

**School of Engineering Technology and Applied Science**  
**Mobile Application Development Project**

**MAPD-726**

**Project: SNAPIFY**

**Submitted to: Prof. Vinayagathas Vaithilingam**

**By: Team 1**

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## 1. Introduction

The Snapify E-commerce Platform is a dynamic project that aims to build a responsive and user-friendly e-commerce platform. Snapify. envisions a full solution built in Flutter using Agile techniques. The platform will have a User Dashboard for a streamlined shopping experience and an Admin Dashboard for effective products, focusing on the world of footwear for both men and women.

### 1.1. Key highlights

- Fashion forward shoe collection: Dive into a world of footwear fashion as Snapify curates an extensive collection of shoes, catering to the diverse tastes and preferences of both men and women. From trendy sneakers to elegant heels, we offer a comprehensive range to suit every style.
- Required device/Device compatibility: Experience the convenience of shopping with our user-centric platform, designed and built using Flutter technology. Our User Dashboard ensures a seamless and visually appealing interface, providing an immersive journey for shoppers on both iOS and Android devices.

### 1.2. Scope

- User and admin dashboard implementation: Develop an intuitive and responsive user interface within the Snapify mobile app, allowing customers to seamlessly browse, select, and purchase shoes. Created a robust administrative interface within the Snapify platform for efficient management of products, user and sales reports [1] [3].
- Database Integration: Integrate mongodb database to securely store and retrieve product data, user information, and transaction details.
- Security testing: Conduct thorough security testing to identify and address vulnerabilities, ensuring a secure online shopping environment.
- Performance optimization: Optimize the performance of the Snapify platform to ensure quick load times and a smooth user experience. [2]

## 2. Background and strategic fit

The strategic aim of developing the Snapify E-commerce Platform was to address the growing demand for a responsive and user-friendly e-commerce solution in the footwear industry. Snapify recognized an opportunity to capitalize on the increasing trend of online shopping, particularly in the fashion and footwear segments, by offering customers a curated selection of shoes and a seamless shopping experience through a mobile application.

The decision to develop the Snapify app was driven by several factors:

1. **Market demand:** There was a clear demand for a comprehensive e-commerce platform specializing in footwear for both men and women. Market research indicated a growing preference among consumers for mobile shopping experiences, making the development of a mobile app a strategic choice to capture this market segment [1].
2. **Technological Advancements:** The availability of innovative technologies, such as Flutter for cross-platform mobile development, presented an opportunity to build a modern and feature-rich application that could deliver a consistent user experience across iOS and Android devices [1].

### **Effect on product development:**

The development of the Snapify app had a significant impact on product development, influencing various aspects such as design, functionality, and user experience. By leveraging cutting-edge technologies and adhering to best practices in e-commerce platform development, the team was able to create a product that met the highest standards of quality and performance [2].

The app's features, including the fashion-forward shoe collection, Flutter-powered user dashboard, and efficient admin dashboard, were carefully designed and implemented to align with the business objectives. Regular communication and collaboration with the team ensured that their feedback and requirements were integrated into the development process, resulting in less bugs and more ideas.

Overall, the strategic decision to develop the Snapify app was driven by market demand, technological advancements, and the client's vision [1].

### 3. Management structure

#### 3.1. Project life cycle

The project followed an Agile development methodology, utilizing iterative sprints to deliver incremental functionality. Each sprint was typically last one week, during which specific tasks and deliverables were identified, developed, and tested. Regular sprint planning, review, and retrospective meetings were conducted to ensure effective progress and continuous improvement throughout the project.

#### 3.2. Roles and responsibilities

Report Sections/ Components	Team Members Contribution	Comments
1. Roles and responsibilities	Bhargav	
2. Team goals and a business (project) objective	Bhargav	
3. Background and strategic fit	Rahul	
4. Assumptions	Rahul	
5. User Story description	Kajal	
6. Solution details	Kajal	
7. Diagrammatic representation of the solution	Bhargav	
8. Source code document:	Khanjan	
9. Quality assurance documentation	Khanjan	
10. Product or App: User documentation	Bhargav	

Table 1: Roles and responsibilities

### 3.3. Team goal and business objective

The team goal is to deliver a responsive and user-friendly e-commerce platform, focusing on footwear for both men and women, meeting the following business objectives:

- Provide customers with a seamless and visually appealing shopping experience [1].
- Empower administrators to efficiently manage the product catalog and track customer trends [1].
- Ensure the platform's scalability, maintainability, and security to meet evolving business needs and industry standards [1].

#### 4. Assumptions

- Effective team collaboration and communication will be maintained throughout the project.
- Necessary resources, including hardware, software, and skilled team members, will be consistently available.
- The selected technology stack (Flutter for mobile development, React for the API, and MongoDB for the database) is suitable for the project's requirements.
- Each sprint will progress smoothly, with team members fulfilling their assigned roles and responsibilities.

## 5. User story description

- A. User sees payment gateway and proceeds to enter payment details:
  - As a user of the Snapify E-commerce Platform, I want to seamlessly proceed to the payment gateway after selecting my desired product, so that I can enter my payment details and complete the purchase process without any interruptions. This feature enhances the user experience by streamlining the checkout process and reducing friction during payment.
- B. User enters payment details and proceeds to purchase the product:
  - Upon reaching the payment gateway, I, as a user, want to be able to securely enter my payment information, including credit card details or other payment methods, and proceed to finalize the purchase of the selected product. This step ensures that I can confidently complete my transaction and receive the desired item in a timely manner.
- C. User makes payment and completes the purchase to see all orders:
  - Once I have entered my payment details and confirmed the purchase, I expect to receive a confirmation of the successful payment and access to my order history. This feature allows me to track my past purchases, view order details, and monitor the status of current orders, enhancing transparency and convenience in my shopping experience.
- D. Admin views all user lists to manage user accounts efficiently:
  - As an administrator of the Snapify E-commerce Platform, I need to be able to access a comprehensive list of all registered users to efficiently manage user accounts. This functionality enables me to view user details, monitor account activities, and address any account-related issues promptly and effectively.
- E. Admin edits user details to update user information as needed:
  - In my role as an administrator, I require the ability to edit user details, such as name, contact information, and shipping address, to ensure that user profiles remain accurate and up-to-date. This feature allows me to accommodate user requests, resolve account discrepancies, and maintain data integrity within the platform.



F. Admin deletes user accounts to remove unwanted user accounts:

- As an administrator, I have the responsibility to manage user accounts and ensure the security and efficiency of the platform. In instances where user accounts need to be removed, such as due to inactivity or policy violations, I should be able to delete these accounts securely and permanently, maintaining the integrity of the user database and safeguarding the platform's resources.

G. Admin generates comprehensive reports including category-wise and product sale reports, along with daily, monthly, and weekly sales analysis:

- As an administrator, I require access to comprehensive reports to analyze sales performance and make informed business decisions. These reports should include detailed information on category-wise sales, product performance, and sales trends over specific time periods. By leveraging this data, I can identify opportunities for growth, optimize product offerings, and strategize marketing campaigns effectively.

## 6. Quality Assurance

### 6.1. Test case

Below is the figure of test case and description how we performed test cases:

Test Case Id	Test Case Description	Test steps	Test Data	Expected Result	Actual Result	Pass / Fail	Tester Name(s)
TC009	Verify access to report generation functionality for admin	1. Log in as an admin user. 2. Scroll to the reports section.	1. Enter user email and password: khanjan@gmail.com and Khanjan@123 2. Navigate to reports section	Admin can access the report generation functionality.	Admin will be able to see the reports	Pass	Kajal
TC010	Verify generation of monthly sales analysis report	1. Navigate to the monthly sales analysis report generation option. 2. Select desired month and year.	Desired month: March Desired year: 2024	Monthly sales analysis report is generated for the selected month and year.	Monthly sales analysis report is successfully generated.	Pass	Kajal
TC011	Verify generation of weekly sales analysis report	1. Navigate to the monthly sales analysis report generation option. 2. Select desired week and month.	Desired week: 2 Desired month: March	Weekly sales analysis report is generated for the selected week and month.	Weekly sales analysis report is successfully generated.	Pass	Kajal

Figure 1: Test Case

1. Requirement Analysis: We reviewed the user story and identified the specific functionality to be tested, which in this case was the display of the payment gateway during checkout.
2. Test Design: Based on the requirements, we designed the test case to include preconditions, test steps, expected results, and actual results.
3. Test Execution: We followed the test steps outlined in the test case and navigated to the checkout page to verify the presence of the payment gateway.
4. Result Verification: We compared the actual results with the expected results to ensure that the payment gateway was displayed correctly.
5. Defect Reporting: If any issues were encountered during testing, we logged them in our defect tracking system for further investigation and resolution.
6. Documentation: Finally, we documented the test results, including any defects found and their status, in the test management tool for reference and future regression testing.

6.2. Functional Testing

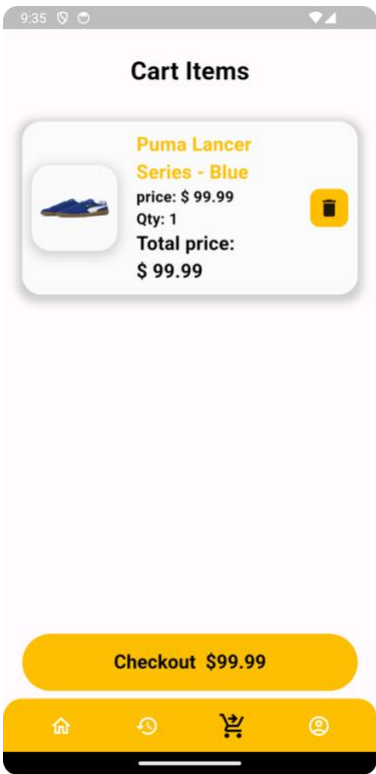


Figure 2: Testing checkout

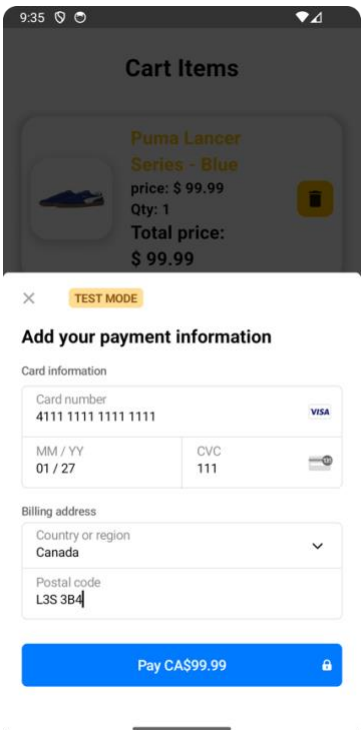


Figure 3: Checkout payment details

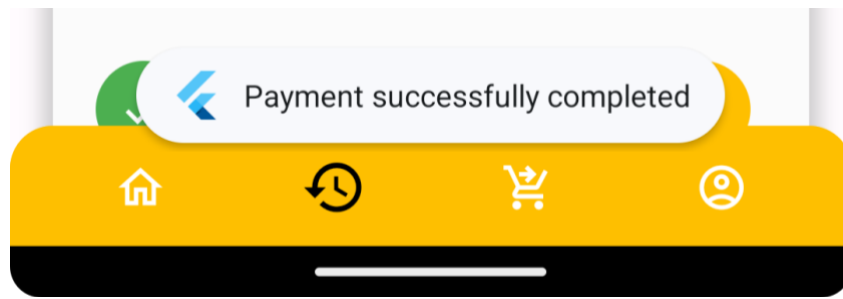


Figure 4: Payment success

1. Verify that the checkout button is accessible and functional.
2. Test the navigation flow from the product selection page to the checkout page.
3. Ensure that the payment gateway is displayed prominently on the checkout page.
4. Validate that the payment gateway supports various payment methods, including credit/debit cards, etc.
5. Confirm that the payment gateway provides clear instructions and prompts for entering payment details.
6. Test the functionality of the "Proceed to Payment" button to proceed to the payment step.
7. Check for any error messages or issues that may prevent the payment gateway from loading properly.

## 7. Recommendation

1. **Target Audience Identification:** Identify the target audience for the Snapify app, focusing on demographics, interests, and shopping behaviors relevant to the footwear industry.
2. **Brand Positioning:** Develop a unique value proposition and brand identity that differentiates Snapify from competitors and resonates with the target audience.
3. **Online Presence:** Establish a strong online presence through social media channels, a dedicated website, and online advertising to increase visibility and attract potential users.
4. **Content Marketing:** Create engaging and informative content, such as blog posts, videos, and infographics, to showcase the benefits of using Snapify and educate users about footwear trends and fashion tips.
5. **Influencer Collaborations:** Collaborate with fashion influencers and bloggers to promote Snapify and reach a wider audience within the fashion and footwear community.
6. **Partnerships and Collaborations:** Form partnerships with fashion brands, retailers, and influencers to expand the product catalog and enhance the app's appeal to users.
7. **Promotions and Discounts:** Offer promotional deals, discounts, and loyalty programs to incentivize users to download the app, make purchases, and become repeat customers.
8. **Analytics and Optimization:** Use analytics tools to track user engagement, app downloads, and sales performance, allowing for data-driven decision-making and optimization of marketing strategies.

## 8. UML Diagram

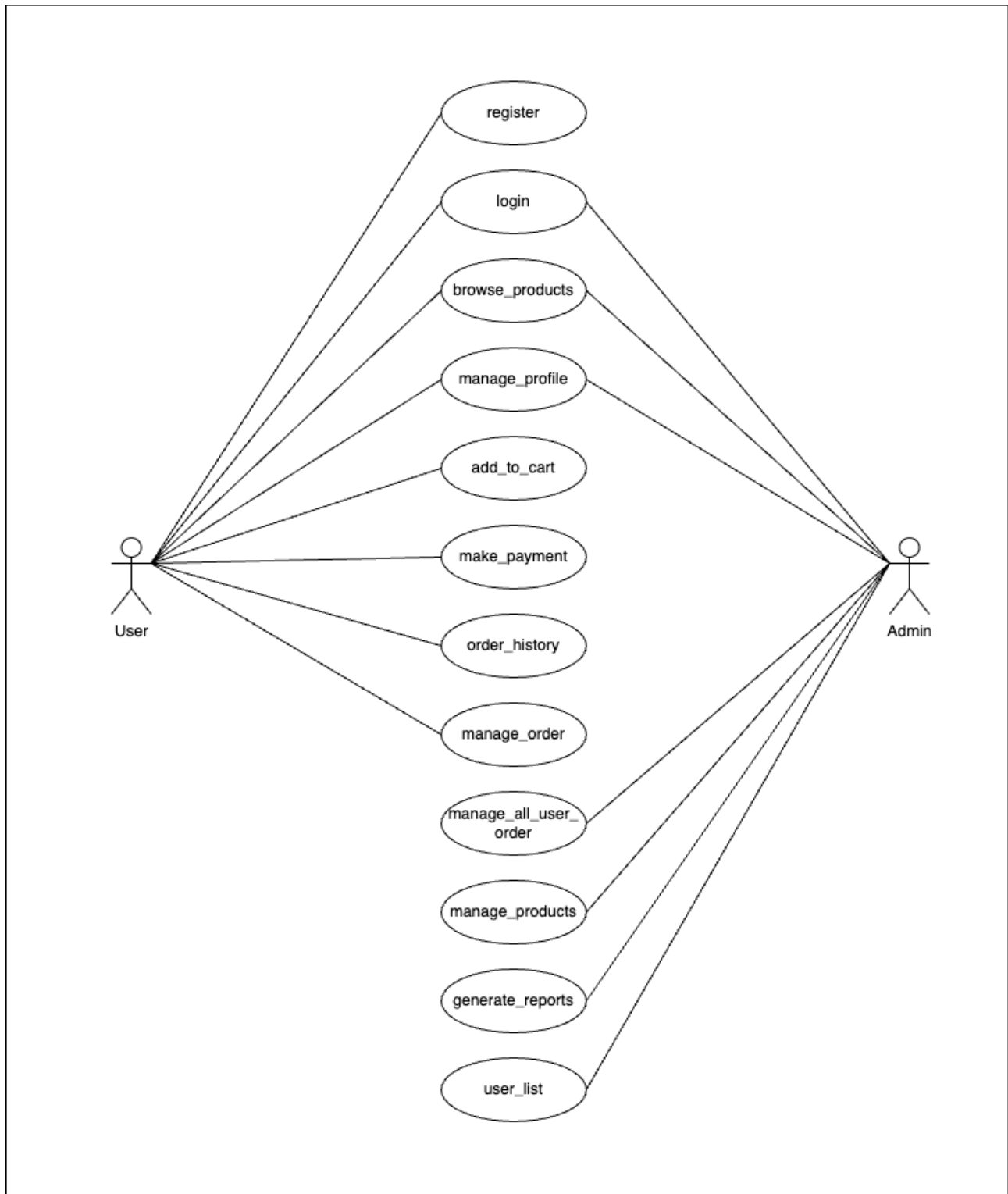


Figure 5: use case diagram

## 9. Bibliography

- [1] A. Naseer, "E-Commerce application with Flutter framework".
- [2] S. Kuzmanovic, "SFU," Aug 2010. [Online]. Available: <https://summit.sfu.ca/item/13007>.
- [3] S. O. Mintah, "BUILDING AN E-COMMERCE WEBSITE FOR A TRADITIONAL RETAIL FOOTWARE SHOP (ES-STORE)," 2019.