Rachel Luo
Professor Kosbie
15-112
4/26/21

Project Proposal

Project Description

The name of this term project is "Intentional Time" and is a Bible study application meant to help with making more intentional time for reading the bible and studying it. My idea is that you will have the main calendar, which is the bulk of this project, that will optimize the best time throughout the week for you to do your desired amount of bible study time. You put in your preferred ideal time for every day of the week that you want to do bible study, and the calendar optimizes to have around the same time each day to do bible study. Then you have the devotionals part, where you would be generated a section from the bible along with some questions to guide your devotional time. If there's a verse you particularly like, you may also highlight it, and save it to your highlighted verses. Then there is also a prayer page where you can put in your prayer requests, and check them off when they have been fulfilled. Currently the idea is that your schedule is something you put in yourself, and it remains constant throughout the weeks. Then, you just need to insert your desired devotionals time. In the devotionals section, hopefully users would be able to be presented with questions and bible verses, which they can scroll through.

Competitive Analysis

This idea is based off of a site I use called "Living Life" which is essentially a bible study website where you can do daily devotionals given to you by the website, and there are questions along with it. This project targets inconsistencies users may have when doing their devotionals everyday, because there are numerous websites or

applications that give users a bible plan and some verses, but don't help them schedule the best time they are actually willing to do it. This is why my project will have bible verses and questions, but also include a calendar to help automatically organize when one should really be doing their devotionals, taking into account their schedule and preferred time. I have actually never seen a sort of project like this, so it is going to be very different from something such as google calendar, or your regular bible study planning websites. This is because it takes into account a whole schedule and optimizes one specific thing, which is your time to do bible study.

Structural Plan

The project will have at least 5 different python files. Each file is for the different tabs of this project, One for devotionals, one for the main welcome page, one for the calendar, one for the highlighted verses, and one for the prayer requests. The tabs all connect to each other, except for the main welcome page, which is only there at the start of the app. There will also be 66 text files. One for each book of the bible, along with a python file that reads each of these files and converts each book into a list.

Algorithmic Plan

My complexity is going to be a recursive backtracking algorithm, which will take in the preferred devotional time.
Here is the idea through a simple example:
- After the calendar takes in a preferred time, it will then start on sunday by trying to place a time as close to your preferred devotional time.
- Once it has that, it goes on to monday and tries to see if the same exact time as Sunday is free.
- If it is free, it will continue on to Tuesday
- If it is not free, we will check if there is more availability within a 30 minute time span of your preferred time.
- If yes, we move onto the next day, Tuesday.

- If not, we increase our time span to 1 hour.

Essentially, if a time does not work,we increase the allowed time span in which we can place your devotional time by 30 minutes. Every day will have a time span of 0 minutes and if it doesn't work, it keeps increasing by 30 minutes. I would approach this by starting small with just no time constraints, and then moving on to adding in time constraints.

Timeline Plan

4/26:
- Have the very primitive version of complexity complete, in which it just optimizes time with no time constraints, or just a constant time constraint.

4/27-5/1:
- Work on making complexity more complex, and finish it.
- Find a way to allow users to highlight verses.
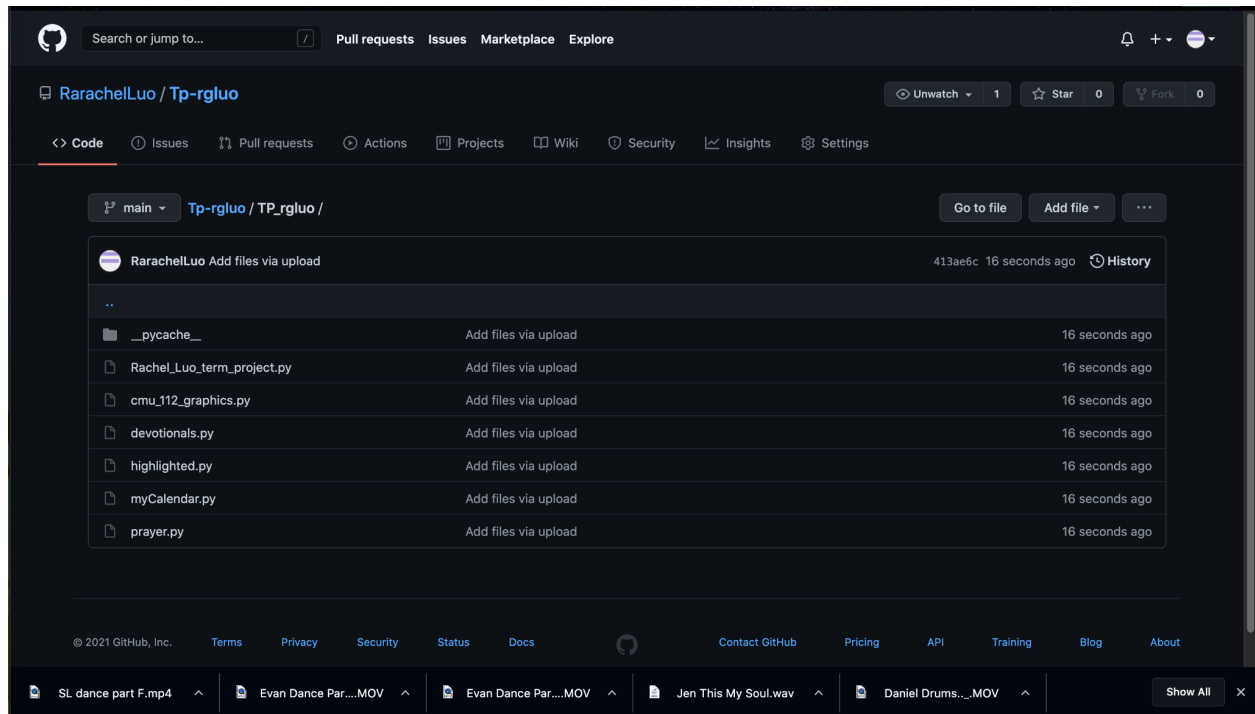- Complete the whole calendar look and functionality hopefully

5/1-5/3:
- Work more on interface aspect. Essentially trying to make everything look nicer.
- Complete all the bible verses, highlighting, and prayer requests functionality

5/3-5/5:
- Try to make project more complex, and finish up final touches

Version Control Plan

I will be using Github to save my code online. I also have an external time capsule, which I backup my whole laptop with weekly,

Module List

If I reach MVP, I will consider using a scriptures module that can be found here:

https://pypi.org/project/python-scriptures/