

Project Specification for Group #175

Team Name: Group #175 - Study Buddy Finder

Domain: Matchmaking and Learning Collaboration

Software Specification:

This program allows users (students) to be matched with and connect with other students for collaborative study sessions based on their courses, program, and availability. The program also helps schedule study sessions with the matched partners, as well as display upcoming study sessions for the logged in user.

User Stories:

Team user story (core functionality):

As a student, I want to be matched with a study buddy who is in the same course as me and is available during my study times, so that we can collaborate effectively and keep each other accountable.

Tanaya:

I want to be able to create an account and fill in my info/availability to be matched with others, including my name, bio, courses, program, and availability.

Cooper:

I want to be able to see the profiles of potential matches based on common courses and availability.

Jinbo:

I want to be able to schedule a new study session with my potential study buddy matches.

Alex:

If no matches are found, or if I don't want to study with any of my matches, then I want to be given options to expand my search to find other study buddies, such as others in my same program, or simply with others sharing the same availability.

Harris:

Once I have made an account, I want to be able to log into my account and see my upcoming study sessions (when, with who, for what course), if any are booked.

- I'd also like to be able to cancel a booked study session if I'm no longer able to attend, or propose a new time to meet.

Proposed Entities for the Domain:

1. User (Student)

- Instance variables: username, email, password, courses of interest, schedule, study session availability, program, amount of time studied each course, amount of time studied with another user

2. Study Session

- Instance variables: session ID, subject, time, date, participants, duration, study materials

3. Course

- Instance variables: name, course code

4. Buddy Match

- Instance variables: match ID, user1, user2, subjects of interest, availability

5. Schedule/Availability*

- Instance variables: available time slots (HashMap <time slot (e.g. Monday 10:00-11:00; see Time Slot below), boolean>)

6. Time Slot*

- For the functionality of the schedule/availability
- Instance variables: day of week, start and end time (HH:MM)

* These entities may slightly differ in their implementations and instance variables depending on the scheduling API used.

Proposed API for the project:

- **Meeting scheduler/availability API** (top options below - waiting for response to Piazza question before deciding)
 - <https://easyappointments.org/>
 - <https://slotify.ca/>
 - <https://github.com/lukevella/rally>
 - <https://www.cronofy.com/developer/availability-api>
 - All of these options provide the user options to designate their availability and to schedule meetings/events with other users.
- **Reminder and Notification API (Google Calendar):**
 - If we have time after implementing the scheduling API above, we will also include reminders and notifications regarding upcoming study sessions as a feature using Google Calendar.
 - <https://developers.google.com/calendar/api/concepts/reminders>
 - A notifications API will send reminders about upcoming study sessions to all members of the session group who set a reminder.
 - The API will also send reminders about completed study goals to the user with the goal, if they have set a reminder for that goal.
 - The API will be used to keep track of when students have agreed to meet to study and for how long
 - The API will be accessed to update the time and details of the appointment if necessary

Scheduled Meeting Times + Mode of Communication:

Meeting time outside of lab:

- In addition to meeting in the lab each week, we will also meet virtually via Zoom once per week on Thursdays at 6 PM.

Mode of Communication:

- Communication during outside-of-lab meetings will take place via Zoom link and via Instagram messaging