203 Investigate Studio I

Zach Lovett

270284151

DSD-2402-Year2

Introduction

The Duolingo redesign project aimed to enhance the user interface and user experience of the Duolingo application. Our objective was to create a more user-friendly application that would help facilitate learning languages for users of all ages. This project involved a redesign of the lessons whilst keeping the remainder of the application the same. My role during this project was focusing on the front-end development of the project with HTML and CSS whilst James took most of the focus on the back-end – Although I focused on the front-end, I would also touch on the back-end when needed.

Team Meeting Minutes

During this project, we didn’t have amny team meetings due to conflicts with both of our schedules due to work and other commitments. However, in replacement of not being able to have many meetings, we consistently communicated via messaging which worked efficiently in solving any issues we had.

Involvement

I was responsible for the front-end development of the project and creating all the webpages whilst also touching on the backend development when needs be. I was responsible for the creation of all the pages and most of the front-end stuff excluding part of the lessons, leaderboards and quests.

The tools we used for collaboration during this project was mainly just GitHub as we had our timeline already pretty much planned out and there wasn’t much of a task allocation since we knew what areas we were focusing on for the project overall.

# Stages of Development

## *Planning*

In the planning phase, we already knew how we were planning on creating the application and assigned ourselves the appropriate roles. I was assigned with the focus on front-end development to create the visuals and front-end of the website whilst James would focus on the back-end and making everything function behind the scenes. During the design phase, we also compiled some user feedback to understand the users needs and painpoints and also did analysis of other language learning apps to gather insight and inspiration for our redesign.

### Design

During the design phase, we continued with the previous wireframes and prototypes that we had created in the prior assessment whilst making some changes to them due to creative restraints.

### Development

In the development phase, we decided to go with React at first for our project however, after experimenting with it for a while we were unable to get it functioning with our code and then made the decision to switch to Flask. Once we settled on Flask, it was a lot easier to understand and we were able to get this properly functioning with our project. On the front-end side of development, I focused on developing the overall look of the project along with almost all of the front-end pages. Unfortunately, I was unable to make them how I had hoped and I believe in the choice of this project, we were too ambitious on what we were able to do in the timeframe we had.

Collaborating withJames on the backend, we would actively test each new component and feature thoroughly to ensure that they worked correctly. We would often run into issues with these however, most of the time, the issues were program related issues with Visual Studio.

Issues and Roadblocks

During the project. We had encountered many issues when integrating the design with the backend. The main issue was that when implementing the backend code, it would cause CSS styling issues with the front end or it would mean that some aspects of the code work for one person but not the other. These were the main types of issues we had encountered which early on, we would encounter often however, as the project progressed, so did our coding and we in the end had less and less issues appearing throughout development.

Reflection

Throughout the project, although we were unable to have many meetings, we would have effective written communication via messaging with the main use of Discord. Our schedules with work and other commitments unfortunately, would never really line up for meetings so in place, we had to settle with written communciation. Throughout this project, I feel like I had improved my communication skills due to how often we had to communciate with the project due to its sheer size.

During this project, with our use of Flask, I learned to use it more efficiently and gained more experience in the backend side of development whilst also learning some new aspects for frontend development.

Changes to Initial Plan

The first change we made during this project was the switch from React to Flask framework – The reason for making this change was that we were unable to get React to function properly with our code but as soon as we made the switch to Flask, it worked seamlessly with our project. The other main changes that we made during this project were to the front end side of development compared to our wireframes and plans from the prior project. Unfortunately, we were too ambitious with this project and bit off more than we can chew. We intended on making multiple gamemodes for this project and had a few planned out however we were only able to get a couple in due to time constraints and had to leave some out. Our UI also had changed from what we had planned with some pages due to creative issues and the inexperience on making the front-end look on webpages. Overall for the changes, the switch from React to Flask was a massive benefit towards the project however, the changes for the creative side were unfortunate that we did not have the time or creative ability to do everything we had planned.

Conclusion

Overall, the project was a valuable learning experience. I’ve improved my frontend development skills a bit whilst also gaining a lot more experience in backend development. In the prior assessment, we were too ambitious on what we were able to do with our timeframe which unfortunately led to us planning too much to do in this project which resulted in us being unable to do a chunk of it and having to drop certain features we planned on implementing. Going forward for future projects, I aim to plan for the projects better to ensure we don’t plan anything that’s out of our reach and to at the same time, also work on enhancing the backend development skills.