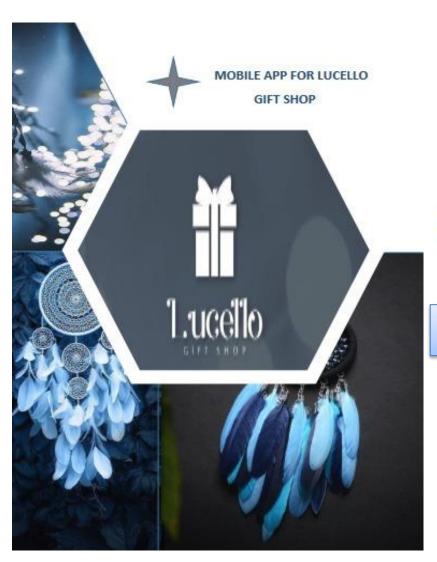Name: Group 6

Student Reference Number:

Module Code: PUSL2023	Module Name: Mobile App Development (23/SP/M)

Coursework Title: PUSL2023 Project Proposal Submission

Deadline Date:	Member of staff responsible for coursework:

Programme: BSc (Hons) Software Engineering

Please note that University Academic Regulations are available under Rules and Regulations on the University website www.plymouth.ac.uk/studenthandbook.

Group work: please list all names of all participants formally associated with this work and state whether the work was undertaken alone or as part of a team. Please note you may be required to identify individual responsibility for component parts.

Gardiyehewa Fonseka: 10899518   Welapura Padmasiri: 10899641
Sooriyabandara Sooriyabandara: 10900372   Hanshini Weerakkodi: 10899723
Pana Nimnanjalee: 10899638   Hewadu Jayaweera: 10900378

We confirm that we have read and understood the Plymouth University regulations relating to Assessment Offences and that we are aware of the possible penalties for any breach of these regulations. We confirm that this is the independent work of the group.

Signed on behalf of the group: Nimnanjalee

Individual assignment: *I confirm that I have read and understood the Plymouth University regulations relating to Assessment Offences and that I am aware of the possible penalties for any breach of these regulations. I confirm that this is my own independent work.*

Signed :

Use of translation software: failure to declare that translation software or a similar writing aid has been used will be treated as an assessment offence.

I *have used/not used translation software.

If used, please state name of software…………………………………………………………………

Overall mark _____%   Assessors Initials _____   Date_____

*Please delete as appropriateSci/ps/d:/students/cwkfrontcover/2013/14

MOBILE APP FOR LUCELLO GIFT SHOP

UNIVERSITY OF PLYMOUTH

NSBM GREEN UNIVERSITY TOWN

Group 6

Lucello Gift Shop Mobile App

Name	Index no.	Outlook mail	Contact no.
Gardiyehewa Fonseka	10899518	10899518@students.plymouth.ac.uk	0740336004
Pana Nimnanjalee	10899638	10899638@students.plymouth.ac.uk	0717198685
Hewadu Jayaweera	10900378	10900378@students.plymouth.ac.uk	0763712902
Welapura Padmasiri	10899641	10899641@students.plymouth.ac.uk	0707348173
Sooriyabandara Sooriyabandara	10900372	10900372@students.plymouth.ac.uk	0761906984
Hanshini Weerakkodi	10899723	10899723@students.plymouth.ac.uk	0769617313

Table of Contents

Background

At the beginning of 2020 we decided to set up our mobile app for Lucello gift shop. Handmade gift cards, gift boxes, teddy bears, dream catchers etc are available for sale in this trading company. From this, any customer can buy handicrafts according to their choice. Such orders can be placed with this trading company. Customers can provide the place and time to deliver the gift. The purpose of this is to save the customer's time and money significantly and not to miss our customer's expectations. Also, the customer can buy the goods here at an easy price. There are three ways to purchase items here. It is possible to buy goods already made in the company, to purchase certain components that are customized (e.g. available in different colours) and to buy products that are unique to the customer, tailored to the customer's new ideas. However, the company's information is still known only the people around the company. The reason for this is that the owner has only used outdated business tactics. Accordingly, the owner of the company now wants to use new technology for the expansion of the company.

Problem Definition

Relying on outdated business tactics and not expanding beyond the surrounding community, Lucello Gift Shop faces limits to its growth. Despite offering a wide range of handmade products and services as per the client's wishes, the company's reach is limited and thus hinders the development of the business. Lack of innovative technological solutions hinders the company's ability to effectively scale and compete in the market. Therefore, the main issues can be summarized as follows:

- Limited visibility: Company information is known only to people around the area and close to the owner, resulting in limited sales and growth of the business.
- Outdated Business Tactics: Because the owner runs the business based on traditional methods of business operations, it hinders the company's ability to identify market trends and adapt to customer preferences.
- Lack of technology integration: Lack of a mobile app, e-commerce platform and digital marketing strategy prevents Lucello Gift Shop from leveraging technology to expand its customer base, increase sales and increase efficiency.

Solutions:

- Development of mobile applications and e-commerce platform: Create a user-friendly mobile application and e-commerce website to showcase the company's products, take online orders and expand the customer base beyond the region. Incorporate features like product customization, secure payment options and scheduled deliveries to enhance customer convenience.
- Digital Marketing Strategy: Implement digital marketing tactics such as social media marketing, email campaigns, and online advertising to promote the business's brand name, attract new customers, and improve relationships with existing ones. Use targeted marketing strategies to reach specific customer segments and promote personalized products.
- Partnerships and Collaborations: Form partnerships with local artisans, designers, or allied businesses to diversify product offerings and reach new customer segments. Collaborate with integrated marketing initiatives and cross-promotion campaigns to promote the brand and attract a wider audience.
- Training and Education: Provide training and education to owner and staff members on new technology solutions and modern business strategies. Innovate and continuously study to adapt to changing market and market competition and stay ahead of competitors.

By implementing these solutions, Lucello Gift Shop will be able to overcome its current challenges, expand market presence to meet future goals, and achieve sustainable growth in the competitive handicraft industry.

Scope of the Project

- Mobile App Development: Design and development of a user-friendly, mobile app compatible with both iOS and Android platforms for Lucello Gift Shop.
- Product Catalog Integration: Mobile app integration with an extensive product catalog that includes handmade gift cards, gift boxes, teddy bears, dream catchers and other handicrafts for sale.
- Order Placement and Management System: Implement a seamless order placement and management system within the app, allowing customers to easily browse products, place orders and set delivery preferences such as time and location.
- Customization Options: Providing customization options for customers, the ability to customize certain components of products (eg, colors) and order bespoke products tailored to their unique ideas.
- Payment Gateway Integration: Supporting multiple payment methods such as credit/debit cards, mobile wallets and online banking, integrating secure payment gateways to facilitate smooth and secure transactions within the app.
- Delivery Tracking: The inclusion of a real-time order tracking feature enables customers to track the status of their orders from placement to delivery, increasing transparency and customer satisfaction.
- Customer Feedback and Support: Implement an in-app feedback mechanism to collect customer reviews and comments, as well as provide customer support features such as live chat or in-app messaging to resolve queries and resolve issues.
- Data Analytics and Reporting: Integrate analytics tools to monitor app usage, customer behaviour and sales performance, enabling data-driven insights for decision making and strategic planning.
- Marketing and Promotions: Integrating in-app marketing and promotional features to engage customers, such as push notifications for new arrivals, special offers and discounts, as well as loyalty programs to encourage repeat purchases.
- Improved Visibility and Brand Awareness: Implement strategies to improve the visibility of the Lucello brand, including search engine optimization techniques, social media integration and digital marketing campaigns to reach a wider audience and attract potential customers.
- Scalability and future expansion: Design application architecture and infrastructure to accommodate future growth and scale, allowing for the addition of new features, products and functionality as the business expands.
- Compliance and Security: Ensure compliance with applicable regulations such as data protection laws and implement robust security measures to protect customer data and transaction information against potential threats and breaches.
- User Training and Onboarding: Provide thorough user training and onboarding resources to ensure smooth adoption and use of the mobile application by both customers and internal stakeholders, including employees involved in order fulfilment and management.
- Continuous Improvements and Updates: Establish a process for continuous maintenance, updates, and improvements to the mobile application to ensure its continued relevance and effectiveness based on user feedback, technological progress and changing market trends, market competition.
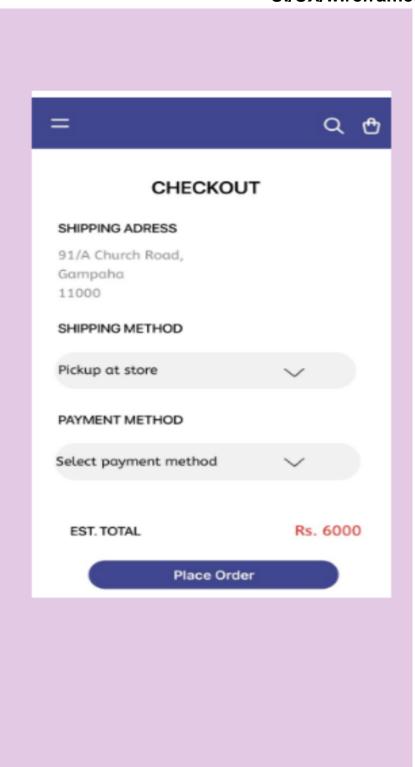
Objectives

- Ease of accessibility: Customers can easily access Lucello's product offerings anytime, anywhere through the mobile app.
- Expand customer reach: Reach a wider customer base beyond the physical store premises by reaching new markets and demographics through digital channels.
- Improve customer experience: Provide customers with a seamless and enjoyable shopping experience, allowing them to browse, customize and purchase products effortlessly through the mobile app.
- Gather customer insights: Collect valuable data and insights about customer preferences, behaviors and buying patterns across the app to inform decision-making and marketing strategies.
- Strengthen Brand Image: Position Lucello as a modern, innovative, and customer-centric brand by leveraging new technology and digital platforms for business expansion.
- Maximize return on investment: Mobile application can be used effectively as a strategic tool for business growth and profitability.

Features of Application

- Product Catalog: Display an extensive catalog showcasing a variety of handmade gift items, including gift cards, gift boxes, teddy bears, dream catchers, etc.

- Search and Filter: Let users easily search for specific products and filter them based on categories, prices and other relevant attributes.

- Customization Options: Provide customization features where customers can personalize certain products by choosing colors, designs, or adding custom messages.

- Order Placement: Giving customers the opportunity to place orders directly through the app, specifying delivery details such as address, date and time preferences.

- Secure Payment Gateway: Integrating a secure payment gateway to facilitate smooth and secure transactions, supporting various payment methods such as credit/debit cards, mobile wallets and online banking.

- Wish List: Allow users to create a wish list of favorite products for future reference or purchase, enhancing the shopping experience and encouraging repeat visits.

- User Accounts: Offer user account registration and login functionality, allowing customers to manage their profiles, view order history, track shipments, and update personal information.

- Customer Support: Provide easy access to customer support services such as live chat, email support, or dedicated helpdesk to resolve queries, issues and provide support.

- Feedback and Reviews: Allow customers to leave feedback, ratings, and reviews for products they have purchased, allowing other users to make informed purchasing decisions and provide valuable insights for product improvement.
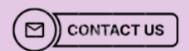
UI/UX/wireframes

Customized gifts

Name:.............

Address:.............

Date:.............

Description about
the gift

CART

gift pack

− 1 +   Rs. 3000

gift pack

− 1 +   Rs. 3000

gift pack

− 1 +   Rs. 2000

Proceed To Checkout

CONTACT US

Name:...........

Email:...........

message:...........

DREAM CATCHERS

VIEW

TEADY
BEARS

VIEW

GIFT
PACKS

VIEW

TWO CIRCLE DREAM CATCHER

RS.490

Add to cart

RAINBOW DREAM CATCHER

RS.500

Add to cart

Login

Sign in to continue.

NAME

PASSWORD

******

Log in

Forgot Password?

Signup !

Create new Account

Already Registered? Log in here.

NAME

EMAIL

PASSWORD

******

DATE OF BIRTH

Select

Sign up

Work matrix and Gant chart

- **Gant chart**

PROCESS	1 WEEK	2 WEEK	3 WEEK	4 WEEK	5 WEEK	6 WEEK
Planning	■					
Requirement Analysis	■					
UI/UX Design		■				
Implementation			■	■	■	
Testing						■
Deployment						■

Planning
- Develop the project timeline and milestones.
- Allocate resources (time, budget, technology).
- Conduct risk assessment and mitigation planning.
- Identify stakeholders and establish communication channels.

Requirement Analysis

- Gather requirements.
- Conduct market research on existing mobile apps and user preferences.
- Identify functional and non-functional requirements Application.

UI | UX Design

- Create wireframes for the user.
- Develop a high-fidelity prototype.
- Finalize UI / UX designs.
- Conduct user research.

Implementation

- Implement front-end components based on the finalized UI / UX designs.
- Develop back-end infrastructure.
- user authentication.

Testing

- Conduct unit testing for certification.
- Perform the integration test.
- Perform system check for validation.

Deployment

- Conducting final round tests.
- Monitor application performance.
- Deploy the application.
- Provide training and support.

Work matrix

Student	workload
Gardiyehewa Fonseka: 10899518	Planning / Introduction
Welapura Padmasiri: 10899641	Requirement Analysis/ Problem Definition
Sooriyabandara Sooriyabandara: 10900372	Implementation/ Scope of the Project
Hanshini Weerakkodi: 10899723	Testing/ Features of Application
Pana Nimnanjalee: 10899638	UI | UX Design/ Objectives
Hewadu Jayaweera: 10900378	Deployment/Wireframe diagrams Work matrix and Gant chart