



Department of Computer Science

This project has been satisfactorily demonstrated and is of suitable form.

This project report is acceptable in partial completion of the requirements for the Master of Science degree in Computer Science.

Social Media Project which changes the search algorithm

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Introduction

Welcome to CloseCircle, a new social media app for iOS built using SwiftUI. CloseCircle is a platform for hobbyists to connect, share, and learn from each other, offering a new way for users to connect based on their shared interests and hobbies. This proposal will outline the features and functionality of the app, as well as the development process and activities that will be undertaken to bring CloseCircle to fruition. We hope that this proposal will give you a better understanding of what CloseCircle is and how it aims to improve upon the traditional social media experience.

Objectives

CloseCircle is a new social media app for iOS, built using SwiftUI. It is a platform for hobbyists to connect, share, and learn from each other. One of the main problems with current social media apps is that they all follow the same uncreative formula. Users are expected to follow individuals or brands, rather than specific hobbies or interests. This can lead to a lack of meaningful connections and a feeling of being bombarded by irrelevant content.

CloseCircle aims to address this issue by offering a new way for users to connect with each other. Instead of following individuals, users will be able to follow "hobby blocks" that correspond to their interests. This will allow them to see content and connect with others who share their hobbies, rather than being exposed to a random assortment of posts from people they may not have much in common with.

Activities

The main objective of CloseCircle is to create a social media app that connects users based on their shared hobbies and interests. To achieve this goal, the following activities will be performed:

1. Phase 1: Planning and research
 - Identify target audience and market
 - Research current social media apps and their features
 - Define the features and functionality of CloseCircle
 - Create a project plan and timeline
2. Phase 2: Design and development
 - Design the user interface and user experience of the app
 - Develop the back-end infrastructure and database
 - Implement the core features of the app, including hobby blocks, sharing and teaching, and connecting with others
 - Test and debug the app to ensure it is stable and user-friendly

3. Phase 3: Beta testing and release

- Conduct beta testing through TestFlight to gather feedback and make any necessary adjustments
- Release the app on the App Store and promote it to the target audience

Throughout the development process, we will also be conducting ongoing user research and testing to ensure that the app is meeting the needs and expectations of our users. By following this plan and performing these tasks, we aim to create a successful and enjoyable social media app for hobbyists

Research and Environment

Shades is being developed using SwiftUI on XCode and is intended for use on iOS devices. The app will be deployed through TestFlight for beta testing, before being released on the App Store. To ensure the development process runs smoothly and efficiently, we will be using a Trello board to manage stories, points, and tasks. This will allow us to track progress and prioritize features as needed.

In order to create the best possible app, we will also be conducting research on current social media apps and their features. This will help us identify what works well and what could be improved upon in our own app. We will also be looking into factors that can contribute to the success of a social media app, such as user engagement, retention, and growth. By using these tools and techniques, we aim to create a high-quality, user-friendly app that offers a unique and enjoyable experience for hobbyists looking to connect and share with others.

Reports and Products

To create a unique algorithm that allows users to follow particular hobbies of their friends without following the friends themselves, we will be using Swift's HStacks and ZStacks. HStacks and ZStacks are UI elements in SwiftUI that allow you to arrange other views horizontally or vertically, respectively. By using these stacks in combination, we can create a layout that allows users to follow specific hobbies, rather than individuals.

To achieve this, we will use HStacks to create a list of hobby blocks that users can follow. Each hobby block will contain information about the hobby, as well as a list of users who have indicated an interest in that hobby. Users will be able to browse the available hobby blocks and select the ones they want to follow. To ensure that users are only seeing content related to their selected hobby blocks, we will use ZStacks to layer the content from the hobby blocks on top of each other. This will allow users to see content from multiple hobby blocks at once, without having to follow individual users.

Overall, the use of HStacks and ZStacks will allow us to create a unique and intuitive algorithm for following hobbies on Shades. By offering this feature, we hope to provide users with a more personalized and relevant social media experience.

Features

Hobby blocks: Users can follow hobby blocks that correspond to their interests. These blocks will feature content and connections related to the hobby, allowing users to easily find and connect with others who share their interests.

Sharing and teaching: CloseCircle will also provide users with the ability to share their own content and expertise with others. They can post updates, photos, and videos related to their hobbies, as well as offer tips and guidance to others who are interested in learning more about their hobbies.

Connecting: In addition to following hobby blocks, users will also be able to connect with other users directly. They can send messages, make friends, and join groups to engage with others who share their interests.

Project Schedule

As seen in figure 1 below, this project is planned to take a total of 144 hours to complete. This includes time for planning, research, design, development, testing, and any other necessary activities. To ensure that the project stays on track and is completed within the allotted time frame, I carefully planned and scheduled each activity. This included determining the scope and objectives of the project, identifying the resources and tools needed, and breaking the project down into smaller tasks that could be completed in a reasonable amount of time. I also took into consideration any potential risks or challenges that might arise during the project and planned accordingly. For example, if there were any delays or issues with obtaining necessary resources, I adjusted the schedule to allow for extra time to resolve these issues. Overall, by carefully planning and scheduling the project, I was able to ensure that it was completed efficiently and effectively within the allotted time frame.

2023	February				March				April				May				Summary	
Tasks:	W 1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	w1	w2	w3	w4	Hours	Percent
Requirements	6	5	5	4													20	13.9%
Design			4	6	12	8											30	20.8%
Code & Unit Test	4	4	4	4	4	4	4	2									30	20.8%
Integrate & Test							6	6	6	6	6	6	6				42	29.1%
Write User's Manual												8					8	5.6%
Write Final Report													10				10	6.9%
Demonstrate														4			4	2.9%
Hours	10	9	13	14	16	12	10	8	6	6	6	14	16	4			144	100.0% ⁱ

Figure 1

Conclusion:

CloseCircle is a new social media app that offers a fresh approach to connecting with others online. By focusing on hobbies and interests rather than individuals, it aims to provide users with a more meaningful and relevant social media experience. Whether you're looking to share your own expertise, connect with others who share your interests, or simply find new friends who share your hobbies, CloseCircle is the app for you. By focusing on hobbies and interests rather than individuals, it aims to provide users with a more meaningful and relevant social media experience. With features like hobby blocks, sharing and teaching, and connecting with others, Shades offers a unique and enjoyable platform for hobbyists to connect and share with others who share their interests.

Throughout the development process, we will be using a combination of SwiftUI, XCode, and other tools and techniques to create a high-quality, user-friendly app. We will also be conducting ongoing user research and testing to ensure that the app meets the needs and expectations of our users. By following this plan and performing these tasks, we aim to create a successful and enjoyable social media app for hobbyists. We believe that Shades has the potential to revolutionize the way people connect and engage with each other online, and we are excited to bring this app to the market. Thank you for considering this project proposal, and we hope you will join us in bringing Shades to life.

References

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SwiftUI by Tutorials: <https://store.raywenderlich.com/products/swiftui-by-tutorials>

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SwiftUI: Building Your First App: <https://www.udemy.com/course/swiftui-building-your-first-app/>

TestFlight: <https://developer.apple.com/testflight/>

The Impact of Social Media on Society:
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XCode: <https://developer.apple.com/xcode/>

Appendix E: Approval Cover Page

CloseCircle Social Media Application IOS

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Date: 01 December, 2022

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Date: 01 December, 2022

Appendix F: Abstract

Social Media app which connects people based on shared hobbies

Appendix G: Keyword List

Social media

Hobbies

SwiftUI

iOS

H Stack and Z Stack

Connecting

Appendix H: Tables and Figures

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Appendix I: Additional Appendices
