**Sri Lanka Institute of Information Technology (SLIIT)**  
**Faculty of Computing**

**Module:** Human-Computer Interaction (SE2082)  
**Assignment:** Group Assignment 01  
**Title:** Designing a Mobile Application to Empower Sri Lanka’s SME Sector  
**Submission Date:** [Insert Date]

**Submitted By:**

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# Declaration

We, the undersigned, declare that this assignment is our original work and has not been copied or submitted for any other academic purposes. Any content from other sources has been appropriately cited and referenced. We understand that plagiarism is a serious academic offense and have ensured that this submission adheres to the academic integrity guidelines of SLIIT.

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Date: [Insert Date]

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# Introduction

## 1.1 Overview

Provide a brief introduction to the assignment, including the importance of SMEs in Sri Lanka and the role of HCI in designing user-friendly mobile applications.

## 1.2 Objective

Clearly state the objective of the project, emphasizing the design and usability improvements aimed at empowering SMEs.

## 1.3 Selected SME and Business Context

Describe the SME chosen for the project, including its industry, services/products, target customers, and key business challenges.

# 2. User Research & Conceptual Design

## 2.1 User Research

Describe the research methods used (interviews, surveys, competitive analysis) and summarize key findings about SME needs and user behaviors.

## 2.2 User Personas

Provide at least two user personas representing SME owners and customers, including their goals, pain points, and expected interactions with the app.

## 2.3 User Stories and Scenarios

List key user stories and interaction scenarios that illustrate how users will engage with the mobile application.

# 3. Low-Fidelity Prototype

## 3.1 Sketches & Wireframes

Include hand-drawn sketches and wireframes for core screens, explaining the design choices.

## 3.2 User Journeys & Flows

Describe how users will interact with the app, providing a diagram of user flows.

## 3.3 Design Decisions

Justify layout choices, navigation patterns, and interaction design based on user research and SME requirements.

# 4. High-Fidelity Prototype

## 4.1 Prototype Development

Explain the development of the high-fidelity prototype using Figma, including key interactive features.

## 4.2 UI Design & Branding

Discuss the visual identity, typography, color scheme, and UI components that align with the SME’s branding.

## 4.3 Accessibility & Inclusive Design

Describe how accessibility standards were incorporated, including readability, touch-friendly UI, and cultural considerations.

## 4.4 Essential Features & Functionality

List core app features, such as:

* User Authentication
* Product/service listings
* Customer interaction options
* Business profile management
* Search and filtering capabilities
* Shopping cart
* Payment handling

# 5. Usability Testing & Design Analysis

## 5.1 Usability Testing Process

Describe the testing process, including test users, tasks performed, and methods used (moderated/unmoderated testing).

## 5.2 Observations & Findings

Summarize key usability issues, pain points, and user feedback collected during testing.

## 5.3 Analysis of Findings

Categorize usability issues (critical, moderate, minor) and discuss common challenges faced by users.

## 5.4 Design Refinements

Propose improvements to address usability issues, such as:

* Enhanced navigation
* Improved visual hierarchy
* Simplified interactions
* Other……

## 5.5 Iteration & Retesting

Describe the process of incorporating changes based on feedback and re-evaluating the design.

# 6. Hand-Off Report

## 6.1 Design Specifications

Provide details about UI components, typography, color schemes, and layout guidelines for developers.

## 6.2 Interactive Prototype Link

Include a link to the interactive Figma prototype for reference.

## 6.3 Developer Guidelines

Outline key development considerations, such as responsiveness, performance optimization, and accessibility compliance.

## 6.4 API & Backend Requirements

Specify any API integrations or backend functionalities required for the application.

## 6.5 Version Control & Collaboration

Document the workflow for version control (e.g., GitHub, Bitbucket) and collaboration practices among designers and developers.

## 6.6 Proposed Technology Stack

**Frontend:**

* Framework:
* UI Library:
* State Management:

**Backend:**

* Framework:
* Database:
* Authentication:
* API:

**Hosting & Deployment:**

* Google Cloud / AWS for backend services
* Firebase Hosting for frontend deployment
* CI/CD: GitHub Actions / Jenkins

**Other Tools & Integrations:**

* Payment Gateway:
* Push Notifications:
* Analytics:

# 7. Publishing Plan for Google Play & Apple App Store

## 7.1 Preparing for Deployment

* Ensure the app meets platform guidelines (Google Play & Apple App Store policies).
* Optimize performance, security, and accessibility.
* Test thoroughly on real devices and emulators.

## 7.2 Google Play Store Submission

* Create a Google Developer account.
* Generate a signed APK/AAB file.
* Set up Play Console listing (app name, description, screenshots, video, category, contact details).
* Configure pricing and distribution settings.
* Upload APK/AAB and complete the review process.
* Monitor app performance and respond to feedback.

7.3 Apple App Store Submissio**n**

* Register as an Apple Developer.
* Generate an iOS build using Xcode and TestFlight.
* Set up App Store Connect listing (app name, description, screenshots, privacy policy, support details).
* Submit the app for Apple’s review and approval process.
* Address any required changes and resubmit if necessary.
* Monitor app analytics and updates post-launch.

7.4 Post-Launch Maintenance

* Regularly update the app based on user feedback.
* Monitor app analytics to improve performance and engagement.
* Ensure compliance with new platform updates and policies.

# 8. Conclusion & Future Work

Summarize the project’s impact, key takeaways, and potential future enhancements.

# 9. References

List any references used for research, HCI principles, or supporting materials.

# 10. Appendix

Attach supplementary materials, such as:

* Full survey/questionnaire data
* Additional screenshots of wireframes/prototypes
* Raw usability testing feedback