

TLCommerce: An online shopping application

BY

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This Project report has been submitted in fulfilment of the requirements for the
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APPROVAL

This Project/internship titled “TLCommerce: An online shopping application”, submitted by Md. Shibli-Uz-Zaman Khan, ID NO: 201-15-3163 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 24/1/24

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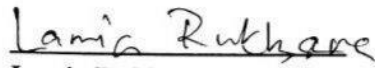
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We hereby declare that this project has been done by us under the supervision of **Ms. Tasnim Tabassum, Lecturer, Department of CSE Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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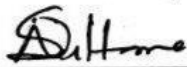
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ABSTRACT

TLCcommerce is an innovative online shopping application created to promote a thriving shopping community where people can effortlessly order their beloved items. Shopping Lovers and others are continuously looking for inspiration and connections via the joy of buying and sharing in today's connected world. This website offers users a simple interface via which they can see, order, review, and judge their favorite items. Users have access to a wide variety of products, ranging from classic family favorites to cutting-edge shopping experimentation, making it a useful tool for both customers and owners.

A thorough product database, engaging forums, and the option to follow favorite items for precious product recommendations are some of the key elements of the TLCcommerce Platform. This platform promotes the sharing of accessories expertise and the appreciation of product culture from all over the world with an emphasis on user participation and interaction.

A delectable voyage of discovery, creativity, and connection awaits you when you join our shopping community and use the TLCcommerce Application Platform.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Tucked away in Bangladesh's Country perspective, the "TLCommerce application" website is a game-changer in the shopping scene, designed specifically to change the way people buy around country. This project is more than just a technological fix; it's a shopping companion that's been carefully crafted to become a seamless part of country life, changing the way people can interact with the variety of flavors at their disposal. It was inspired by the enormous success of industry pioneers like Amazon.

In this era of technological progress, when convenience and creativity coexist, "TLCommerce" is a creative answer to the unique requirements of the product community. It captures the idea that every item becomes a journey beyond the traditional shopping product. Each order a distinct taste experiment, and each experience encounter a complement to the total lifestyle.

This project aims to blend in smoothly with the busy professional life by embodying the dynamic interplay between product culture and technology. It is more than just an app. "TLCommerce" imagines a day when placing a easy order goes beyond a simple transactional function and transforms into an immersive exploration of the diverse array of cloths found in the country region.

The app is ready to not just satisfy the Countries shopping community's demands as we set out on our desire adventure, but also to enhance and revolutionize cloth in its purest form. "TLCommerce" is a friend, a guide, and more than just a tool, and a curator of special cloth experiencing moments in the intellectual haven.

1.2 Motivation

An intricate awareness of the throbbing rhythms of Shopping life is fundamental to our inspiration. "TLCommerce" is an adaptable solution adapted to the many needs of the shopping community, from the thought-easy order systems of people life events. It acknowledges the plethora of events, the unending time restrictions, and the intrinsic need for a variety of enormous experiences on college country. Our goal is to provide a shopping experience that speaks to the complex dynamics of people life by artfully fusing convenience, flavor, and favourite.

1.3 Objectives

Within the confines of the country, "TLCommerce" outlines specific goals that are all designed to improve the shopping experience for all people.

Smooth User Interface Provide an easy-to-use interface that makes ordering product easier, enabling consumers to explore a variety of shopping options and navigate with ease.

Increase Local Cloth Visibility: By forming strategic alliances, raise awareness of local cloths in the country, and offer a forum for the encouragement and advancement of these enterprises.

Country Shopping Diversity Provides a wide variety of options for ordering, ranging from international items to traditional local specialties, to accommodate the different tastes of the shopping community.

Improved shopping Experience Go above and beyond just delivering product to improve the entire shopping experience inside the country. Incorporate various features, expertise suggestions, and a dedication to fine feeling.

Country Engagement Encourage a feeling of camaraderie among users by setting up an online forum where people may interact over their mutual love of cloth, trade advice, and discuss product adventures.

To achieve these goals, "TLCommerce" wants to be a force that unites people via their shared love of product and turns the country region into a center of varied inormous experiences.

1.4 Expected Outcome

Transformational and multifaceted outcomes are the intended outcomes of "TLCommerce" in the Country area. With more users, the app hopes to raise country shopping culture by encouraging a more sophisticated and adventurous shopping experience by encouraging people to enjoy a wide range of flavors. In addition to the purely transactional, the desired result is a vibrant community of neighborhood ecommerce platforms that will be bolstered both financially and culturally by greater exposure and assistance.

Not only user happiness but also active engagement is anticipated, where the app turns into a source of happiness for a community that finds delight in the breadth of shopping options, the simplicity of ordering, and the opportunities for shared experiences that the platform provides. As a stimulant for shopping inquiry, "TLCommerce" is meant to have transformative and diverse effects on the country community. With more users, the app aims to improve the product culture on country by promoting a more upscale and daring shopping experience and encouraging customers to experience a variety of product. Beyond the simple transactional,

the goal is to create a thriving local shopping community that will benefit from increased visibility and support on a financial and cultural level.

In addition to user satisfaction, active engagement is expected, where the app becomes a source of joy for a community that enjoys the variety of cloth selections, the ease of ordering, and the chances for shared experiences that the platform offers.

1.5 Project management and finance

Embarking on the "TLCommerce" project necessitates a strategic approach encompassing various phases to ensure effective project management and financial sustainability.

Project strategy:

The project has a methodical and staged strategy that includes extensive market research, requirement collecting, system design, development and testing, deployment, documentation, user training, marketing, upkeep, and project conclusion.

Project Start-up:

Putting together the project team, assigning responsibilities, and laying the framework for project implementation are all part of starting a project. At this point, establishing project goals, laying out schedules, and figuring out resource needs are important factors to take into account.

Market investigation and evaluation:

To inform strategic decisions throughout the project's lifetime, a thorough market analysis serves as the cornerstone. This includes determining target demographics, comprehending competition landscapes, and assessing user preferences.

Requirements gathering:

To ensure that the final app closely satisfies the needs and expectations of the country shopping community, a methodical collection of project requirements entails engaging stakeholders to define critical functionalities.

System Design:

After requirements are obtained, the project proceeds to the design stage, where the architecture and features of the application are conceived, guaranteeing an intuitive user interface and maximum functionality.

Developing and Testing:

To provide a flawless user experience, implementation and testing follow the design, making sure the app is produced to specifications and thoroughly testing its security, functionality, and performance.

Deployment:

After testing is completed successfully, the software is made available to the university community officially. A smooth transition from development to active usage is ensured by a well-thought-out deployment strategy.

Documentation and User Training:

Extensive documentation is created to assist users and support teams. Training sessions are held concurrently to familiarize users with the app's features and operation.

Promoting and Marketing:

To maximize user involvement, focused promotional and marketing initiatives are used, using numerous channels to raise awareness and drive adoption across the country community.

Maintenance and Support:

Ongoing maintenance and support ensure the app's continuing functionality. To fix any concerns and ensure a great customer experience, prompt and effective assistance is offered.

Project completion:

The project closes with a thorough evaluation of outcomes, lessons learned, and prospective future development or expansion avenues.

Budget Prediction:

A detailed budget prediction details estimated costs for development, marketing, maintenance, and operations.

Financial Support:

Identifying and securing financial support mechanisms, such as potential partnerships or investments, ensures the financial viability of the project.

Cost Control:

Effective cost control strategies are used to keep expenses within the project's budget, ensuring financial sustainability throughout.

Income Generation:

Exploring income generation avenues such as transaction fees or partnership agreements with local shop contributes to the project's financial stability.

ROI: Return on Investment:

Evaluating the return on investment provides insights into the financial performance of the

project, guiding future financial decisions.

Accounting reporting:

ensures transparency and accountability, allowing for informed financial decisions and facilitating compliance with financial regulations.

Sustainability Over Time:

Long-term sustainability requires strategic planning, continuous adaptation to market dynamics, and responsiveness to user feedback to keep the app relevant and effective over time.

1.6 Goals

- **Facilitate Convenient Cloth Ordering:** Simplify the cloth ordering process to make it more intuitive and efficient for all users.
- **Support ecommerce Businesses:** Actively promote and support overall ecommerce communities, thereby increasing their visibility and economic growth.
- **Enhance shopping Experience:** Go beyond transactional interactions to improve the overall shopping experience, giving users a delightful and memorable journey.
- **Encourage Cloth Exploration:** Encourage users to explore diverse cloths, discover new flavors, and embark on a product adventure on country.
- **Create a virtual space that fosters a sense of community among users,** encouraging interaction, shared recommendations, and connections based on a shared love of cloth.
- **Contribute to Country Lifestyle:** Make shopping an integral and enjoyable part of daily life, bringing vibrancy, cultural diversity, and a sense of community to the country area.

These objectives define the overarching mission of "TiCommerce" within the country community, intending to create a transformative and engaging shopping experience.

1.7 Project Schedule

Given the time constraints, I must make a timetable to finish the job on time. It also means expressing how urgent the work in question is.

1.7.1 Release Plan and Milestone

The release plan and milestones are given below:

Activities	Duration in week Total week
Research	W1, W2
Specifications	W2, W3, W4
Planning	W3, W4 2
Design	W4, W5 2
Development	W4, W5, W6, W7
Testing	W7, W8
Assessment	W9
Documentation	W10, W11, W12
Software release	W12

Table 1.1: Release Plan

CHAPTER 2

BACKGROUND

2.1 Related work

The world of ecommerce systems has evolved dramatically, with established platforms setting remarkable standards in user experience, service efficiency, and market penetration. Platforms such as Daraz, Amazon, and Alibaba are notable among these industry leaders, having not only revolutionized shopping but also significantly influenced consumer preferences and habits. These platforms have become synonymous with the convenience and accessibility associated with modern shopping by providing diverse platform options, seamless interfaces, and efficient delivery services.

Localized shopping complex have emerged as good solutions in the country setting, where time constraints and a diverse demographic create a unique set of requirements. These platforms cater to the specific needs of people by emphasizing quick service and a diverse catalogue.

"TLCommerce" aims to draw inspiration from successful models while addressing specific challenges and limitations observed in the existing landscape when dissecting related work. The goal is to innovate rather than simply replicate, creating a platform that seamlessly integrates into the country area, enriching the shopping experience for its users. Understanding the dynamics of these related works provides valuable insights into user expectations, technological requirements, and market trends, laying the groundwork for "TLCommerce" to build a one-of-a-kind and impactful service within the shopping community.

2.2 Scope

"TLCommerce" goes beyond the traditional boundaries of online product delivery, carving a niche customized to the dynamic environment of a country. Geographically, the platform only operates within the vibrant confines of the country area, cultivating a localized start ups that resonates with the distinct rhythms of people life. This deliberate localization not only simplifies delivery logistics but also contributes to the development of a close-knit shopping community on country.

Shopping diversity is at the heart of the scope, with "TLCommerce" aiming to offer a rich tapestry of flavors to cater to the product community's diverse tastes and preferences. The platform envisions a menu that includes everything from traditional local shops to international items, ensuring that every user finds something they enjoy.

Furthermore, the scope goes beyond the transactional aspects of placing an order for cloth. "TLCommerce" envisions potential collaborations with local start ups, product integration, and exclusive partnerships to elevate the overall shopping experience. This multifaceted scope is intended not only to meet users' immediate needs but also to anticipate and adapt to the shopping community's evolving product habits.

"TLCommerce" aims to focus its resources, innovate within defined parameters, and deliver a service that aligns seamlessly with the expectations and nuances of the country environment by clearly delineating the scope. This strategic approach ensures that every aspect of the platform is specifically designed to improve the product journey of the shopping community.

2.3 Challenges:

Key Conditions

- Even with a sluggish internet connection, the site should load in under two seconds.
- Implement a search function that, regardless of the quantity of items in the database, provides results in just milliseconds.
- Users should be able to order items and justifying in under 30 seconds.

One of the most difficult challenges is persuading users to switch from traditional shopping habits to an online shopping platform. Overcoming resistance necessitates a comprehensive onboarding strategy, clear communication of the platform's value proposition, and incentives that align with the lifestyle of the country community.

Creating a seamless and intuitive platform necessitates addressing a plethora of technical complexities. Integration with various payment gateways, various management systems, and data security necessitates careful planning and execution. The technical architecture must be able to withstand varying loads during peak usage periods.

Judging Standards:

- Application speed: The quicker the better.
- Make sure the user interface is responsive and fluid.

Efficiency: Make code, database queries, and other resources as quick as possible.

Scalability: Show that the application is capable of handling more traffic.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modelling (BPM)

A helpful method for visualizing and recording the operations and activities within a company or application is business process modelling (BPM). You may use BPM to identify the main procedures in a "Food Sharing Platform" online application for exchanging custom foods. The BPM for such a platform is as follows:

Sharing foods on a "TLCommerce" is the process.

Authentication of Users and User Registration

- Users log in and register on the platform.
 - Sub-processes:
 - User Authentication
 - User Sign-Up

Management of profiles:

- Users can create, edit, and manage their profiles.
 - Sub-processes:
 - Make a Profile
 - Change Profile
 - Eliminate Profile

Product Development:

- Users can order and justify their orders.
 - Sub-processes:
 - Make an order
 - Product Editing
 - Discard Product
 - Searching for and Finding Products
- Users can look for products that have been recommended by others.
 - Sub-processes:
 - Keyword Lookup
 - Using Categories to Search
 - Viewing and interacting with cloth.

- Users may read products, rate them, and leave comments, and/or save them.
 - Sub-processes:
 - Watch product
 - product review
 - Save product
 - Social Dialogue

- Users may create networks, follow other users, and get updates.
 - Sub-processes:
 - Observe User
 - User unfollowed
 - Notifications

Product Exchange:

- Users can post products on other social media sites.
 - Sub-processes:
 - Post to social media
 - Send to Email

Product Administration:

- Users can edit the product they've shared.
 - Sub-processes:
 - Edit a product Shared
 - Substitute product Food
 - Updated product information

Feedback and assistance:

- Users may give feedback and ask for assistance.
 - Sub-processes:
 - provide suggestions
 - Request assistance

Management and Control:

- Administrators can control users, material
 - Sub-processes:
 - Content Control
 - User Administration
 - Resolution of Conflict

Reporting and Analytics:

- Producing reports and analyzing user activity and food popularity.
 - Sub-processes:
 - Data Gathering
 - Analysis of Data
 - Create Reports

Data privacy and security:

- Ensuring the safety of the platform and adherence to data privacy laws.
 - Sub-processes:
 - Protection of User Data
 - Audits of security
 - Compliance Examines
 - Updating and maintaining the platform
- Maintenance, bug repairs, and feature upgrades are ongoing activities.
 - Sub-processes:
 - Fixing bugs
 - Feature Creation
 - Maintenance of servers

The main operations of a web application for a shopping platform are high-level summarised in this BPM. These procedures can each be described in more depth with particular actions and judgment calls. To provide a seamless and interesting user experience on the platform, it's also critical to take into account the user experience and interaction flow inside each procedure.

3.2 Development model:

The e-commerce shopping Platform is a web application created to make it easier for people to share their favorite products. The fundamental elements and procedures to build a reliable and approachable platform for food aficionados are outlined in this development model.

User Sign-Up and Profiles:

- Add login and user registration capabilities.
- Permit users to make profiles.

Inquiry and Discovery

- Create a robust search engine that enables users to locate product using keywords, ingredients, or cloths.
- Make a section that features trendy cloths.
- Include a method for recommending customized cloth ideas.

Social Qualities

- Users should be able to follow other users and view their most recent products.
- Create a product rating and commenting system.
- Ensure that users may store their preferred products.

Community Engagement:

- Create a forum or message board where people may post queries and shopping advice.
- Create product contests and challenges.
- Mobile Adaptivity
- Make sure the platform is usable on a range of gadgets, such as smartphones and tablets.

Privacy and security

- Put data protection safeguards for users in place.
- Verify and control material to stop products that are unsuitable or hazardous.
- Reporting and Reaction
- Include a method for user feedback so they may report problems or make suggestions.
- keep an eye on the platform and change it as needed depending on user input.

Scalability and Effectiveness

- Plan the platform's scalability with a rising user base in mind.
- To guarantee quick loading times and responsiveness, and optimize performance.

Tests and Quality Control

- Do extensive testing to find and repair issues.
- Conduct security audits to safeguard user information.
- Do automation testing in necessary modules

Promotion and Marketing

- Create a smart launch campaign to draw in new consumers.
- Make use of influencers, social media, and food bloggers for promotion.

Continual Development

- Update the platform often with new features and improvements depending on consumer demand and market developments.

In conclusion, the development approach for the ecommerce shopping Platform sets the groundwork for producing an interesting and user-focused online service. The website wants to become the go-to location for sharing and finding distinctive products by emphasizing user experience, security, and community participation.

3.2.1 Functional Requirements

- Functional Requirements for a Platform for product Delivery.

Authentication and User Registration

- Users must be able to register using their email addresses or social media accounts.
- Security calls for the implementation of authentication techniques like email verification and password reset.

Profile Control

- The ability for users to establish and manage their profiles

Creating and Editing Items

- Users ought to be able to create new products by including information like the title, the materials, the procedures of preparation, and the order time.
- Existing products should also be supported for editing and upgrading.

Categorization of Items

Products have to be divided into different cloth groups (such as traditional and international) and people requirements (such as local or western).

Inquiry and Discovery

- The ability for users to search for products using keywords, ingredients, or categories is required.
- Based on user preferences and surfing history, a recommendation system needs to offer product suggestions.

Reviews and Ratings

- Reviews and ratings from users should be allowed for products.
- The shopping platform needs to provide average ratings.

Comments and Dialogue

- Users ought to be able to debate topics with other users and provide comments on products.
- Implementing moderation tools to control improper content is a good idea.

Social Networking

- On social media networks, users should have the ability to contribute product.
- A benefit is integration with well-known social networks for simple sharing.

Notifications to Users

- Users ought to be informed of actions involving their products, comments, and followers.

Security Settings

- Users ought to be able to choose whether to make their products public or private by controlling the privacy settings for those product.
- It should be possible to control follower requests and follow other users.
- Users should have the option to bookmark their preferred products for easy access.

Admin Dashboard

- A user's activity , together with updates from persons they have followed and suggested products, should be visible on a person's dashboard.

Product Export

- The ability to export products in various forms, such as PDF or printer-friendly copies, should be available to users.

Monitoring and Control

- Create a procedure for reporting offensive content or conduct.
- There should be admin tools for controlling user-generated material.

Reaction Mechanism

- Create a feedback system that would enable users to offer recommendations and report problems with the platform.

Mobile Friendliness

- Make that the platform is user-friendly and available on a variety of gadgets, such as smartphones and tablets.

Scalability and performance

- The platform has to have the capacity to handle a sizable quantity of products and a developing user base.

Data Protection and Recovery

- backup user data regularly and offer ways to restore it in case of system outages.

Security and Compliance

- Implement security measures to safeguard user information and guarantee compliance with data privacy laws.

Information and Analytics

- Users should be provided with metrics and insights, such as data on user involvement and the most popular products.
- These functional requirements will serve as the framework for a powerful and user-friendly shopping platform, boosting user experience and encouraging community interaction.

3.2.2 Non-functional Requirement

- **Performance:** The platform must be snappy, load rapidly, and support many

concurrent users without noticeably degrading performance.

- **Security:** To safeguard user data and stop unwanted access, strong security measures should be in place. Data encryption and safe authentication are included.
- **Scalability:** The system must be capable of expanding horizontally to meet the needs of growing user traffic and data storage.
- **User Experience:** A pleasant and effective user experience may be achieved by having an intuitive and user-friendly user interface.
- **Compatibility:** To provide accessibility for a large user base, the platform should be compatible with a range of web browsers and mobile devices.
- **Data Backup and Recovery:** To prevent data loss in the event of system failures or other emergencies, regular data backups and a disaster recovery strategy should be in place.
- **Compliance:** The platform shall abide by pertinent data protection laws and copyright laws, protecting the producers of foods' intellectual property.
- **Reliability:** The system should operate continuously with little downtime for repairs or upgrades.
- Hosting infrastructure should be scalable to handle traffic surges and the expansion of users and data.
- **Analytics and Reporting:** To enhance platform performance and user experience, implement analytics tools to measure user interaction, popular foods, and user activity.
- These functional and non-functional criteria offer a thorough foundation for creating a shopping Platform that assures system performance and user happiness.

3.2.3 Hardware specification:

Processor	2.6 GHz or faster process
RAM	4 GB
Disk space	4 GB of available hard disk

3.2.4 Software specification:

Operation System	Windows 10
Frontend	HTML, CSS, JS
Frontend framework	React.js, Bootstrap
Backend	PHP
Code Editor	Visual studio code
Database	MySQL
Web Browser	Google Chrome
Web Server	Localhost
Automation Testing tools	Selenium web driver
Automation testing Software	Eclipse

Figure 3.1: Specifications.

3.3 Use Case Diagram

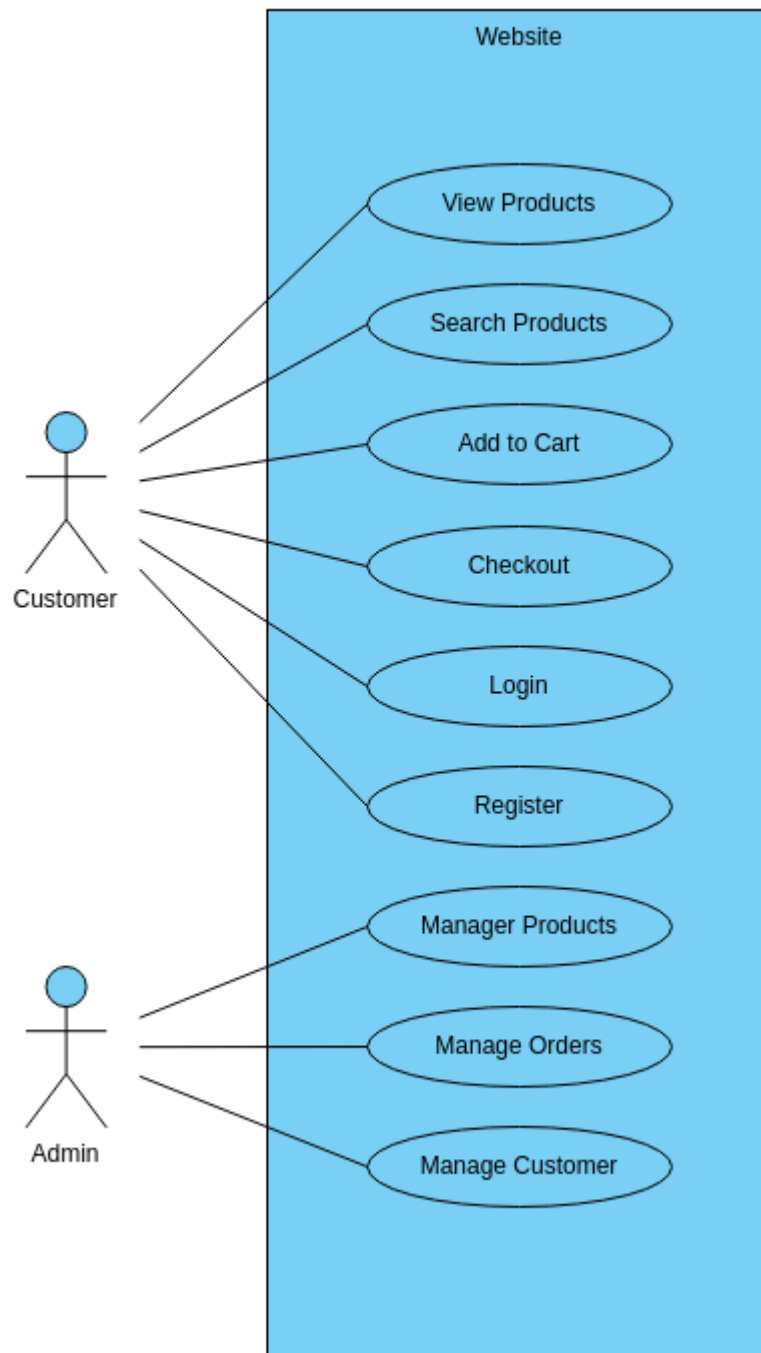


Figure 3.2: Use case diagram.

3.3.1 Use Case Description

Actors:

User: Represents a member of the shopping Platform who has signed up.

Admin: Denotes a moderator or administrator in charge of controlling the platform's users and content.

Use Cases

- Create a new account on the platform by clicking "Register Account."
- Log in: Permits a user to access their account.
- Users can log out of their accounts using the logout feature.
- Product Search: This feature enables users to look for products based on a variety of parameters (such as a keyword, category, or ingredient list).
- View product Details: This enables a user to see a single product details.
- Users may add their product to the site using the upload product function.
- Edit product: Permits a user to change or improve a product that has already been posted.
- Item Delete: This feature enables users to delete one of their posted products from the platform.
- Product Rating: This feature enables users to comment and rate product.
- Remark on product: Permits users to remark on product.
- Report product: This feature enables a user to report product for offensive material.
- Manage Profile: This feature enables users to edit their profile details, such as their profile photo and bio.
- Manage Favourites: This feature enables users to edit or add product to their list of favorites.
- To follow or unfollow other people and get updates on their product, go to Manage Subscriptions.
- Administrate Users: This function enables an admin to control user accounts, including the ability to prohibit or suspend users.
- Administrate products: This feature enables an admin to control the platform's products.

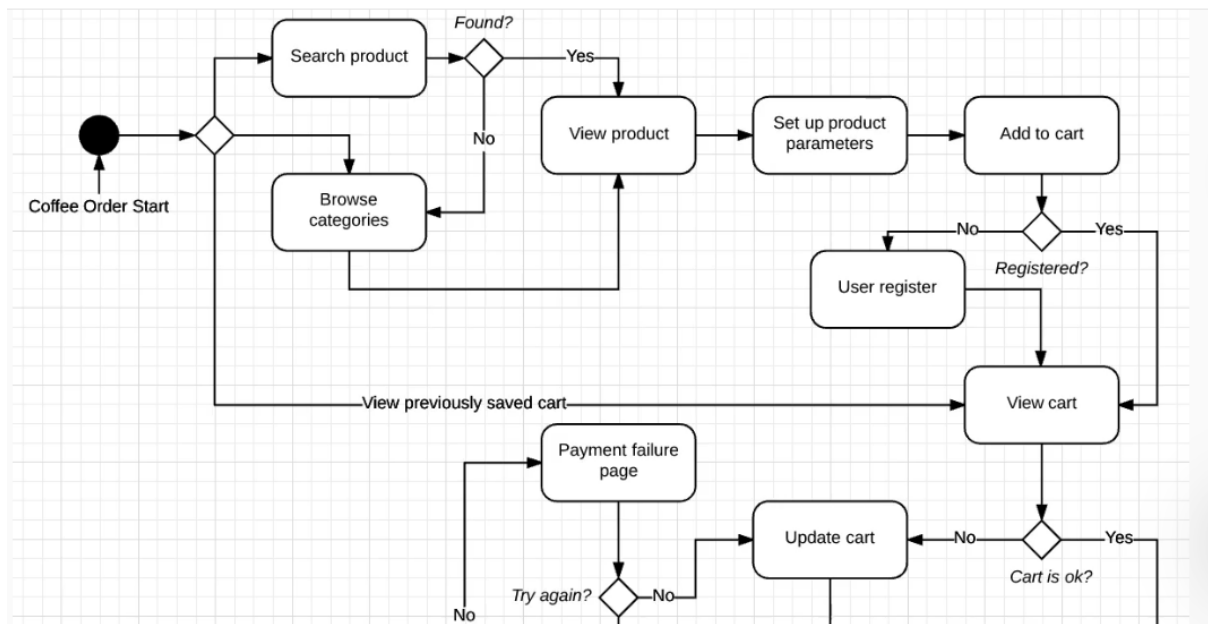
Associations:

- Users may participate in a variety of use cases, such as signing up, looking for product, and managing their accounts.
- For managing users and products, admins have access to use cases that are special to them.
- Products can be uploaded, edited, deleted, rated, commented on, and reported by users.
- Additionally, users may control how they engage with product by adding them to their favorites or subscribing to other users.
- The admin actor is the only one who may utilize the "Administrate Users" and

"Administrate products" use cases.

The interactions between the system and the actors for a shopping platform are high-leveled in this use case diagram. It can act as a springboard for the creation and design of more intricate systems.

3.4 Activity Diagram



3.3Activity Diagram

3.5 Sequence Diagram (For Login):

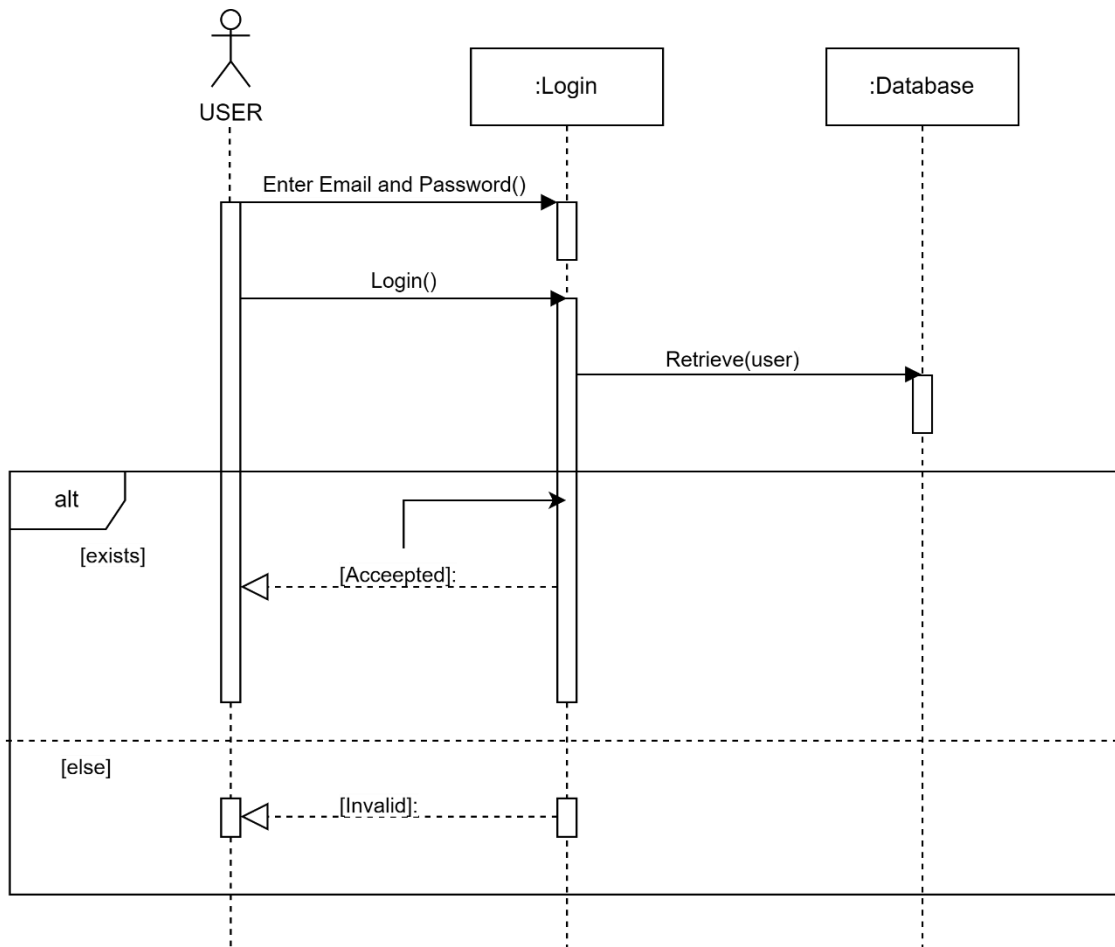


Figure 3.4 Sequence Diagram

Sequence Diagram (Shopping)

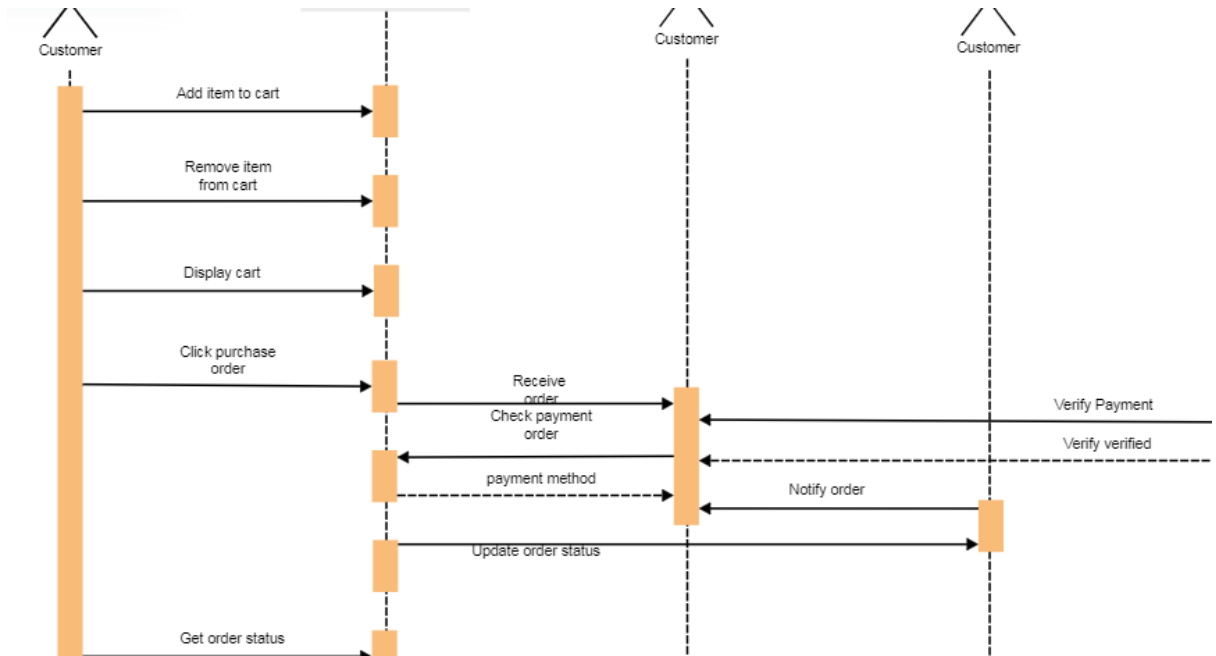


Figure 3.5 Sequence Diagram

3.6 Class Diagram

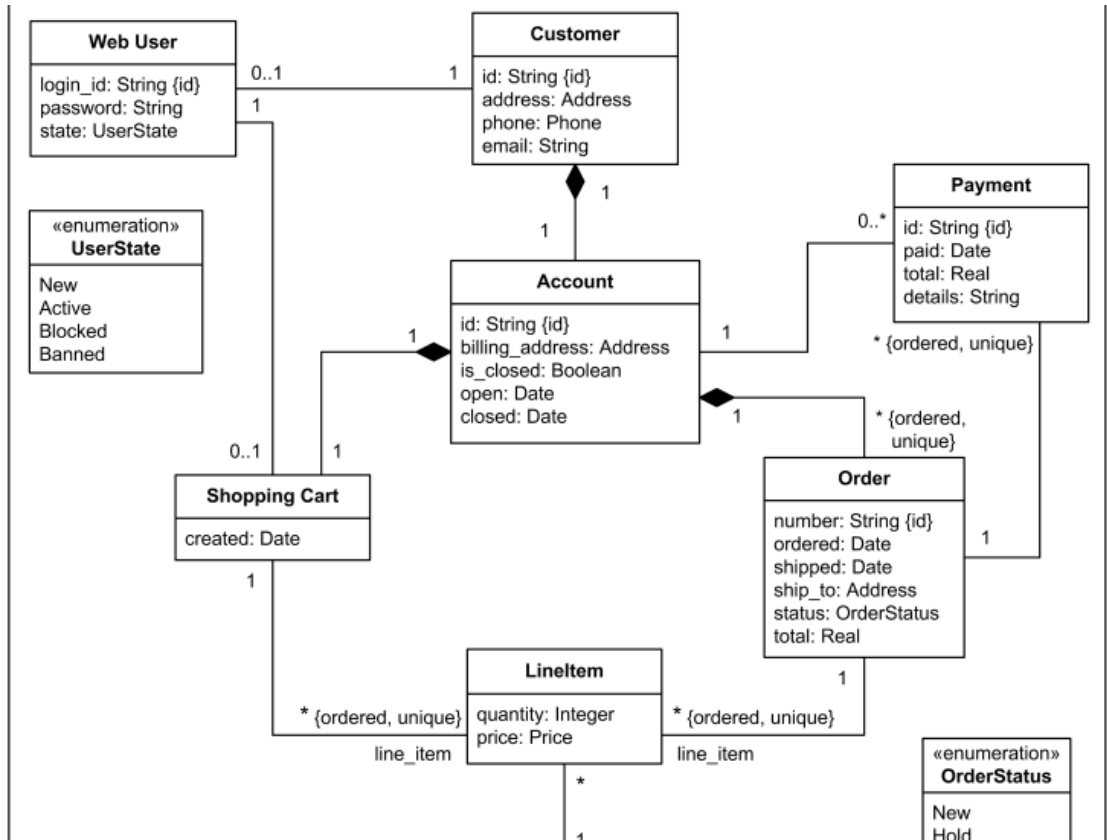


Figure 3.6: Class Diagram

CHAPTER 4

DESIGN SPECIFICATION

4.1 FRONT END DESIGN

A user-friendly online application called the TLCommerce Platform was created to support a community of Shopping lovers and make it simple for them to order their favorite product. This platform's interface has been carefully designed to offer a seamless and interesting user experience.

1. An easy-to-use interface

- Users are welcomed by the homepage's aesthetically appealing design, which includes tantalizing product images and an easy-to-use navigation menu.
- Users may easily discover products, ingredients, or other users thanks to the top search bar.

2. Users' profiles

- Each user gets a unique profile page where they may display their personal information, favorite product, and product accomplishments.
- Users can follow other users to create a network of like-minded shopping lovers.

3. Product Cards:

- Product cards entice viewers to click and continue exploring by featuring appetizing product images and descriptions.
- Users may save their favorite products using the "Save" button.

4. Product Detail Page:

- A complete product page with explicit step-by-step directions, ingredients, and preparation time is opened by clicking on a product card.
- Users have the option to rate products, provide comments, and pose queries.

5. Easy Item Development:

- Users may easily share their favorite products thanks to an uncomplicated product.
- Users may contribute nutritional details, item swaps, and culinary advice.

6. Tags and Categories:

For effective searching, products are categorized (local and international) and tagged with pertinent keywords.

7. Flexible Design:

- For a smooth experience on desktop, tablet, and mobile devices, the platform is entirely responsive.

8. Notifications

- Users are kept involved in the community by receiving alerts for new followers, comments, and restaurant updates.

9. User-Interaction Features

- Users may host interactive product demonstrations using the amazing features.
- It is encouraged to use user-generated material, such as product videos.

10. Security and Privacy:

- User's data is protected by strong security measures.
- Users can change their privacy preferences.

In conclusion, the front end of the TLCommerce Platform is created to be a warm and user-centered environment for product lovers to express their passion for cloth. It promotes a feeling of community while giving chefs of all skill levels a smooth and delightful experience.

4.2 BACK-END DESIGN

The backend development of a “Shopping Platform” entails developing the fundamental features that let users share and access special clothes. The main elements are briefly summarized as follows:

User authentication: Use user registration and login features to make sure that access is safe. Protect user data by using encryption techniques.

Database Design: Construct a dependable database design to keep user profiles, products, comments, and other pertinent information. Use a NoSQL database, such as MongoDB, or a relational database, such as MySQL.

Product management: Create APIs that allow users to add, and amend their products. Include fields for the product name, components, stages of preparation, and delivery time. Data integrity must be maintained by ensuring data validation.

Implement search and filtering features so that consumers may explore products based on keywords and other requirements.

Create user profiles for each user that show their follows, likes, and products they have posted. Permit users to follow and communicate with one another.

Users should be given the option to comment and rate products. Create a ranking system to assist customers in finding well-liked products.

Implement a notification system to inform users when a product has been updated, a remark has been made, or a new follower has joined.

Protection against typical web application vulnerabilities like SQL injection and cross-site scripting (XSS) should be ensured by using strong security measures.

Design crystal-clear, thoroughly defined API endpoints for front-end integration as well as potential future mobile apps.

Performance Improvement: Improve

Performance optimization: Make database queries as efficient as possible, employ caching where appropriate, and make sure the program can manage several concurrent users.

Scalability: Create a scalable backend to support an expanding user base. For scalability, think about utilizing load balancing and cloud-based infrastructure.

Testing and debugging: To find and address any problems, thoroughly test the program using unit tests, integration tests, and security audits.

Application deployment: Place the application on a trustworthy hosting platform like AWS, Google Cloud, or Azure.

Implement monitoring tools to keep tabs on the effectiveness of your applications and user interaction. Utilise analytics to learn about user behavior.

Compliance: If necessary, make sure that data protection laws, including the CCPA or GDPR, are followed.

These instructions will help you build a strong backend for your "Shopping Platform" that enables users to post their favorite products and interact with one another in a safe and convenient setting.

CHAPTER 5 IMPLEMENTATION & TESTING

5.1 About page

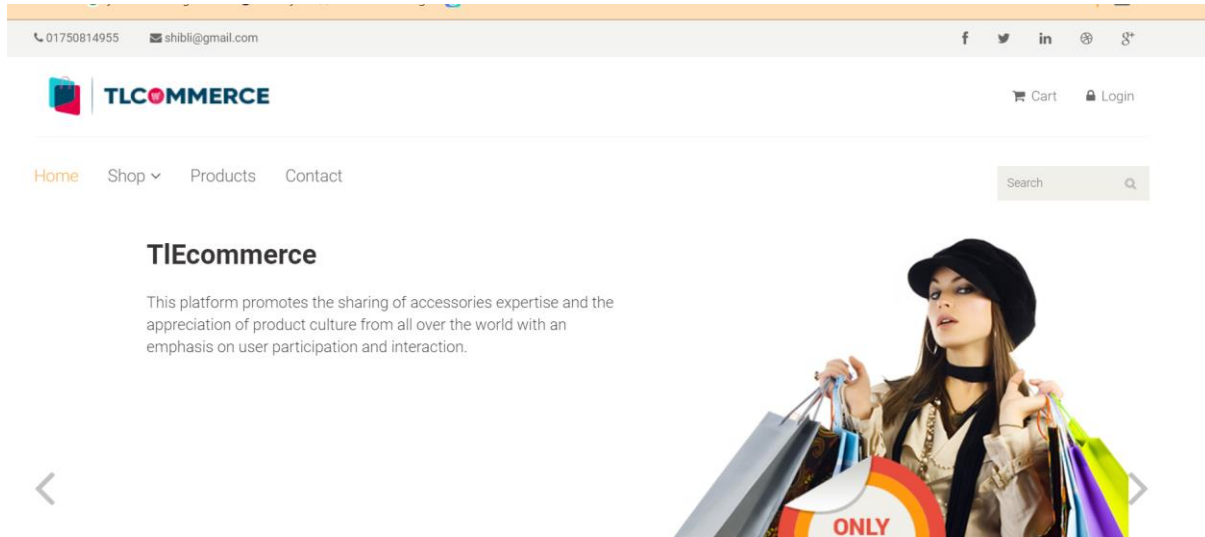


Figure 5.1 About Page

5.2 Home Page

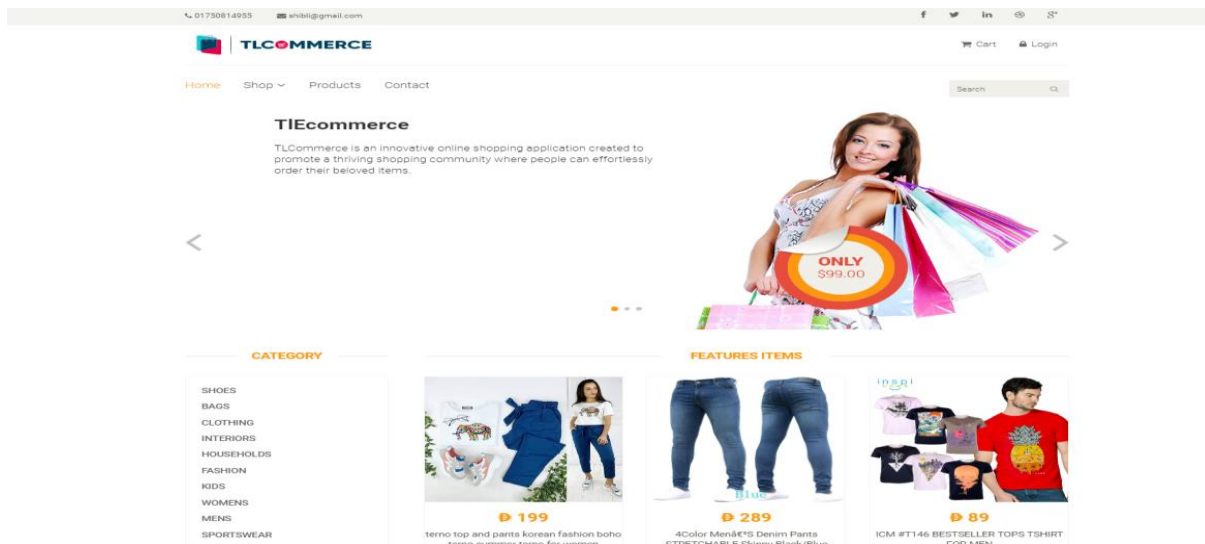


Figure 5.2 Home Page

5.3 User Sign-up

shibli@gmail.com

MMERCE

Products

TIEcommerce

TLCcommerce is an in
promote a thriving sh
order their beloved it

Login **Sign Up**

Customer Details

First Name:

Last Name:

Gender: Male Female

City:

Username:

Password:

Note

Password must be atleast 8 to 15 characters. Only letter, numeric digits, underscore and first character must be a letter.

Contact Number:

Agree with the [TERMS AND CONDITION](#)
TIEcommerce

Sign Up **Close**

Figure 5.3 User Sign-Up Page

5.4 User Login

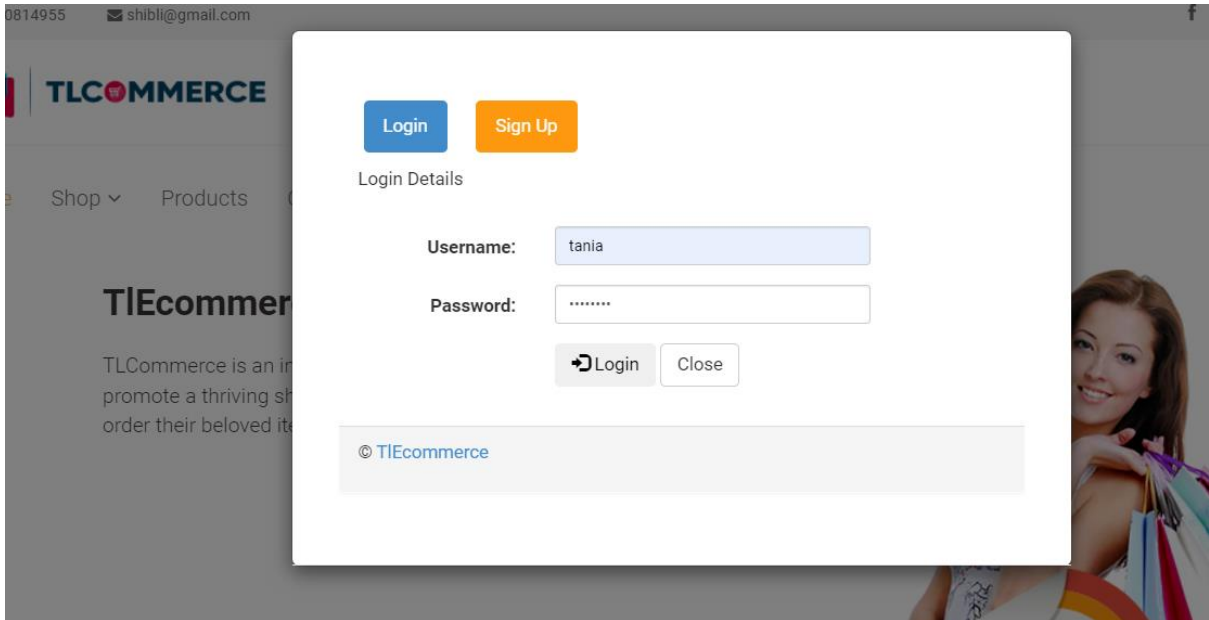


Figure 5.4 User Login Page

5.5 Recommended Items

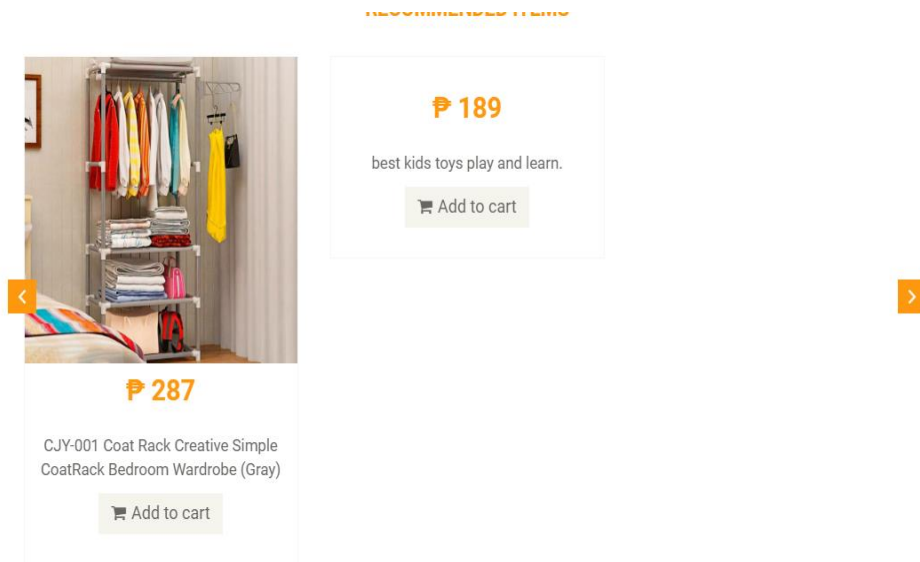


Figure 5.5 Recommended Items

5.6 Add to Cart

1 Item added in the cart.






Product	Description	Price	Quantity
 Add to wishlist	4Color Menâ€™S Denim Pants STRETCHABLE Skinny Black/Blue	₱ 289	2 
 Add to wishlist	ICM #T146 BESTSELLER TOPS TSHIRT FOR MEN	₱ 89	1 


Figure 5.6 Add to Cart

5.7List of Orders



LIST OF ORDERS UPDATE ACCOUNT WISHLIST

Search:

#	Order#	Date Oredered	TotalPrice	PaymentMethod	Status	Remarks
1	99	Jan/23/2024 07:50:17	₱ 486	Cash on Delivery	Pending	Your order is on process. 

Showing 1 to 1 of 1 entries

PREVIOUS 1 NEXT

Real name Tania Sultana

[Change Password](#)

Figure 5.7 List of Orders

5.8 User Update Account



Real name Tania Sultana

LIST OF ORDERS **UPDATE ACCOUNT** WISHLIST

Your Account

First Name:
Last Name:


City:
Contact#:

Username:
Gender: Male Female

Save

Figure 5.8 User Update Account

5.9 Order Information



Your order is on process. Please check your profile for notification of confirmation.

Order Information

PRODUCT	PRICE	QUANTITY	TOTAL PRICE
CJY-001 Coat Rack Creative Simple CoatRack Bedroom Wardrobe (Gray)	₹ 287.00	1	₹ 287.00
terno top and pants korean fashion boho terno summer terno for women	₹ 199.00	1	₹ 199.00

Ordered Date : Jan/23/2024 07:50:17
 Payment Method : Cash on Delivery

Total Price : ₹ 486.00
 Delivery Fee : ₹ 70.00
 Overall Price : ₹ 486.00

Figure 5.9 Order Information

5.10 Admin Login

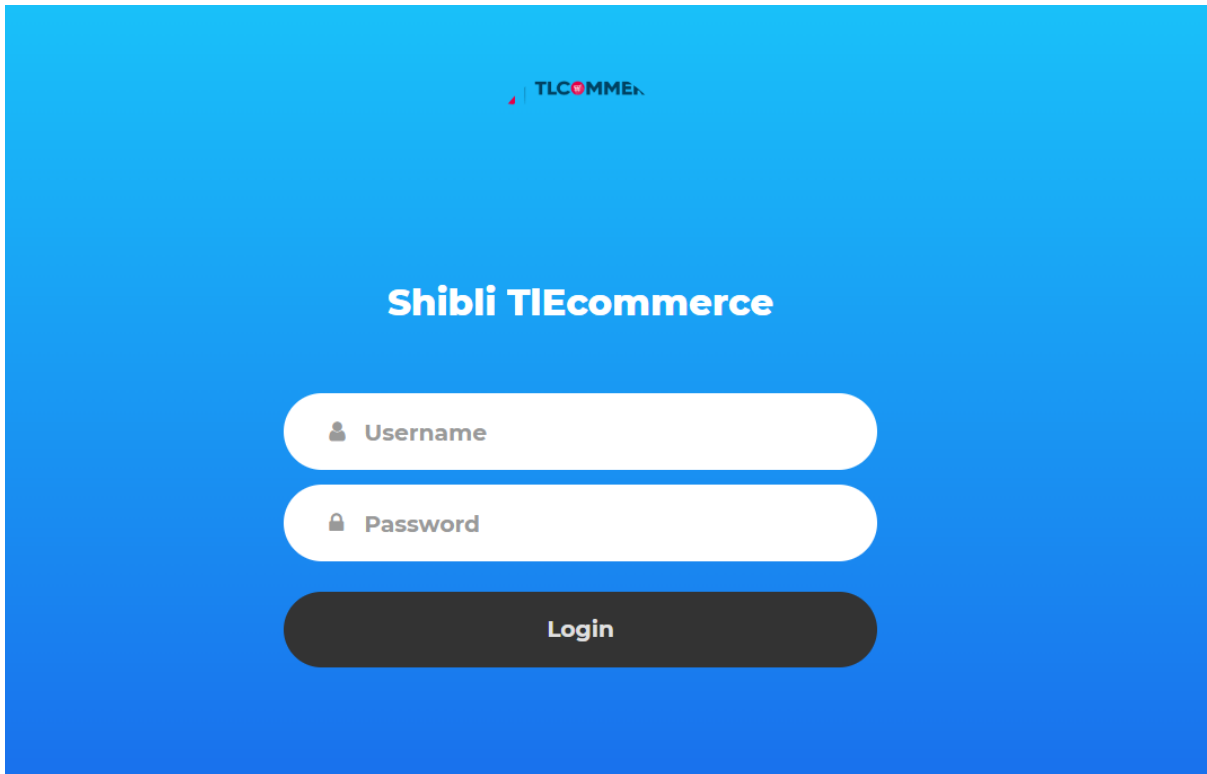


Figure 5.10 Admin Login

5.11 Add New Product

Products / add

Add New Product

Owner:

Phone:

Description:

Category:

Original Price: Price:

Quantity:

Upload Image: PINK-3-PIE...ANDBAG.jpg

Figure 5.11 Add New Product

5.12 All Products

Products /

New Product created successfully!

List of Products [New](#)

Show entries Search:

#	Image	Product	Description	Price	Discount%	Discounted Price	Quantity
<input type="checkbox"/>		CLOTHING	terno top and pants korean fashion boho terno summer terno for women	₹ 199.00	₹ 0	₹ 199.00	3
<input type="checkbox"/>		MENS	4Color Men&S Denim Pants STRETCHABLE Skinny Black/Blue	₹ 289.00	₹ 0	₹ 289.00	3
<input type="checkbox"/>		MENS	ICM #T146 BESTSELLER TOPS TSHIRT FOR MEN	₹ 89.00	₹ 0	₹ 89.00	4
<input type="checkbox"/>		HOUSEHOLDS	CJY-001 Coat Rack Creative Simple CoatRack Bedroom Wardrobe (Gray)	₹ 287.00	₹ 0	₹ 287.00	4
<input type="checkbox"/>		KIDS	best kids toys play and learn.	₹ 189.00	₹ 0	₹ 189.00	200
<input type="checkbox"/>		BAGS	Lightweight, flexible container meant for carrying things.	₹ 500.00	₹ 5	₹ 0.00	1

Figure 5.12 All Products

5.13 Add New Category

Category / add

Add New Category

Category:

Figure 5.13 Add New Category

5.14 All Categories

Category /

List of Categories [New](#)

Show entries Search:

Category	Action
SHOES	Edit Delete
BAGS	Edit Delete
CLOTHING	Edit Delete
HOUSEHOLDS	Edit Delete
FASHION	Edit Delete
KIDS	Edit Delete
WOMENS	Edit Delete
MENS	Edit Delete
Baby Product	Edit Delete

Showing 1 to 9 of 9 entries Previous **1** Next

Figure 5.14 All Categories

5.15 List of Orders

Order has been Cancelled!

List of Orders

Show entries Search:

#	Order#	Customer	DateOrdered	Price	PaymentMethod	Status	Action
1	97	John elia	Aug/17/2022 12:19:59	₱ 408.00	Cash on Delivery	Pending	Cancel Confirm
2	96	zoha gula	Aug/16/2022 01:51:55	₱ 408.00	Cash on Delivery	Confirmed	Confirmed
3	95	zoha gul	Aug/15/2022 06:13:51	₱ 219.00	Cash on Delivery	Confirmed	Confirmed
4	94	Annie Paredes	Aug/21/2019 06:27:09	₱ 269.00	Cash on Delivery	Confirmed	Confirmed
5	98	Tania Sultana	Jan/23/2024 10:37:37	₱ 689.00	Cash on Delivery	Cancelled	Cancelled
6	93	Annie Paredes	Aug/21/2019 06:24:24	₱ 0.00	Cash on Delivery	Cancelled	Cancelled

Showing 1 to 6 of 6 entries Previous **1** Next

Figure 5.15 List of Orders

5.16 Add Discounted Price

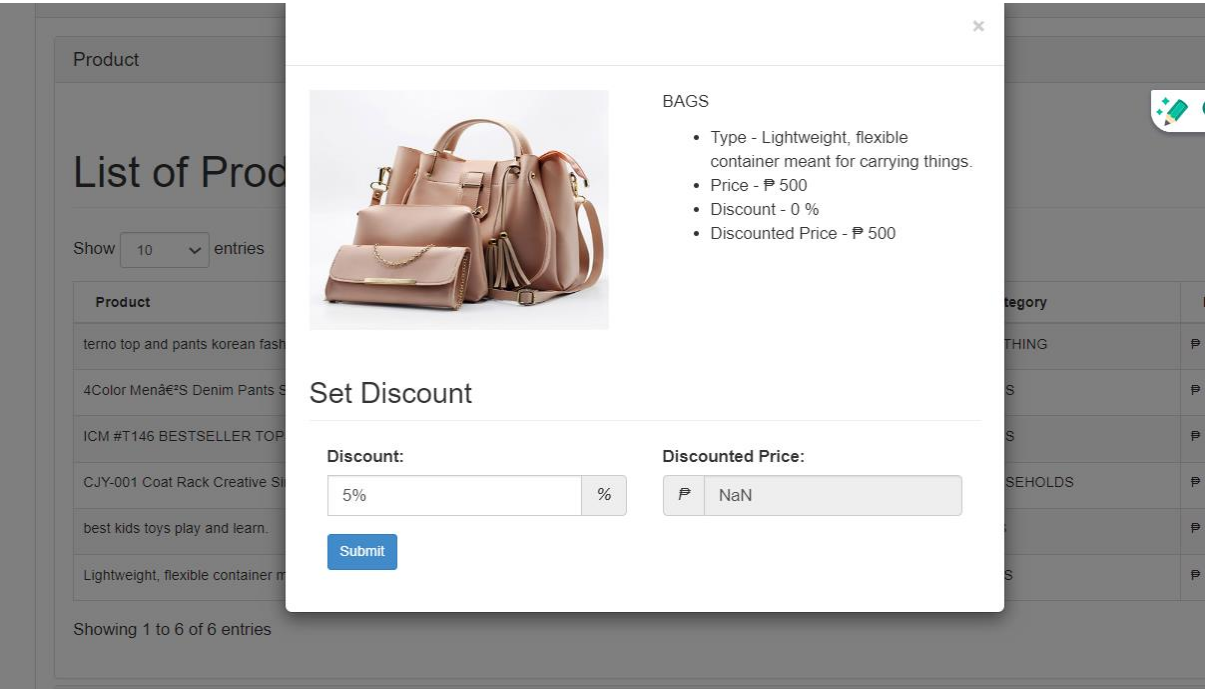


Figure 5.16 Add Discounted Price

5.17 Add New Admin

Add New Admin

Name:

Username:

Password:

Role:

Figure 5.17 Add New Admin

5.18 List of Admin

List of Admin [New](#)

Show entries Search:

Account Name	Username	Role	Action
Shuvo	Shuvo	Staff	✉ 🗑
Shibli	Shibli	Administrator	✉ 🗑
William	william	Staff	✉ 🗑

Showing 1 to 3 of 3 entries Previous **1** Next

Figure 5.18 List of Admin

5.19 Contact Us

GET IN TOUCH

CONTACT INFO

TlCommerce
Uttara,Dhaka
Mobile:01732067083
Email: info@tlCommerce.com

SOCIAL NETWORKING

[f](#) [t](#) [g+](#) [You Tube](#)

Figure 5.19 Contact Us

5.17 Feature Testing

The TLCommerce Platform is a website application created to connect shopping lovers by enabling them to order their favorite products. Thorough feature testing is necessary to guarantee a seamless user experience and the effective operation of this platform. Feature testing involves both manual & automation testing powered by the Selenium web driver. We applied automation testing in repetitive testing functions like login and Registration. We need to test these functions always.

Here are some crucial feature tests to take into account:

❖ User Sign-Up and Log-In:

- Verify that new users may create accounts by testing the user registration process.

- Check that users can access the system using their login information.
- ❖ **Product Development:**
 - To check that users opinions
 - Verify that users can classify items by type (for example, local and international) and delivery time.
- ❖ **A user's profile**
 - Create and update user profiles for testing.
 - Verify that users have access to their product Orders, Cart
- ❖ **Notifications:**
 - Test the alerts for new likes, comments, and follows.
 - Verify that emails are sent out as necessary as notifications.
- ❖ **Privacy and security:**
 - Conduct a vulnerability assessment to look for cross-site scripting or SQL injection.
 - Check to see if user information and passwords are encrypted and stored securely.
- ❖ **Adaptively:**
 - Check the usability of the platform on various hardware and screen sizes.
 - Make sure the user interface adjusts properly for tablet and mobile devices.
- ❖ **Performance evaluation**
 - Check the application's response time under various loads to make sure it can support several users at once.
 - Search for sites that take a long time to load and improve them as needed.
- ❖ **Accessibility:**
 - Conduct accessibility testing to confirm that the platform complies with WCAG standards and can be used by people with impairments.
- ❖ **Web Browser Support:**
 - To guarantee consistent functioning, test the application on different web browsers (such as Chrome, Firefox, Safari, and Edge).
- ❖ **Backup and recovery of data:**
 - Check to see that user-generated data, such as user profiles and foods, is frequently backed up and is recoverable in the event of data loss.
 - Make sure people may comment, and report offensive content.
- ❖ **Localization:**
 - If the application is designed for a worldwide audience, make sure it works with diverse languages and locations.
- ❖ **Reporting and Reaction:**

- Make sure people may comment, report offensive content or contact support.

❖ **Payment :**

- Any subscription-based business should undergo testing for premium features and payment processing.

The Shopping Platform may be improved to create a pleasurable user experience and develop a thriving community of product aficionados who can easily share their distinctive products by undertaking rigorous feature testing.

5.17 Manual Testing

Ui Testing

Test Case	Expected Result	Actual Result	Reproducing Steps	Test Result
001. Checking spelling or grammatical mistakes	No spelling or grammatical mistakes	Found as per expectation	N/A	Passed
002. Verifying the font, text color, and style	Should be as per the requirement	Found as per expectation	N/A	Passed
003. Checking the alignment of the fields	Proper alignment of the fields should be present	Found as per expectation	N/A	Passed

Nav Bar Testing

Test Case	Expected Result	Actual Result	Reproducing Steps	Test Result
004. Testing Home Button	The page will directed to the Home page	Found as per expectation	1. Go to http://localhost:5173/ 2. click on Home Button	Passed

005. Testing product Stalls Button	The page will directed to the Product Stalls Page	Found as per expectation	1. Go to http://localhost:5173/ 2. click on the product Stalls Button	Passed
006. Testing About Us Button	The page will directed to the About Us Page	Found as per expectation	1. Go to http://localhost:5173/ 2. click on the About Us Button	Passed
007. Testing About Us Log-in Button	The page will directed to Log in Page	Found as per expectation	1. Go to http://localhost:5173/ 2. click on Log in Button	Passed
008. Testing Profile Button	Page will directed to User Profile Page	Found as per expectation	1. Go to http://localhost:5173/ 2. click on Log in Button 3. Log in as customer using email & Password 4. Click on profile Button	Passed
009. Testing Cart Button	Page will directed to Cart Page	Found as per expectation	1. follow Step1-3 from previous test case 4. Click on Cart Button	Passed
010. Testing product Orders Button	Page will directed to product Orders Page	Found as per expectation	1. follow Step1-3 from previous test case 4. Click on the product Orders Button	Passed
011. Testing Dashboard Button	The page will directed to the Dashboard Page	Found as per expectation	1. Go to http://localhost:5173/	Passed

			<p>2. click on Log in Button</p> <p>3. Log in as Seller using email & Password</p> <p>4. Click on the Dashboard Button</p>	
012. Testing Orders Button	Page will directed to the Orders Page	Found as per expectation	<p>1. follow Step1-3 from the previous test case</p> <p>4. Click on the Orders Button</p>	Passed
013. Testing Manage products Button	Page will directed to Manage product Page	Found as per expectation	<p>1. follow Step1-3 from previous test case</p> <p>4. Click on Manage products Button</p>	Passed
014. Testing Add product Button	Page will directed to Add product Page	Found as per expectation	<p>1. follow Step1-3 from previous test case</p> <p>4. Click on Add product Button</p>	Passed
015. Testing Admin Panel Button	Page will directed to Admin Panel Page	Found as per expectation	<p>1. Go to http://localhost:5173/</p> <p>2. click on Log in Button</p> <p>3. Log in as Admin using email & Password</p> <p>4. Click on Admin Panel Button</p>	Passed
016. Testing Manage Users Button	The page will directed to the Manage Users Page	Found as per expectation	<p>1. follow Step1-3 from the previous test case</p>	Passed

			4. Click on the Manage Users Button	
017. Testing Manage product Stalls Button	Page will directed to the Manage Product Stalls Page	Found as per expectation	1. follow Step1-3 from the previous test case 4. Click on the Manage product Stalls Button	Passed

Footer Testing

Test Case	Expected Result	Actual Result	Reproducing Steps	Test Result
018. Testing Twitter icon	The page will directed to the Twitter page	Found as per expectation	1. Go to http://localhost:5173/ 2. Scroll Down to footer 3. Click on Twitter icon	Passed
019. Testing Facebook icon	The page will directed to the Facebook page	Found as per expectation	1. follow steps 1-2 from previous 3. Click on Facebook icon	Passed
020. Testing Youtube icon	The page will directed to the YouTube page	Found as per expectation	1. follow steps 1-2 from previous 3. Click on the Youtube icon	Passed
021. Testing Contact	Contact Details should show	Found as per expectation	1. Go to http://localhost:5173/ 2. Scroll Down to footer	Passed

022. Testing Google map location	The page will directed to Google map and show the exact location	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. scroll down to footer 3. Click on “view larger map” for a better view 	Passed
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Functional Testing

Test Case	Expected Result	Actual Result	Reproducing Steps	Test Result
023. Testing Shops	The page will directed to the Shop page	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. Click on any shop 	Passed
024. Testing Categories in Shops	Product will shown inside individual category	Found as per expectation	<ol style="list-style-type: none"> 1. follow steps 1-2 from previous 3. Click on Category Items in left side bar 	Passed
025. Testing Add to Cart Button	A toast notification will appear	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. Click on Food Stalls 3. Click on any shop 4. Click on any category 5. Click on “Add to Cart” button from products 	Passed
026. Testing to check User reviews	User Reviews should appear on screen	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 	Passed

			<ol style="list-style-type: none"> 2. Click on products 3. Click on any shop 4. Click on any category 5. Click on “Click to see Reviews” button from product 	
027. Testing to give user review	A box will open to write review	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. Click on Profile 3. Click on “product Orders” 4. Click on “Product Food” 	Passed
028. Testing increase Quantity	Quantity of product and price will increase if + pressed	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. Click on “Cart” 3. Click on “+” to increase 	Passed
029. Testing decrease Quantity	Quantity of product and price will decrease if – pressed	Found as per expectation	<ol style="list-style-type: none"> 1. Go to http://localhost:5173/ 2. Click on “Cart” 3. Click on “-” to increase 	Passed

030. Testing Pay Now	Page will directed to Payment form page	Found as per expectation	<ol style="list-style-type: none"> Go to http://localhost:5173/ Click on “Cart” Click on “Pay Now” 	Passed
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5.18 Automation Testing

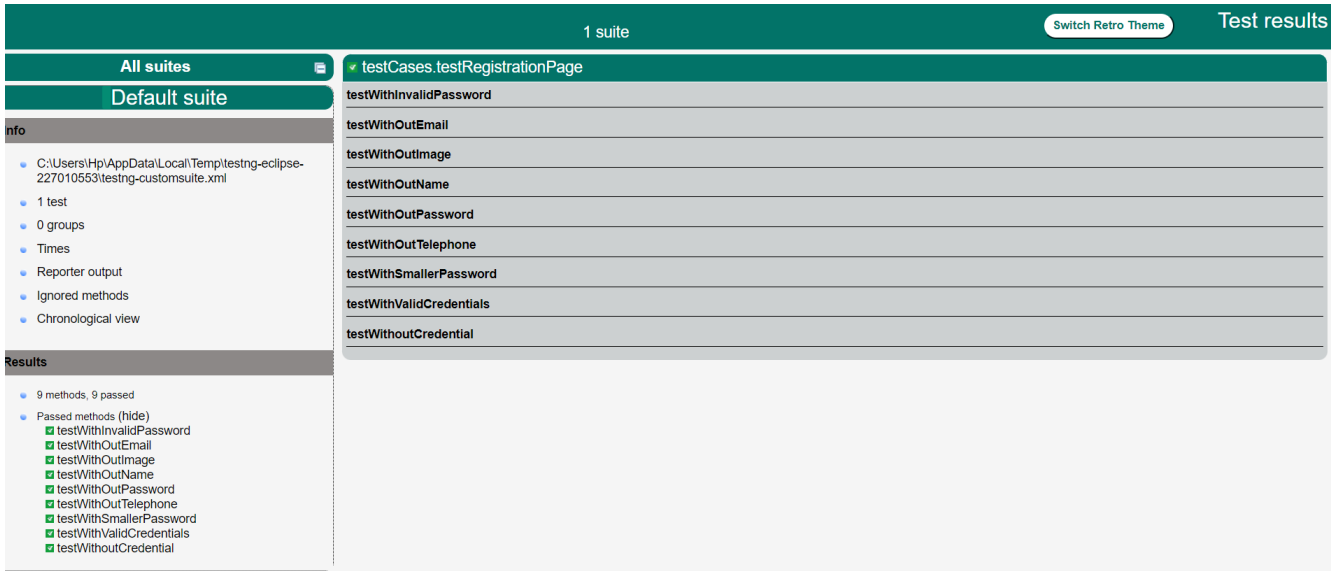
5.19 Log in test report

The screenshot displays a test report for a suite named "testCases.testLogin". The interface includes a sidebar with "All suites" and "Default suite" sections. The "Info" section shows the test suite path and configuration. The "Results" section indicates that 4 methods were passed. The main content area lists the following test methods:

- testLoginWithValidCredential
- testLoginWithoutEmail
- testLoginWithoutEmailAndPasswrd
- testLoginWithoutPassword

5.17 Login Test Report

5.20 Registration Test Report



5.18 Registration Test Report

5.21 Test Schedule:

Test Phase Time
Testing plan create 1 Week
Unit testing During development time.
Component test During development time.
Testing user interfaces 1 Week
Performance testing 1 Week
Accessibility testing 1 Week

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

An shopping system called TLCommerce Platform has had a significant influence on society, changing how people interact with cloth and technology. This ground-breaking platform has improved our daily lives in several ways, including:

Product Experimentation: By offering a broad and varied selection of products from all over the world, TLcommerce websites promote product experimentation. Users' product horizons are broadened and a deeper appreciation for other uses by the ease with which they may get and test out different items.

Preservation of Product Heritage: Specialty cloths are frequently passed down through generations. Using this platform, people may share and preserve the product customs of their families. It acts as a digital archive for product heritage, making sure that special products don't disappear over time.

Community Building: Websites that share products foster active online communities of shopping lovers. Users may connect with people who share their love of shopping, offer advice, and develop deep relationships based on their shared enthusiasm for for shopping This promotes a feeling of unity and belonging.

Healthy habit: To assist people in making educated proper selections, several item delivery websites provide filters and nutritional data. Encouraging balanced and nourishing item helps to promote product and well-being.

Reduced Money Waste: Having access to a variety of products enables consumers to make the most of the ingredients at hand and thus reduces money waste. Promoting thoughtful consumption and lowering the environmental effect of product production, is in line with sustainability objectives.

Entrepreneurship and Income Generation: For some people, posting their favorite products online might open up new business prospects. By teaching lessons, selling products or even founding product enterprises, they may make money off of their abilities.

Platforms for sharing views: are instructional resources that aid in the development of people's earning abilities. Beginners can pick up tips from seasoned cloths and eventually advance in the shop.

Time and Convenience: By providing easy-to-follow products with detailed ingredient lists

and directions, these platforms make product planning simpler. Users benefit from time savings
Energy Use: Power is used to run the data centers and web servers that host the platform. These processes can have a sizable carbon footprint, particularly if the platform is subjected to heavy traffic and data storage needs.

Delivery Services: Some shopping websites include integrations with product delivery services, which might result in more packaging waste and transportation-related carbon emissions.

Use of Digital Devices: If not properly disposed of or utilized, the growing use of digital devices to access products and instructions can increase electronic waste and energy consumption.

In conclusion, a shopping platform has transformed society by promoting healthy shopping conserving product traditions, forming communities, minimizing money waste, increasing convenience in our everyday lives, fostering skill development, and offering economic possibilities. The common language of cloth has expanded our enormous experiences and brought people closer.

6.2 Impact on Environment

Optimistic Effects

- **Reduced money Waste:** Users may make the most of their ingredients by using product-sharing networks, which helps to reduce money waste. products may be found that make use of goods that people already own, decreasing the need for further shopping runs and the possibility that expired product would wind up in landfills.
- **Promotion of Sustainable Ingredients:** Numerous shopping websites advocate the use of organic, sustainably produced, or locally obtained ingredients. This may inspire customers to choose ecologically responsible options when they buy product.
- **Less Paper Consumption:** Printing product books and product cards traditionally use a lot of paper and link. By removing the need for tangible resources, a digital platform lowers its environmental impact.

Adverse effects

- **Energy Use:** Power is used to run the data centers and web servers that host the platform. These processes can have a sizable carbon footprint, particularly if the platform is subjected to heavy traffic and data storage needs.

- **Delivery Services:** Some shopping websites include integrations with product delivery services, which might result in more packaging waste and transportation-related carbon emissions.
- **Use of Digital Devices:** If not properly disposed of or utilized, the growing use of digital devices to access products and instructions can increase electronic waste and energy consumption.

Developers may emphasize energy-efficient server architecture, encourage users to use sustainable product methods and ingredients, and limit the detrimental environmental effects of a shopping platform. Users can also practice eco-friendly behaviors.

6.3 Ethical Aspects

User Privacy: It is crucial to respect users' privacy. Only essential user data should be collected by the platform, and opt-in options for sharing personal data should be provided. Building trust requires protecting user data from illegal access and maintaining safe transactions.

Ownership of Content: The owners intellectual property rights must be respected by the site. Promote the upload of creative products from users and make the conditions of usage explicit. To preserve the integrity of the platform and the rights of artists, discourage plagiarism and copyright violation.

Ensure that the platform is inclusive and accessible to a wide range of users. Create it with accessibility for those with impairments and with content moderation to stop inappropriate language or hate speech. Encourage a diverse and hospitable community.

Transparency: Be open and honest about the platform's workings, including the algorithms used for advertising, user reviews, and content suggestions. Avoid deceptive tactics that put user welfare last and profit first.

Promote ethical shopping and shopping practices to encourage healthy shopping and safety. Avoid endorsing shopping regimens, excessively decadent dishes. Users should be encouraged to offer safety and dietary advice.

Establish unambiguous community rules that prohibit bullying, harassment, and the spread of false information. Spend money on content moderation that works to create a courteous and secure environment for all users.

Encourage environmentally friendly ingredients and shopping techniques. Encourage eco-friendly shopping techniques and decrease money waste. Encourage ethical ingredient sourcing.

Prioritise data security to safeguard user information. Update security measures often to stop

data breaches, and notify users right once if any do occur.

Advertising and Sponsored material: To promote openness, clearly identify adverts and sponsored material. Avoid using dishonest or misleading advertising tactics.

Accountability and User Feedback: Create systems for user feedback and accountability. Respond quickly to user complaints and exhibit a dedication to raising the ethical standards of the platform.

In conclusion, a "Shopping Platform" online application should put user privacy, content ownership, inclusivity, transparency, healthy habits, community standards, sustainability, data security, responsible advertising, and accountability at the top of the list. The platform may promote a good and responsible culinary community and win the users' confidence and loyalty by resolving these ethical issues.

6.4 Sustainability Plan

The functioning of our shopping platform and its effects on the environment and society are both devoted to sustainability. Here is our strategy:

- **Energy Efficiency:** To lessen our carbon footprint, we will invest in servers and data centers that use less energy. The platform's functioning will consume less energy unnecessarily if a code optimization method is implemented.
- **Green Hosting:** By collaborating with environmentally conscious hosting companies, we'll make sure that our web application operates on servers that are fuelled by renewable energy sources like solar or wind energy.
- **Reducing Money Waste:** We'll encourage sane shopping and sharing techniques to address the sustainability of product. Users will be urged to advise on cutting down on money waste and finding inventive ways to use leftovers.
- **Locally Sourced Products:** By encouraging people to contribute products that employ regional products, you may help out your community's owners and lessen the other hassels..
- **Digital productbook:** We'll create a feature for a digital productbook that will eliminate the need to print products on paper and encourage our users to adopt a paperless shopping culture.

- **Community Engagement:** We'll hold contests and activities on our platform that emphasize healthy shopping and active lifestyles. To increase awareness, we'll work with sustainability groups.
- **User Education:** We'll provide materials and articles about environmentally friendly product methods and the effects of various components. Users will have simple access to these.
- **product Loop:** Consistently seek input from our users and the larger community on how to strengthen our commitment to sustainability and make our platform more environmentally friendly.
- **Donations:** As part of our commitment to good corporate citizenship, a portion of our revenues will be donated to programs that support sustainable product systems and environmental projects.
- **Impact measurement:** We will track and report on our sustainability indicators regularly, such as the reduction of energy use, the decrease of money waste, and user participation in sustainable activities.

We acknowledge the significance of sustainability in the cloth industry in our shopping platform. We hope to promote good changes toward a more sustainable and responsible future for the cloth business by adhering to this sustainability plan, which we hope will both unit shopping fans and inspire positive change.

CHAPTER 7 CONCLUSION

7.1 Project Summary

The "TLCommerce" Online shopping platform is an innovative platform designed to revolutionize the shopping experience within the country area. This user-centric application serves as a product companion, seamlessly connecting shopping enthusiasts, local eateries, and administrators within the community.

Key Features:

- **Effortless Product Ordering:** Users can easily place orders for their favorite items complete with detailed menus, step-by-step instructions, and enticing images.
- **Product Diversity:** A diverse array of products is at users' fingertips, with sophisticated search criteria inspiring unique shopping journeys.
- **Community Engagement:** The platform fosters social networking, allowing users to follow preferred eateries, comment on products, and engage in lively discussions.
- **Reviews:** Users can contribute to the community by providing ratings and reviews, enhancing the overall shopping experience for everyone.
- **Automated Shopping Lists:** The system simplifies cloth shopping by generating automated shopping lists based on selected products.

Benefits:

- **Community Building:** "TLCommerce" fosters a sense of community within the country area, bringing together individuals with diverse backgrounds.
- **Inspiration:** Users can draw inspiration from a vast database of products, sparking their creativity.
- **Convenience:** Daily tasks like organizing products, creating plans, and needed shopping are streamlined for user convenience.
- **Skill Development:** Culinary enthusiasts of all levels can enhance their skills through shared knowledge and exposure to new techniques.

The "TLCommerce" Online shopping System seamlessly connects individuals through their

shared love of product, contributing to a vibrant and connected shopping experience. It promises to be the go-to resource for anyone looking to explore diverse shopping delights, share their enormous experiences, and delight in the joy of discovering new flavors. Join us on this exciting shopping journey!

7.2 Scope for Further Development

Looking ahead, "TLCommerce" envisions a transformative trajectory as it strives to redefine and elevate the entire experience. Inspired by the industry prowess of shopping behemoths like Amazon and Alibaba our app proposes an ambitious agenda that combines innovation, personalization, and community engagement.

The integration of cutting-edge technologies, specifically artificial intelligence (AI) and machine learning (ML), is central to our vision. Our goal is to create an intuitive platform that not only expedites product experience but also curates personalized shopping experiences, drawing inspiration from the sophisticated algorithms of industry leaders. Consider a future in which the app not only remembers your favorite orders but also anticipates your cravings, making each dining experience truly personalized.

Geographic expansion emerges as a strategic initiative, mirroring our esteemed counterparts' successful trajectories. "TLCommerce" hopes to expand its reach beyond the country area by establishing a regional shopping network that crosses borders. This expansion is about connecting communities through a shared love of diverse and delightful dining experiences, not just delivering cloths.

In our future endeavors, environmental sustainability takes center stage. Following the eco-friendly practices established by industry leaders, we intend to introduce sustainable packaging options and cultivate collaborations with environmentally-conscious eateries. Furthermore, we are committed to forming partnerships with local start ups and producers to promote a reliable ethos that promotes freshness and supports local economies.

"TLCommerce" could become more than just a delivery app in the future. We envision the platform evolving into a comprehensive shopping hub within shopping communities, drawing inspiration from industry leaders. Live product demonstrations, virtual ordering experiences, and engaging community events are planned to enhance the overall campus lifestyle.

User engagement remains a cornerstone of our approach, which we learned from successful platforms' best practices. We are committed to actively seeking user feedback, ensuring an ongoing dialogue that keeps "TLCommerce" in tune with the shopping community's evolving preferences and needs.

In charting our future course, "TLCommerce" aspires to set new standards in shopping rather than simply following industry trends. The app promises a future where every product is an experience, every delivery is a connection, and every user is an integral part of a vibrant shopping community, with a focus on innovation, sustainability, and user satisfaction.

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