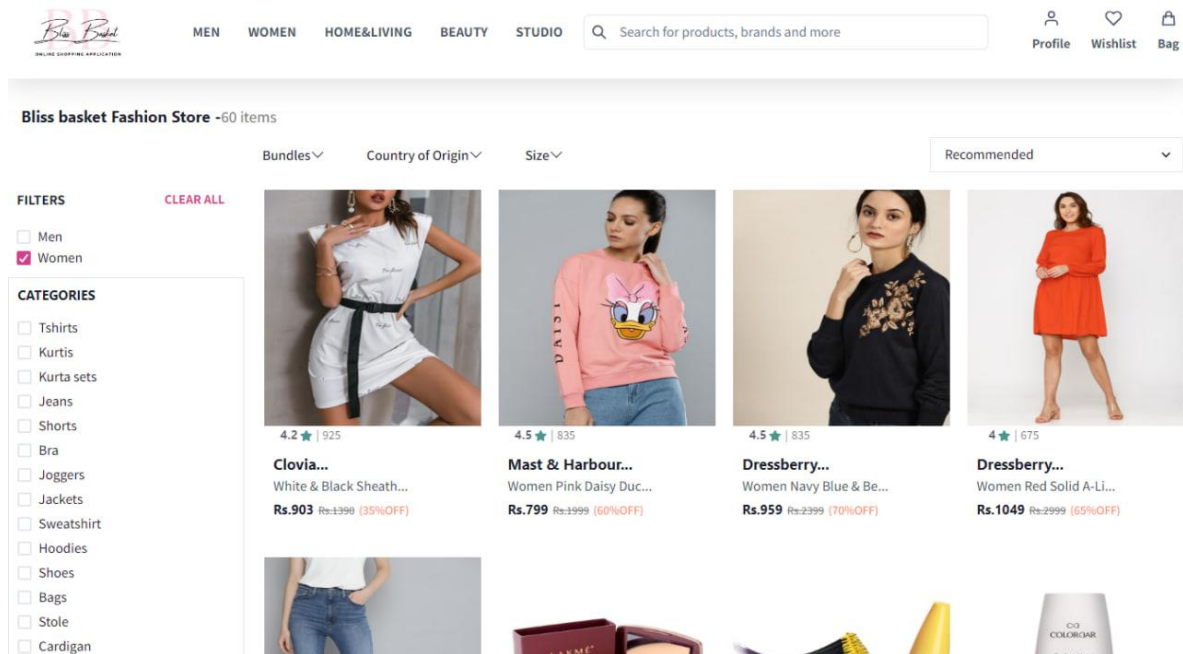


Fig 6.3 Filter page

Categories:

- In the above categories have mentioned different types of categories that are recommended to you for your choice.
- You can apply one by one the given categories according to their priorities.

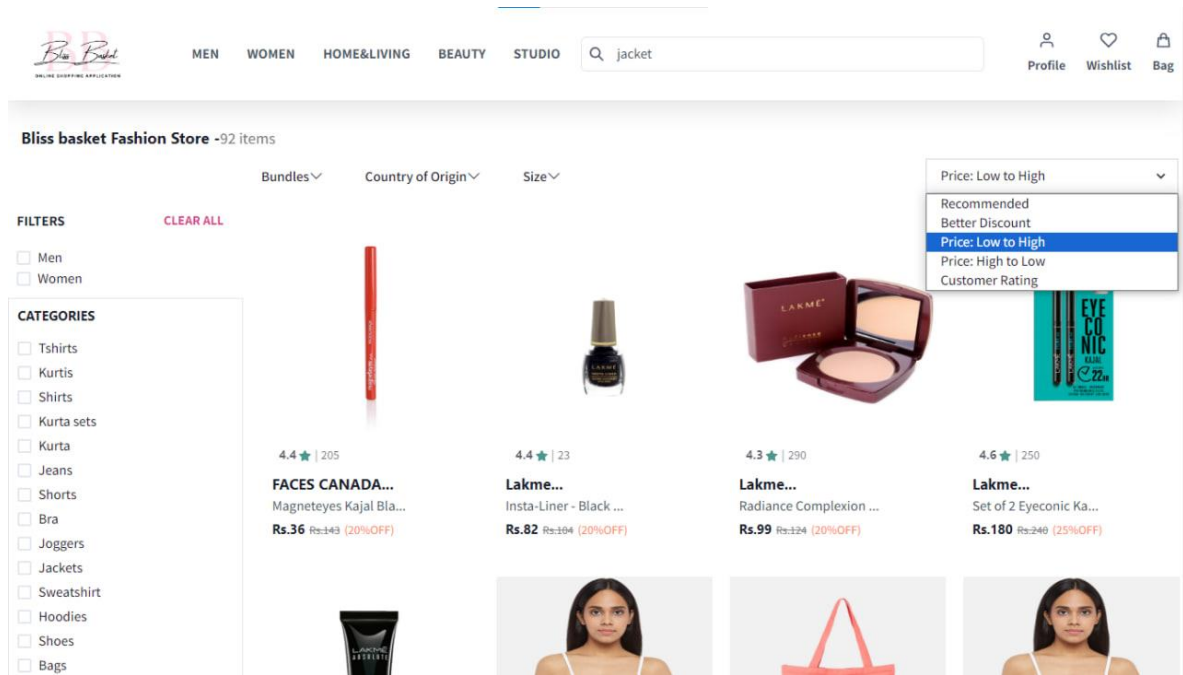


Fig 6.4 recommendation

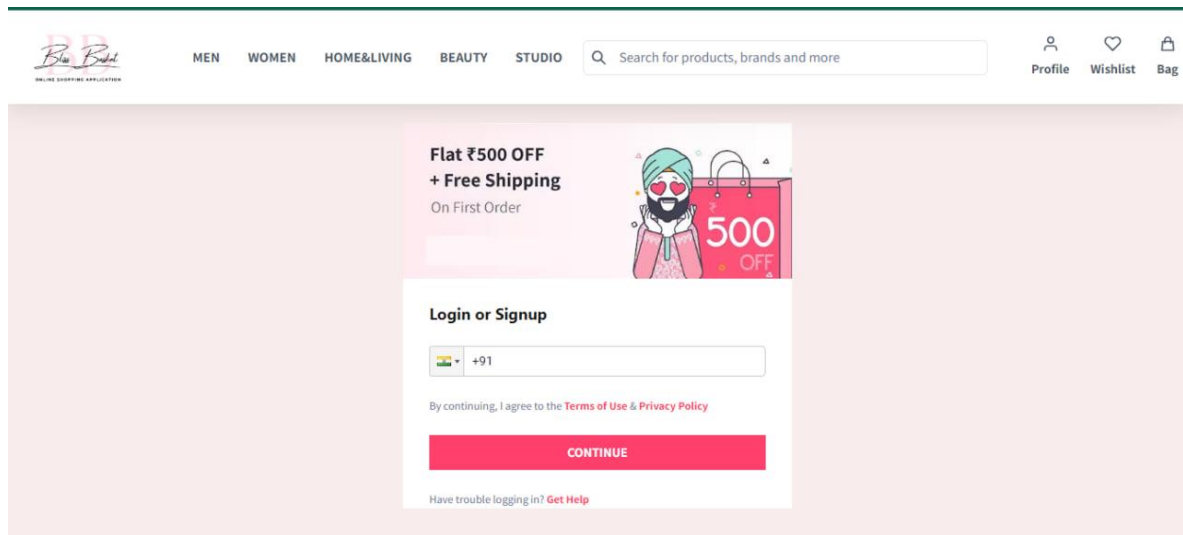


Fig 6.5 Login Page

Login:

- Users navigate to the profile button and select the login button under the profile on the header to initiate the login process.

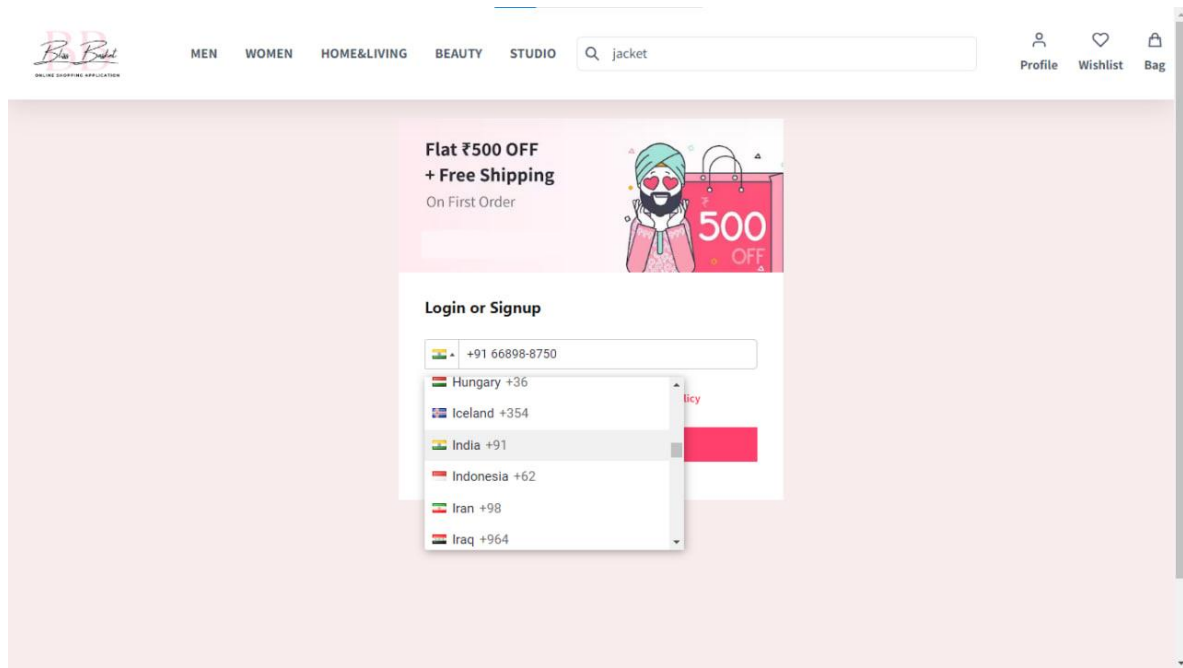


Fig 6.6 Login Page

Login Process:

- Users choose their country flag, automatically populating the starting number.
- Users input their mobile number and proceed by clicking "Continue".

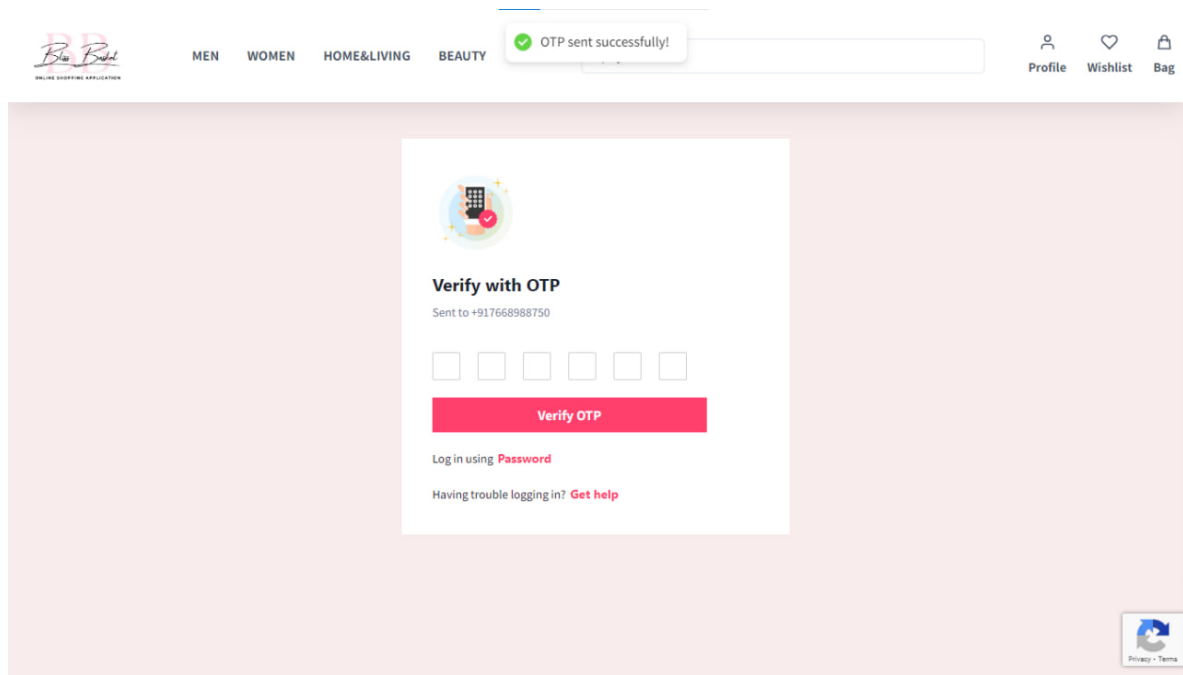


Fig 6.7 OTP Page

OTP Verification:

- An OTP is sent to the user's mobile number for verification.
- Users enter the received OTP on the screen.

Login Successful:

- Upon OTP verification, users gain access to the website.
- It can be able to buy their products from the website also make payment.

Functionality:

- It can be able to use the login with password.
- If it has any concerns for regarding the login, it can be able to take help from the support side.

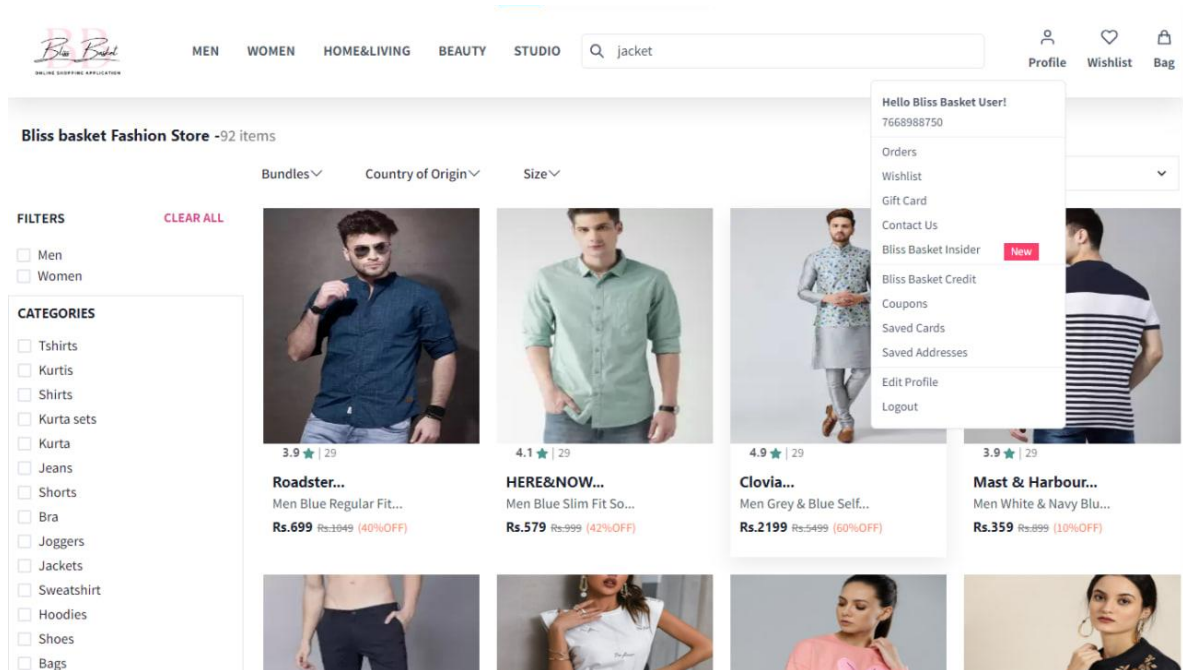


Fig 6.8 Profile Section

Viewing Personal Details:

- Users can access and review all their personal information within the profile section.

Checking Order History:

- Users can view a comprehensive history of all their past orders.

Managing Wishlist:

- Access and manage items saved to the Wishlist for future reference.

Choosing Gift Cards:

- Users have the option to select and purchase gift cards for themselves or others.

Contacting Customer Service:

- Users can easily reach out to customer support for assistance with inquiries or issues.

Exploring New Offers:

- Access exclusive offers and promotions within the Bliss Basket Insider section.

Checking Available Credits:

- Users can view their available Bliss Basket credits for future purchases.

Generating Coupons:

- Users have the ability to generate and redeem coupons for discounts on purchases.

Managing Saved Cards:

- Access and manage saved payment methods for faster checkout.

Saving Addresses:

- Users can save multiple addresses for convenient order delivery options.

Choosing Order Times:

- Users have the flexibility to select preferred delivery or pickup times for their orders.

Editing Profile Information:

- Users can update and edit their profile details as needed.

Logging Out:

- Easily log out from the profile section for account security.

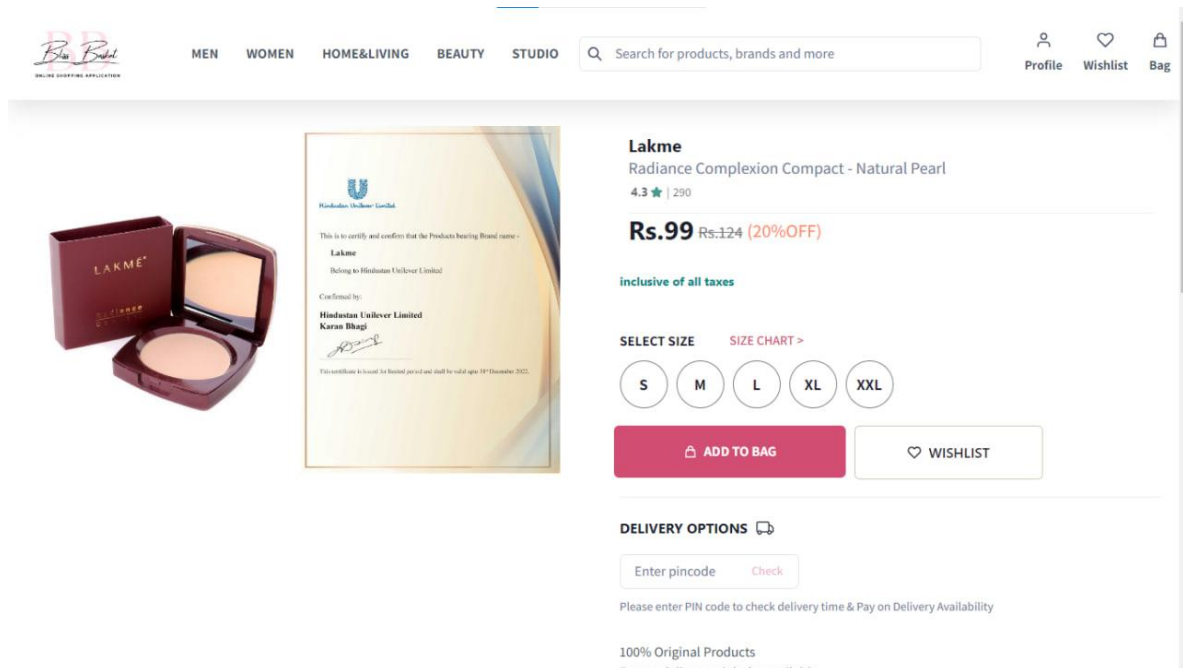


Fig 6.9 Card Screen

Product Details Overview:

Viewing Product Information:

- Users can see the product image, name, and price displayed prominently.

Selecting Product Size:

- Users have the option to choose from available sizes such as small, medium, large, and extra-large.

Adding to Bag and Wishlist:

Adding to Bag:

- Users can click on "Add to Bag" to add the product to their shopping bag for purchase.
- Alternatively, users can click on the Wishlist icon to save the product for later consideration.

Delivery Options:

Viewing Delivery Options:

- Users can check available delivery options by entering their pincode or selecting their location.

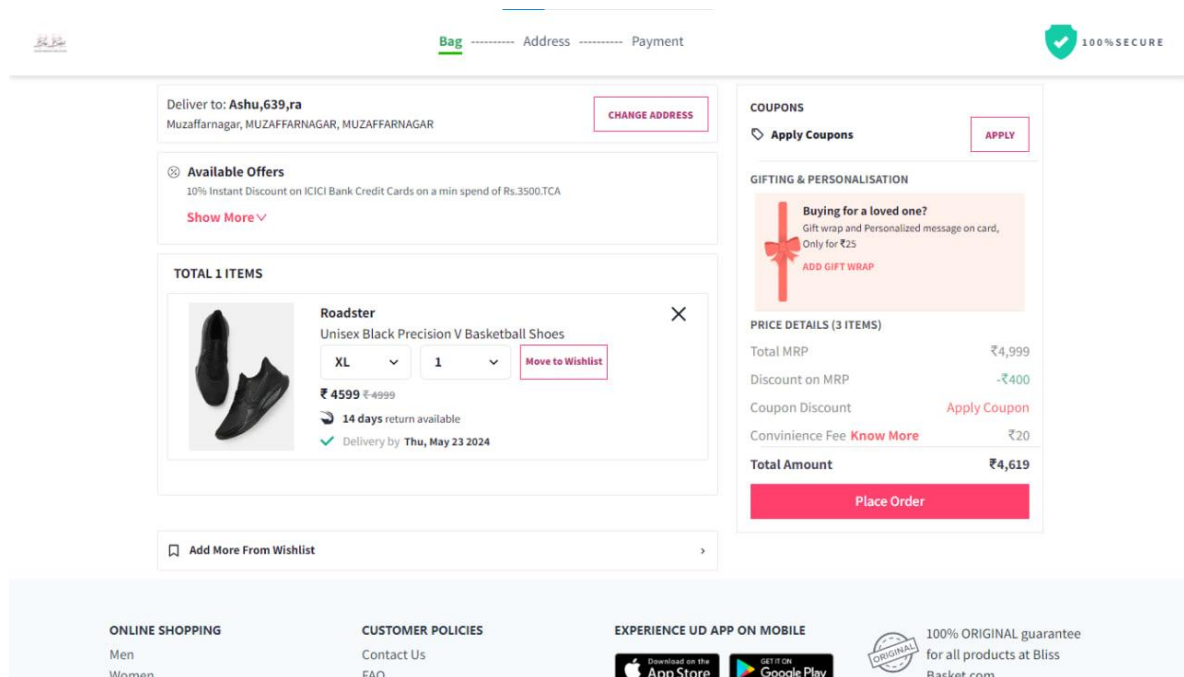


Fig 6.10 Bag Page

Address Modification:

- Users can change existing addresses or add new ones for delivery.
- It can be using previous address that can be saved.

The screenshot displays the 'Address Modification' screen within an e-commerce application. At the top, a progress bar shows 'Bag', 'Address' (highlighted), and 'Payment'. A '100% SECURE' badge is visible in the top right corner. The main section is titled 'Select Delivery Address' and includes an 'ADD NEW ADDRESS' button. Under 'OTHER ADDRESSES', a single address is listed for 'Ashu' (marked as 'HOME') in Muzaffarnagar, Uttar Pradesh, with a mobile number and a 'Pay on Delivery available' option. Below this are 'REMOVE' and 'MAKE DEFAULT' buttons. To the right, a 'DELIVERY ESTIMATES' section shows an estimated delivery date of 'Thu, May 23 2024'. Below that, 'PRICE DETAILS (3 ITEMS)' are shown: Total MRP (₹4,999), Discount on MRP (-₹400), and Convenience Fee (₹20), leading to a 'Total Amount' of ₹4,619 and a 'Continue' button. At the bottom, a dashed box contains a '+Add New Address' link. The footer includes links for 'ONLINE SUPPORT', 'CUSTOMER POLICIES', and 'EXPERIENCE US APP ON MOBILE'.

Bag ----- Address ----- Payment

100% SECURE

Select Delivery Address

ADD NEW ADDRESS

OTHER ADDRESSES

Ashu HOME

Muzaffarnagar
MUZAFFARNAGAR, MUZAFFARNAGAR, Uttar Pradesh - 639,ra
Mobile : 8786564341

• Pay on Delivery available

REMOVE MAKE DEFAULT

DELIVERY ESTIMATES

Estimated delivery by Thu, May 23 2024

PRICE DETAILS (3 ITEMS)

Total MRP	₹4,999
Discount on MRP	-₹400
Convenience Fee Know More	₹20
Total Amount	₹4,619

Continue

+Add New Address

ONLINE SUPPORT CUSTOMER POLICIES EXPERIENCE US APP ON MOBILE

Fig 6.11 Address Screen

Applying Coupons and Gift Cards:

- Users have the option to apply coupons and gift cards to avail discounts during checkout.

Viewing and Applying Offers:

- Users can view and apply available offers to their order for additional savings.

Selecting Item Details:

- Users can specify item size and quantity according to their preferences.

Moving Wishlist Items:

- Users can manage their Wishlist, either by removing items or moving them to the shopping bag.

The screenshot displays the checkout page with a progress bar at the top indicating 'Bag', 'Address', and 'Payment' (the current step). A '100% SECURE' badge is visible in the top right corner.

Bank Offers: 10% Instant Discount on ICICI Bank Credit Cards on a min spend of Rs.3500.TCA. [show more](#)

Payment Info

☆ For the next slide use card number as:-

Card Number :- 4111 1111 1111 1111

Expiry :- Any expiry which exceeds the current date (e.g. 11/25)

Enter random 3 digit number (e.g. 359)

And for OTP in the next slide enter a random 4 digit number

[Have a Gift Card?](#) [APPLY GIFT CARD](#)

DELIVERY ESTIMATES

Estimated delivery by **Thu, May 23 2024**

PRICE DETAILS (3 ITEMS)

Total MRP	₹4,999
Discount on MRP	-₹400
Convenience Fee Know More	₹20
Total Amount	₹4,619

[Pay Now](#)

ONLINE SHOPPING

- Men
- Women
- Kids
- Home & Living
- Beauty
- Gift Cards
- Bliss Basket Insiders

CUSTOMER POLICIES

- Contact Us
- FAQ
- T&C
- Terms Of Use
- Track Orders
- Shipping
- Cancellation

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KEEP IN TOUCH

[f](#) [t](#) [y](#) [i](#)

100% ORIGINAL guarantee for all products at Bliss Basket.com

14 Return within 14 days of receiving your order

Fig 6.12 Place order

Price and Delivery Information:

- Users can view item prices, delivery dates, as well as any applicable discounts, taxes, and the total order amount displayed on the right side of the checkout page.

View Discounts and Taxes:

- The site displays all applicable discounts on the order.
- Any taxes added to the total are clearly itemized.

Review Total Amount:

- The total amount, including discounts and taxes, is prominently shown.
- Ensure all details are correct before proceeding.

Place Order:

- Click the "Place Order" button to finalize your purchase.
- A confirmation message will appear, indicating your order has been placed successfully.

Transparent Pricing: Easily see how discounts and taxes affect your total.

User-Friendly Interface: Navigate seamlessly from reviewing your order to placing it.

Instant Confirmation: Receive immediate confirmation upon placing your order.

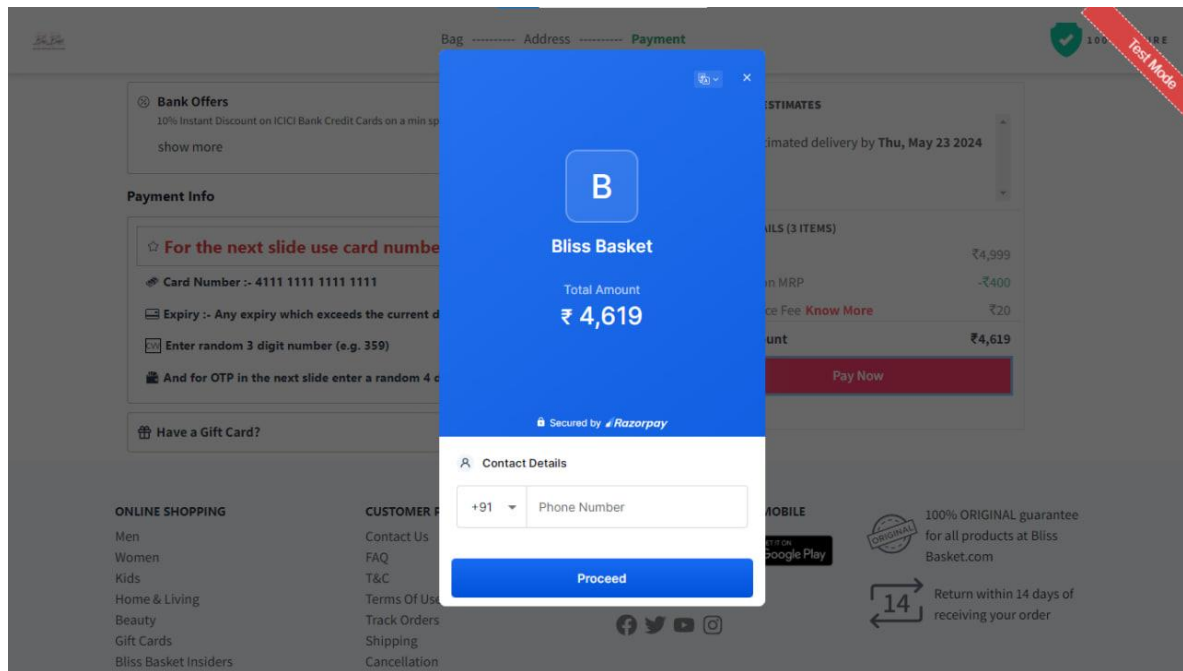


Fig 6.13 Payment Screen

Enter Mobile Number:

- After placing the order, you will be prompted to enter your mobile number.
- This step is necessary to proceed with the payment process.

View Total Amount:

- The total amount to be paid is displayed, including all discounts and taxes.

Select Payment Method:

- Various payment options are available for your convenience:
- **UPI:** Proceed with a QR code for payment.
- **Card:** Pay using credit or debit cards.
- **Net Banking:** Use your bank's online service.
- **Wallet:** Choose from supported digital wallets.
- **Pay Later:** opt for a pay later service if available.

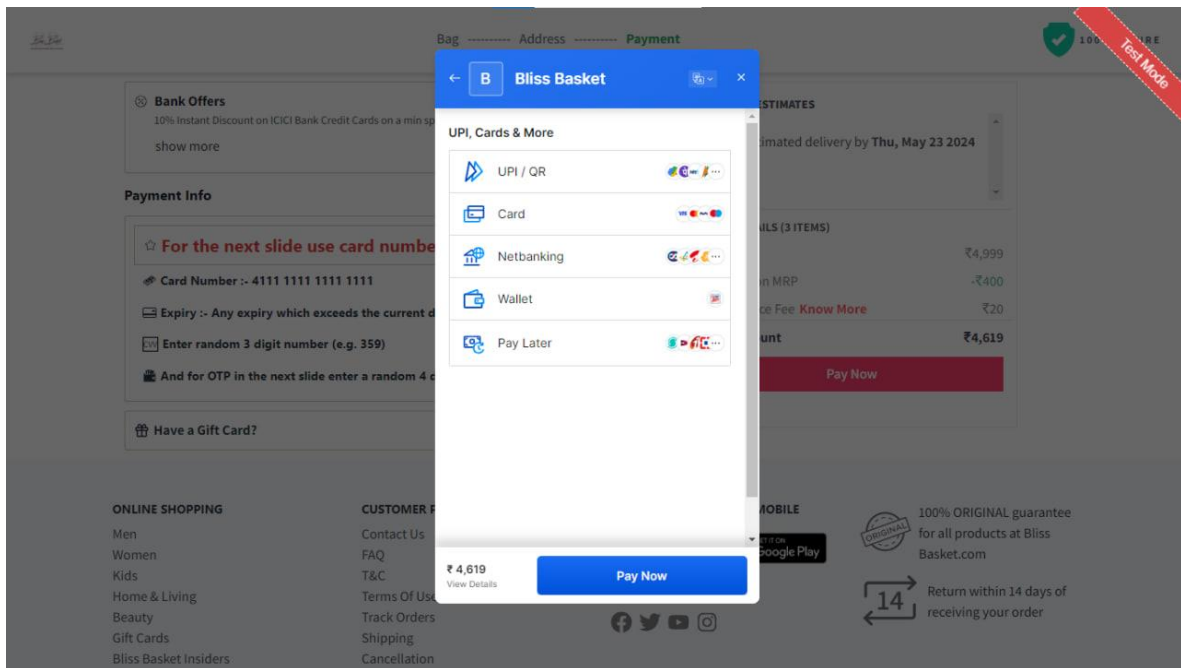


Fig 6.14 Payment Options

Complete Payment

- After selecting a payment method, follow the prompts to complete the transaction.
- For UPI, scan the QR code with your UPI app.
- For other methods, enter the necessary details as prompted.

Order Confirmation

- Once payment is successful, a confirmation message will indicate your order has been placed.
- Mobile Verification: Ensures secure and personalized payment process.

Payment Process Overview

- Payment processing initiates upon completion of the payment.
- A confirmation message indicating successful payment will be displayed on the screen.
- Once payment is confirmed, an email receipt will be sent to the provided email address.

Order Placement Confirmation:

- Your order will be placed once the payment process is successfully completed.
- A confirmation Pop up will be show to you shortly after placement.

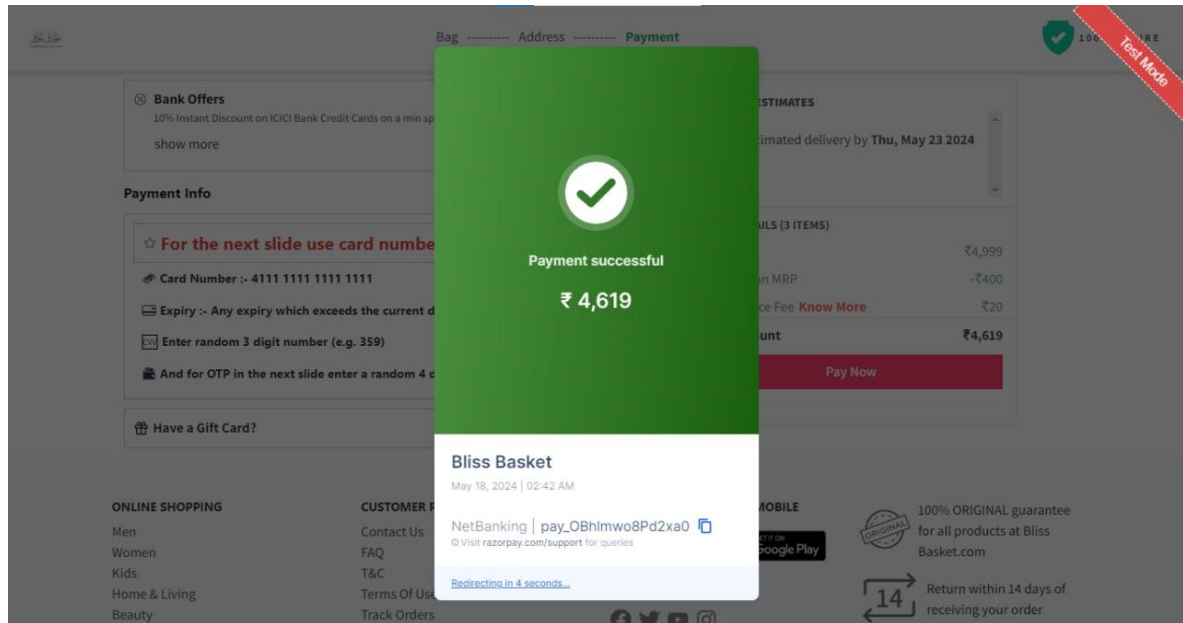


Fig 6.15 payment Status

Order status:

- Your order should be placed and it will show now on the order screen. Their you can see your all placed orders that you can placed previously too.

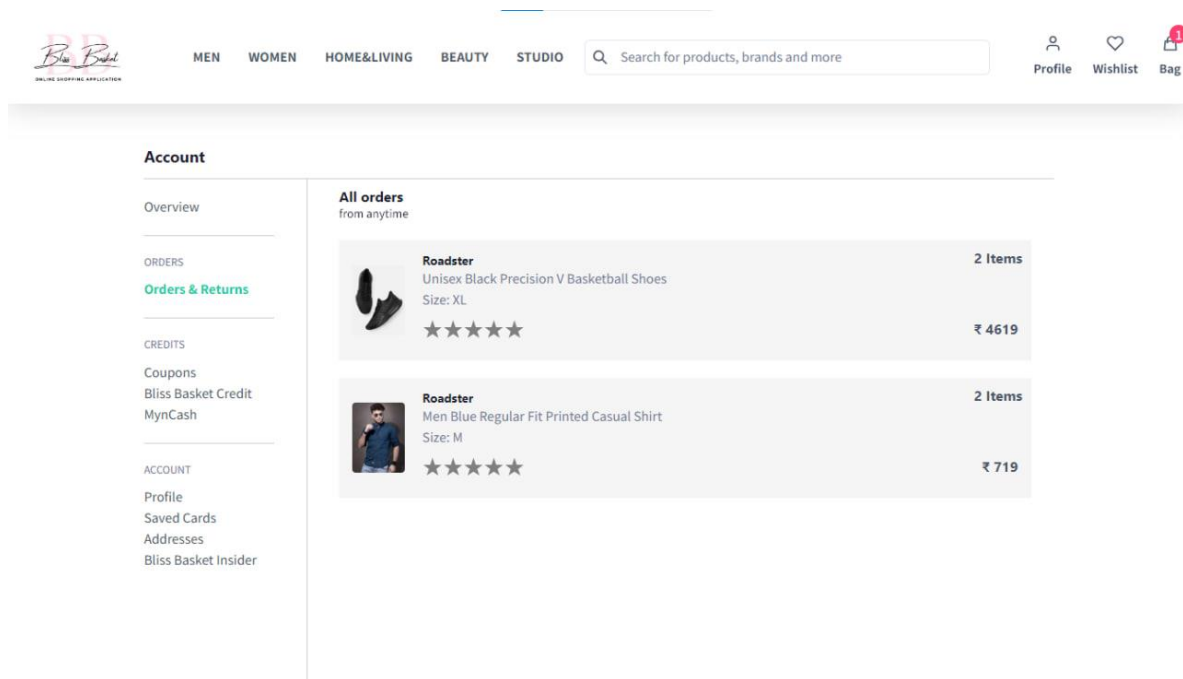


Fig 6.16 Order Screen

Order Management

- Access all created orders with detailed information including price, quantity, and items.

Rating System:

- Provide a rating system to assign stars to specific orders based on user experience and satisfaction.
- Incorporate a module for easy order returns, facilitating a seamless and efficient process for customers.

CHAPTER 7

TESTING

The testing phase of Bliss Basket, an online shopping platform, was conducted to ensure its functionality, usability, security, and performance. The testing process involved unit testing, integration testing, system testing, and user acceptance testing (UAT). Unit testing was performed on individual components to verify their functionality and ensure they meet the specified requirements. Integration testing was then conducted to test the interaction between these components and identify any issues that may arise from their integration. System testing was carried out to evaluate the system as a whole, focusing on its ability to meet user requirements, perform under various conditions, and remain secure. UAT involved real users testing the system to ensure it meets their expectations and is user-friendly. Additionally, performance testing was conducted to assess the platform's responsiveness and stability under different load conditions. Security testing was also performed to identify and mitigate any vulnerabilities that could compromise user data. Overall, the testing phase of Bliss Basket was successful in ensuring the platform's functionality, usability, security, and performance, thus preparing it for a successful launch and providing users with a seamless shopping experience.

Component	Description	Test Case	Expected Result	Actual Result	Pass/Fail
User Registration	Verify user can register successfully	Enter valid user details	User is registered successfully	User is registered successfully	Pass
	Verify user cannot register with invalid data	Enter invalid user details	User is not registered	User is not registered	Pass
Product Search	Verify search returns relevant results	Search for a product by name	Relevant products are displayed	Relevant products are displayed	Pass
	Verify search handles misspelled queries	Search for a misspelled product name	Corrected product name is suggested	Corrected product name is suggested	Pass
Cart Management	Verify user can add items to cart	Add a product to the cart	Product is added to the cart	Product is added to the cart	Pass
	Verify user can remove items from cart	Remove a product from the cart	Product is removed from the cart	Product is removed from the cart	Pass
Payment Gateway	Verify payment process is secure	Proceed to checkout and enter payment info	Payment is processed securely	Payment is processed securely	Pass
	Verify payment process is successful	Complete payment process	Payment is successful	Payment is successful	Pass

TABLE 7.1 UNIT TESTING

Test case 1:

If we search wrong item and enter wrong text then it will show this screen.

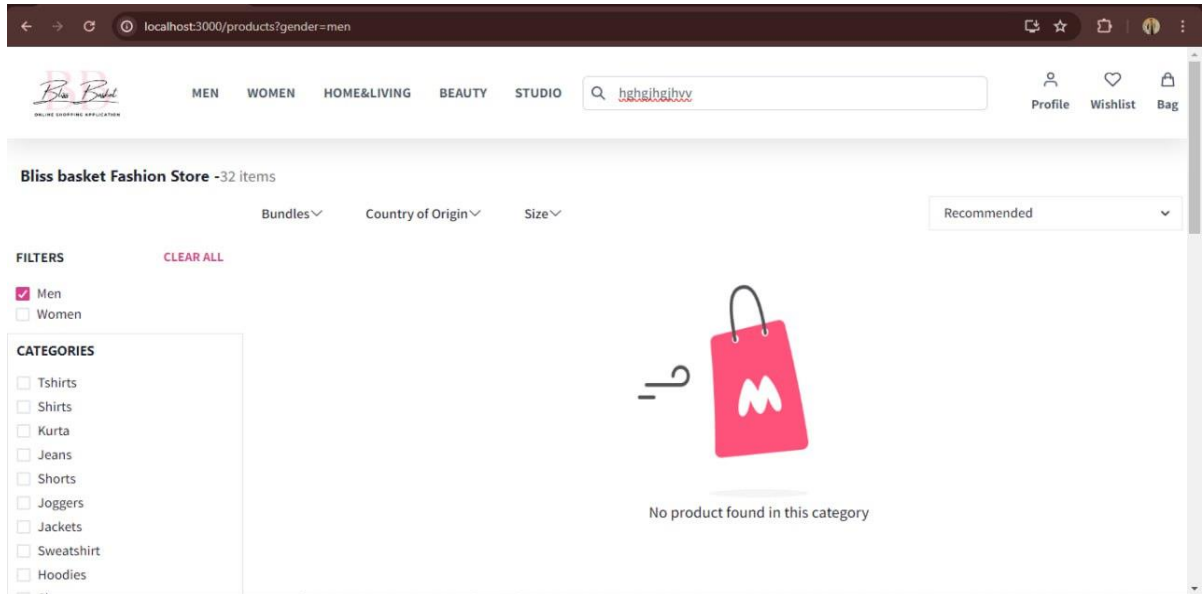


Fig. 7.1 Test Case 1

Test case 2:

If we enter wrong number the firebase error message will be displayed as popup.

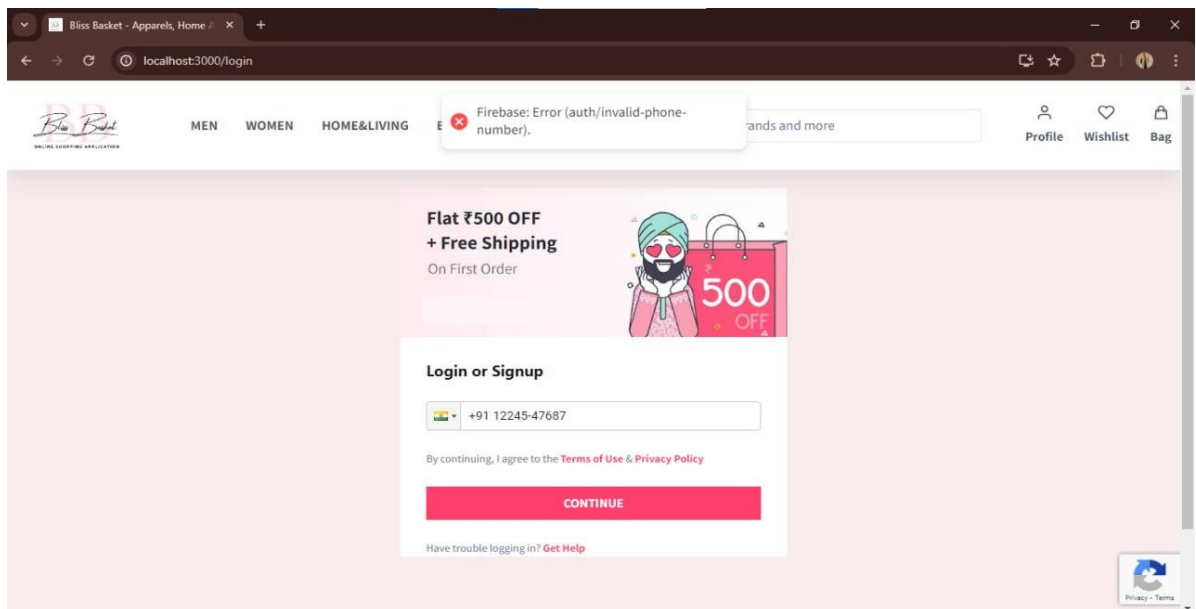


Fig. 7.2 Test Case 2

Test case 3:

If we enter wrong otp then it will show an error.

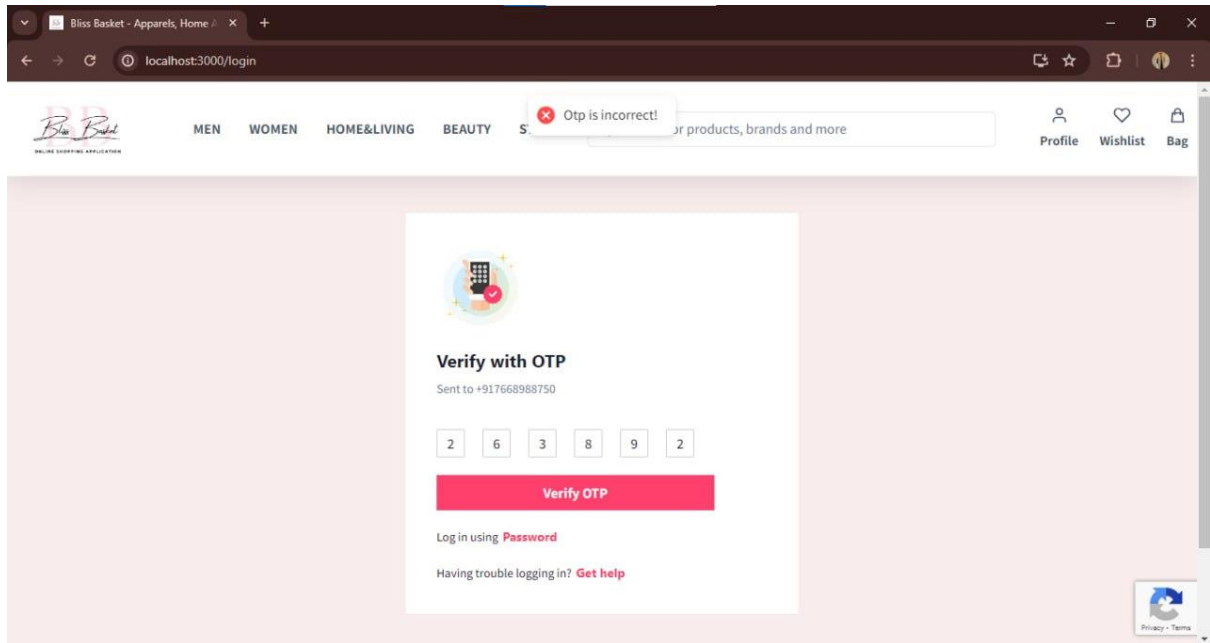


Fig. 7.3 Test Case 3

Test case 4:

If we don't select a particular size of the product, then it will be showing an popup

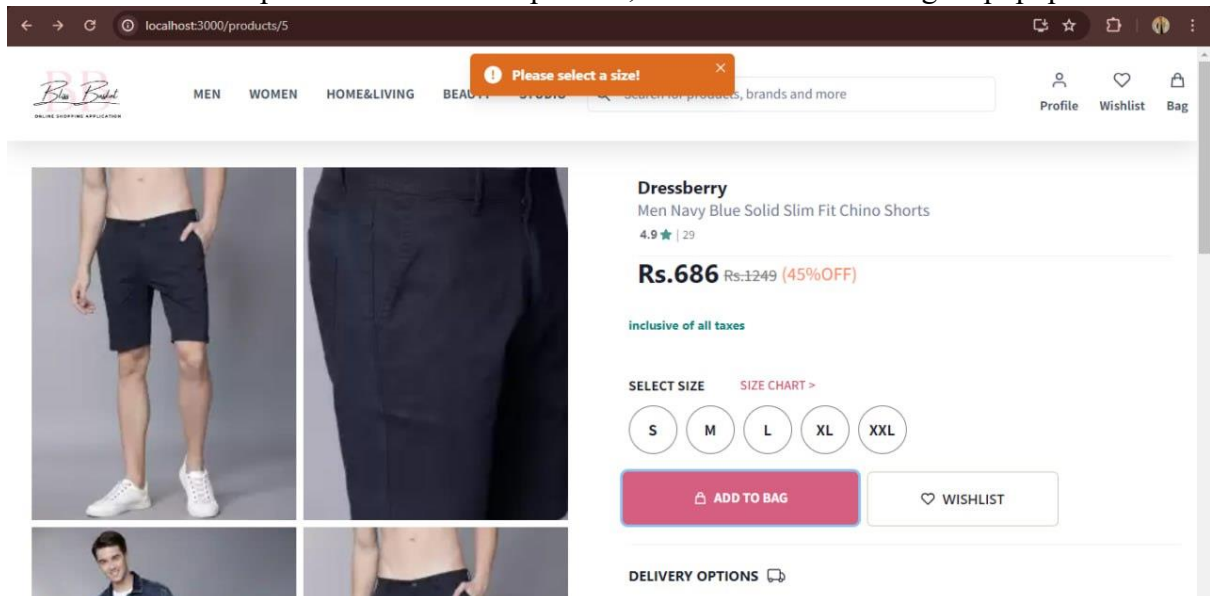


Fig. 7.4 Test Case 4

Test case 5:

If we enter wrong details for the payment, then it will give you an option of the retry payment.

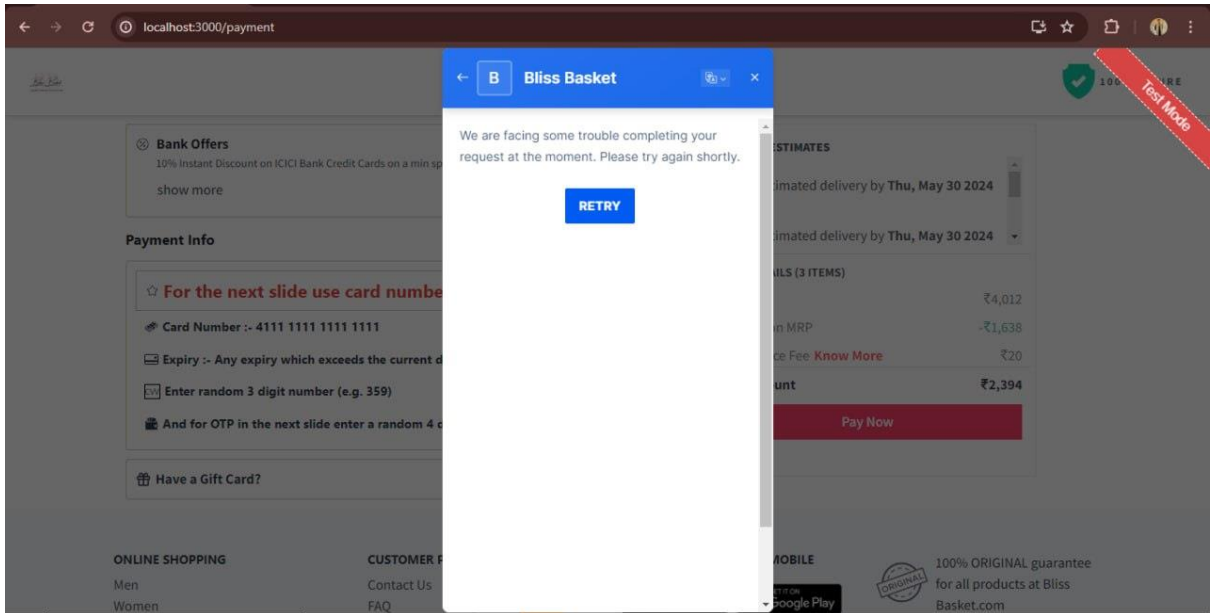


Fig. 7.5 Test Case 5

Test case 6:

If a network connection issue is faced then it should be generated a payment failed error.

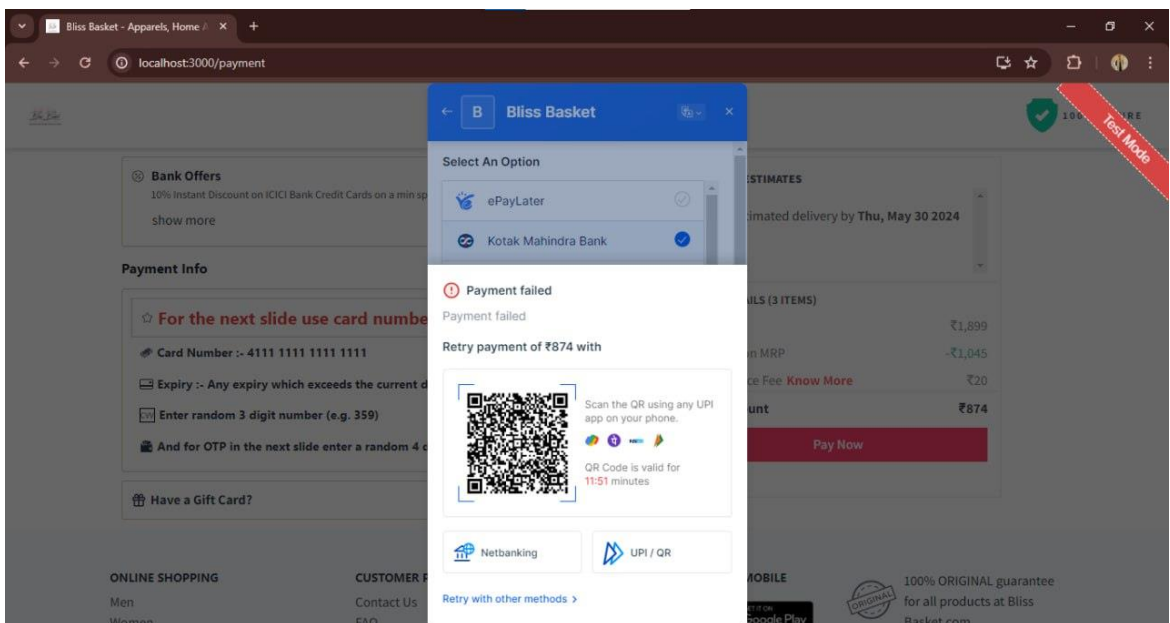


Fig. 7.6 Test Case 6

CHAPTER 8

MAINTAINENCE AND FUTURE SCOPE

Bliss Basket, an innovative online shopping platform, requires a robust maintenance module to ensure its seamless operation and continuous improvement. The maintenance module is crucial for identifying and resolving issues, updating features, and enhancing user experience. This report outlines the key components and strategies of the maintenance module for Bliss Basket.

7.1 Maintenance Objectives

The primary objective of the maintenance module is to ensure the smooth functioning of Bliss Basket. This includes:

1. Bug Fixing: Identifying and fixing software bugs to maintain system stability.
2. Feature Updates: Updating existing features and adding new features to meet user demands and market trends.
3. Performance Optimization: Optimizing the platform's performance to enhance speed and efficiency.
4. Security Updates: Implementing security patches and protocols to protect user data and ensure a secure shopping environment.
5. Database Management: Managing the database to ensure data integrity and efficient data retrieval.
6. User Feedback Incorporation: Incorporating user feedback to improve the platform's usability and features.

7.2 Maintenance Strategies

1. **Regular Monitoring:** Continuous monitoring of the platform's performance, user feedback, and market trends to identify areas for improvement.
2. **Proactive Issue Identification:** Using automated tools and manual checks to identify and address potential issues before they impact users.
3. **Scheduled Maintenance:** Regularly scheduled maintenance windows to perform updates, upgrades, and database optimizations.
4. **User Communication:** Transparent communication with users about maintenance activities, scheduled downtimes, and new features.
5. **Testing:** Thorough testing of updates and new features in a staging environment before deployment to ensure they do not introduce new issues.
6. **Data Backup:** Regularly backing up user data and system configurations to prevent data loss during maintenance activities.

7.3 Maintenance Process

1. **Issue Identification:** Users and automated monitoring tools report issues to the maintenance team.
2. **Issue Prioritization:** The maintenance team prioritizes issues based on severity and impact on user experience.
3. **Issue Resolution:** The team resolves issues through bug fixing, feature updates, or performance optimizations.
4. **Testing:** After resolving an issue, the team thoroughly tests the fix to ensure it does not introduce new issues.
5. **Deployment:** Once tested, the fix is deployed to the live environment during scheduled maintenance windows.

The maintenance module is a critical component of Bliss Basket's operations, ensuring its reliability, security, and user satisfaction. By implementing proactive maintenance strategies and a systematic maintenance process, Bliss Basket can continuously improve its platform and stay competitive in the online shopping market.

7.4 Future look

The future of Bliss Basket as an online shopping platform looks promising, with several key trends and developments shaping the e-commerce landscape. One of the most significant trends is the continued growth of mobile shopping. As smartphones become more ubiquitous and internet access becomes more affordable, mobile commerce is expected to account for an increasing share of online retail sales. Bliss Basket is well-positioned to capitalize on this trend by ensuring a seamless and intuitive mobile shopping experience for its users.

Another important trend is the rise of artificial intelligence (AI) and machine learning (ML) in e-commerce. These technologies can be leveraged to further personalize the shopping experience, improve product recommendations, and optimize pricing strategies. Bliss Basket can incorporate AI and ML algorithms to enhance its recommendation system, providing users with tailored product suggestions based on their preferences and browsing history.

Furthermore, the integration of augmented reality (AR) and virtual reality (VR) technologies holds great potential for online shopping platforms. These technologies can enable users to visualize products in their own space before making a purchase, enhancing the shopping experience and reducing the likelihood of returns. Bliss Basket can explore the implementation of AR and VR features to create a more immersive and interactive shopping experience for its users.

Overall, Bliss Basket has a bright future ahead, with opportunities to leverage emerging technologies and trends to enhance its offering and solidify its position in the competitive e-commerce market.

CHAPTER 9

LITERATURE REVIEW

In the past decade, the landscape of retail has undergone a significant transformation with the advent of online shopping platforms. These platforms have revolutionized the way consumers shop, offering convenience, variety, and personalized experiences. As such, understanding the key factors that influence the success of online shopping platforms has become crucial for businesses seeking to thrive in the digital marketplace.

User Experience in Online Shopping

User experience (UX) plays a pivotal role in the success of online shopping platforms. A seamless, intuitive, and engaging user interface can significantly enhance user satisfaction and retention. Studies have shown that factors such as website design, navigation, search functionality, and checkout process are critical determinants of user experience (Hassanein & Head, 2007). Additionally, personalization features, such as product recommendations based on user behavior and preferences, can further enhance the shopping experience (Mobasher et al., 2000).

Technological Advancements

Technological advancements have played a key role in shaping the evolution of online shopping platforms. The use of artificial intelligence (AI) and machine learning (ML) algorithms has enabled platforms to offer personalized recommendations, optimize pricing strategies, and improve customer service (Chen et al., 2018). For example, AI-powered chatbots can provide real-time assistance to users, enhancing their shopping experience (Turban et al., 2020).

Furthermore, the use of big data analytics has enabled online retailers to gain valuable insights into consumer behavior, preferences, and trends. This data-driven approach has helped businesses optimize their marketing strategies, inventory management, and product offerings (Chen et al., 2018).

Security and Trust

Security and trust are paramount in online shopping platforms, as consumers are often concerned about the safety of their personal and financial information (Kim & Kim, 2017). Implementing robust security measures, such as secure payment gateways, SSL encryption, and fraud detection systems, can help build trust with consumers and protect their sensitive data (Kim & Kim, 2017).

In conclusion, online shopping platforms have become integral to the modern retail landscape, offering convenience, variety, and personalized experiences to consumers. User experience, technological advancements, security, and trust are key factors that influence the success of these platforms. By focusing on these aspects, businesses can create a competitive edge and thrive in the digital marketplace.

CHAPTER 10

CONCLUSION

The Bliss Basket project has successfully developed a state-of-the-art online shopping platform that combines advanced technology with a user-centric design to deliver an exceptional e-commerce experience. Through its intuitive interface, robust backend infrastructure, and intelligent recommendation system, Bliss Basket meets the diverse needs of modern consumers, offering a wide range of products with ease and convenience.

Key achievements of the project include the integration of secure and efficient payment gateways, real-time order tracking, and seamless third-party service connections for shipping and customer support. The use of Django for backend development has ensured a scalable and maintainable system, while modern JavaScript frameworks have enhanced the frontend experience, making it both responsive and engaging.

The focus on personalized recommendations has added significant value, helping users discover products tailored to their preferences, thereby increasing customer satisfaction and retention. Additionally, the platform's comprehensive features, such as easy returns and responsive customer support, have further solidified its commitment to user satisfaction.

In conclusion, Bliss Basket stands as a testament to the potential of combining cutting-edge technology with a deep understanding of consumer needs. The project not only meets current market demands but also sets the stage for future innovations in the e-commerce landscape, promising continuous improvement and growth.

BIBLIOGRAPHY

Books:

Flanagan, D. (2017). "JavaScript: The Definitive Guide.

" O'Reilly Media. Robson, S. (2014). "Node.js in Action.

"Manning Publications. Holmes, K. (2019).

"Learning React: Functional Web Development with React and Redux." O'Reilly Media.

Articles and Blog Posts:

"Building a Full-Stack MERN Application." FreeCodeCamp.

(<https://www.freecodecamp.org/news/how-to-build-a-full-stack-mern-application/>)

"Creating a RESTful API with Node.js and Express." Scotch.io. (<https://scotch.io/tutorials/build-a-restful-api-using-node-and-express-4>)

"Introduction to React Router." reactrouter.com. (<https://reactrouter.com/web/guides/quick-start>)

Forums and Community:

Stack Overflow.<https://stackoverflow.com/> Reddit - r/MERN. (Year).

<https://www.reddit.com/r/MERN/> MongoDB Community Forums. (Year).

<https://community.mongodb.com/>

REFERENCES

Online Documentation:

MongoDB Documentation. (<https://docs.mongodb.com/>)

Express.js Documentation. (<https://expressjs.com/>)

React Documentation. (<https://reactjs.org/docs/getting-started.html>)

Node.js Documentation. (<https://nodejs.org/en/docs/>)

Frameworks and Libraries:

Bootstrap. (<https://getbootstrap.com/>)

Redux. (<https://redux.js.org/>)

Axios. (<https://axios-http.com/>)

Mongoose. (<https://mongoosejs.com/>)