Anthony Arca
Prof. Elliot
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CS Project

To Do List App Final Report

Introduction

The final project, titled “To-Do List” was built by following the textbook titled “Develop in Swift Data Collections.” This project involves a to-do list where users could add tasks they needed to complete. These tasks could include a due date as well as a description of what needed to be done and other useful context. The goal of the project was to learn more regarding the Swift language and XCode IDE. The project involved the use of two view controllers and a number of methods which worked together to produce the final result.

The most difficult part of the project was becoming more familiar with the debugger as well as the to-do scenes and their numerous values. There were some issues encountered, however they were all overcome in due time. Overall, the project went smoothly and I had no major complaints with it.

Project Descriptions And Requirements

The project’s goal was to create an interactive to-do list where users could both collect and see which goals they had to complete by a certain date. This was created using Unit 1 of the “Develop in Swift Data Collections” textbook. The book was followed thoroughly as it required multiple different variables and methods to be used.

The biggest requirement for the project was to edit the Organization field in the project’s “Identity and Type” to Anthony Arca. Another requirement was to follow the guide precisely. It also required that the project file and final progress report be encased in a zip file. Lastly, the project must be presented in front of the class and have a question and answer segment.

Designs

The project’s design is a simple white background with a list of all the errands already in the system. The above portion has an edit and add button. The edit button allows the user to select an item for deletion. The add button prompts the user to include a title, date, and notes

section for a new to-do item. Selecting an item from the list will let the user add certain elements to it.

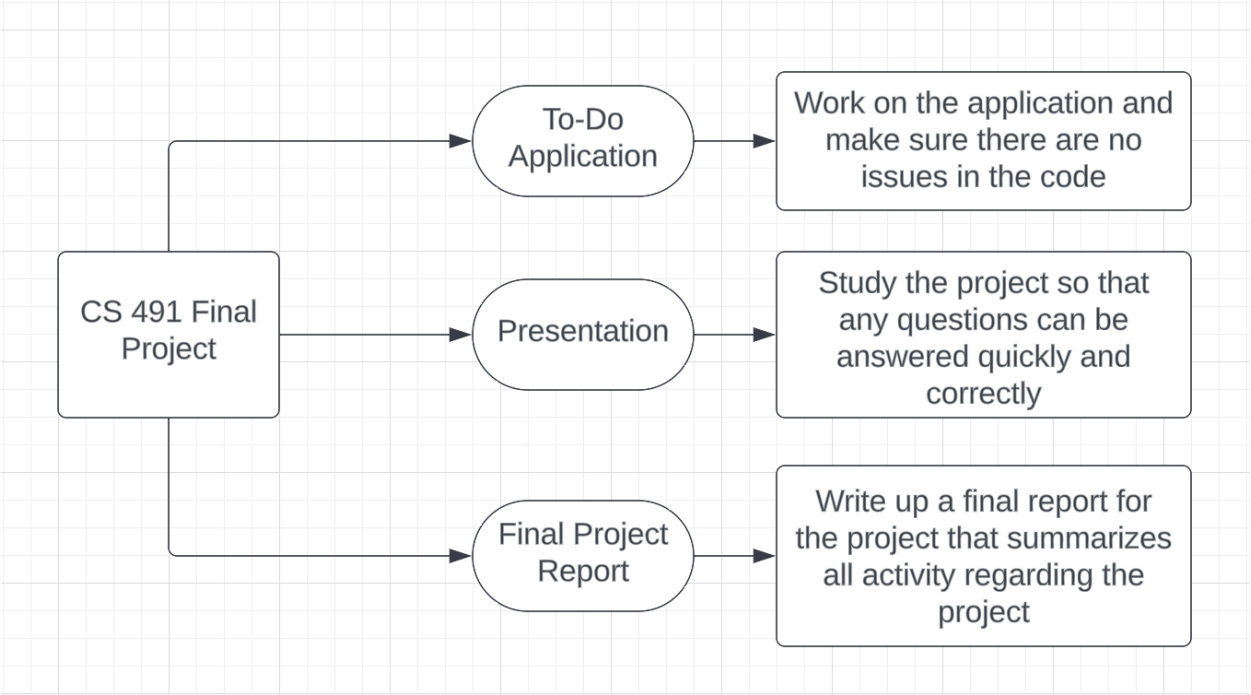
The app also has a second view controller that includes a box for the user to add the title and a date wheel for the user to choose the desired due date. Lastly, there is a notes section where the user can include a brief description about the task or provide some context.

Goals

The goal of the project was to create a fully functional application, however certain issues arose regarding the save and cancel buttons. These issues were frustrating, however they helped in deepening my understanding of XCode and the difficulties that may arise when using it.

A large portion of the time was also spent reviewing constraints, which proved very difficult to master. Another difficult topic that needed to be reviewed was segues, as the save button was not properly working. However, these were handled in time and did not cause the project to fail. This experience has helped me in learning the environment to work on more projects in the future.

UML Diagram



Tools

The main tools were the IDE used to create the project, which was XCode, and the textbook titled “Swift Fundamentals in Data Collections.” I followed the guide provided by the textbook created by Apple. Another very important tool was the MacBook I own, which was crucial in creating and hosting the project.

Another important aspect of the project was the final methods implemented which handled holding previously entered data in the system. This ensured that data would stay in the project so that it would never be deleted unless the user desired to do so.

Technical Specifications

The project heavily depends on methods that were created in the source code. Especially the methods involved to handle saving the data for future usage. Additionally, the project was contingent on multiple view controllers and attributes that helped ensure the app ran perfectly and looked the way it does. All of these are crucial as they allow the user to see and work on whatever it is they desire to do on the app.

The project was created using XCode 15. It was also created by a MacBook Pro using the M1 chip. Lastly, the latest version of Swift was used to ensure that the application was up to date with the most recent version of the softwares used.

Achievements

The biggest achievement was running into multiple issues and continuing until the project ran perfectly. Realizing the cancel and save button had been swapped was a very daunting experience, however fixing the issue was very rewarding. I learned to use the debugger as well, which is something I can apply to other projects I do in the future.

Plans for Next Steps

The next step will be to submit the project. This includes finishing the project report and creating a zip file with it and the project. After submission, I will have to present it in class to my peers. Outside the scope of a school project, I am hoping to continue work in the iOS app development field and hopefully create my own applications for implementation on my own device. Additionally, I hope to continue a career in the field as this has piqued my interest.

Issues

The biggest challenge faced during development was handling the save and cancel button being mixed up. This caused a great amount of confusion as the debugger wasn't able to completely help me. Another issue was the save button causing the project to crash. Both issues were handled quickly enough to allow a stress free submission. The guide was also unclear in some aspects, causing great confusion at times.

Discussions

The project took about 4 days to complete rather swiftly. I redid the project once from the beginning because there was an issue that could not be resolved. However, after consulting the videos on Kaltura Course Gallery and the project guide I was able to get it working. I am grateful that the project was rather quick and easy to complete.

Conclusion

I enjoyed my time working in the iOS development field during this semester. I found the projects helpful for initial exposure to the practice. This project went smoothly and all major issues were resolved in a timely manner. I hope to practice what I've learned during this project and the prior one one day in the career field.

Bibliography

Develop in Swift Data Collections XCode 13, by Apple Education.

Final Project on Canvas, Prof. Elliot.