CS 3110 Final Project - MS1 Report

Team Name: SVD

Members: Sydney Ho (sh967), Vanessa Fang (vf72), Dylan Tom (dt425)

Project Manager: Anirudh Sharma (as2844)

Meeting Time and Location: 09/22, Thursday 7 PM Duffield

Teamwork Contract

1. To what goals do we all commit?

   We will all commit to doing the best we can offer and not do the bare minimum. If there is extra time, we will put in more effort to go above and beyond.

2. What are our "ground rules"? Don't make an exhaustive list; stick with just a few.
   a. Respond to other group members efficiently.
   b. Complete all tasks before the deadline and do not wait until the last minute.
   c. Do not rush others to complete tasks if they are busy.
   d. Plan work sessions around exams so there are no conflicts.

3. How frequently will we communicate? How quickly are responses expected?

   We will communicate at least twice a week with a response time of no later than three hours after the message.

4. Where and how frequently will we meet? When is a person considered late to a meeting?

   We will meet at least once a week for a block of time in any location with chairs, table, outlets, and light. A person is considered late to a meeting when they show up thirty minutes past the agreed meetup time.

5. What team roles will we create? What are the responsibilities of each role? Will roles shift around, and if so, how often?

   We will have three roles: Lead Programmer, Time Manager, and Facilitator. The Lead Programmer will be writing most of the code from our weekly tasks. The Time Manager will make sure that all deadlines are being met and necessary tasks are being completed. The Facilitator will be the main point of communication between the team and the project manager, facilitating the meetings between the two parties. Roles will be shifted weekly and rotate between each member.

6. How will we hold ourselves and one another accountable? What exactly will we say to a team member who appears not to be contributing equally? Or to a team member who fails to deliver what was promised?

   We will hold ourselves and one another accountable by sending each other messages to understand what is going on and why the work is not being completed within the agreed timeframe. If this is a reoccurring issue and the person has failed to explain their situation, we will contact the PM or any other course staff.

7. How will we make decisions as a team? What exactly will we do when we disagree or discover conflict? What will you use as a respectful conversation starter?

   We will make decisions as a team by all coming to a consensus first before making the final decision. If there is a disagreement or conflict, we will find a way to compromise through further discussion. A respectful conversation starter that we can use is: Hey, I don't agree with this. Is there something we can work out with all of our ideas considered?

8. What are our procedures for re-visiting this contract?
   a. Call to meeting regarding issue
   b. Deliberation of what is going on and what can be done to resolve it
   c. Re-signing of team contract

9. How will we make this experience fun?

   To make this experience fun, we will get boba or matcha lattes whenever we meet and listen to good background music during work sessions.

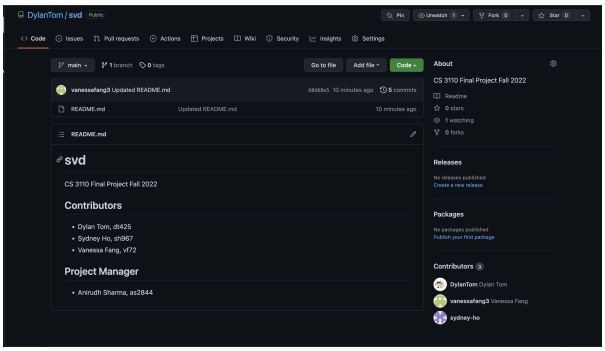
Pitches

- **Reservation System** - A scalable, reservation API system. The current system is cumbersome and requires manual verification and maintenance by the client. In addition, users can change the reservation at any moment without any automated restrictions. This project will focus on achieving the functional backend required to run this system including, but not limited to automated reservation verification and automated notification reminders. There will be a GUI implementation for users to interactively make reservations and view reminders. As a stretch, the GUI could be converted to a web app.
- **Bobaboy and Matchagirl** - This project is an adaptation of Fireboy and Watergirl, a co-op adventure puzzle game. We will implement a GUI to render the game and allow the user to interact with the system using keyboard inputs. The user would be able to progress through levels in the form of a tree of varying difficulties. As a reach goal, we will try to implement the auto-generation of levels.
- **SimpleML** - This project is a simple library for machine learning implemented in OCaml. There is not a lot of well developed alternatives to popular Python libraries like sklearn implemented in OCaml that are also simple and intuitive for users. This user will be able to run common functions present in other popular machine learning libraries while being able to build machine learning models using fast but correct

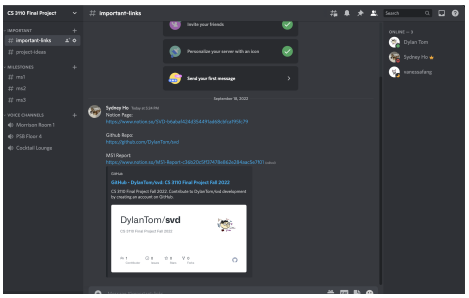
programming. As a reach goal, we will compare performance to machine learning libraries in other languages.

- **Expedia but for Buses** - This project is an adaptation of the Expedia website. The core functionality of this project would be automatic and functional filtering of different bus companies and their available routes. A GUI would be implemented so that users could search and filter for bus routes that fit their price range. As a reach goal, we would convert this to a web app in a different language yet retaining the backend processing in OCaml.

Screenshots



Github: Everyone has access to the repository and made a commit adding their names to README.md



Discord: Communication platform used for the final project. Contains channels separating milestones and important links

Signatures

The above report has been read and agreed upon on September 23, 2022 by:

Sydney Ho Vanessa Fang Dylan Tom