Project Title

Match and Meet @ UIUC

Project Summary

Our project is a web app that will allow students at the U of I to connect and make friends with other students depending on what criteria they're looking for, such as common interests, background, major, and shared classes. We hope to make meeting new people easier for students by providing them a list of people who could be compatible with them through a seamless experience in our app. This can save time for them because it bypasses the need to constantly browse for group chats, discord servers, reddit threads to connect with people from RSOs, certain interest groups, or from a certain major.

To achieve this, we will use a database that will store the basic information of students which includes the full name, major, and residence. Students will then be able to input their interests, RSOs, and major upon account creation, and this will be the basis used for gathering potential 'matches' for them. For testing purposes, the data will be automatically generated using a script, which will be explained later in the document. Students will have two options to find matches within our app: they can find other students based on a percentage of common interests, or they can also select certain preferences (like being a CS major or someone living in IKE) that they're looking for in other students and filter matches based on those constraints.

Description

As students become accustomed to college life, they often feel quite lonely. Our application helps students find friends quickly and easily; matching common interests and extracurricular activities. This provides students with a way to find new friends and build friend groups, or just meet new interesting people.

In our project, we hope to create a relational database that stores those interests, classes, majors, and extracurriculars, while also allowing the user to find potential matches between other users.

While other matching platforms seek to match partners based on a small set of traits, our app's goal is to make profiles more in-depth.

Usefulness

Tinder, for example, matches users based on their first impression of another user's profile. Since our app matches students with similar intellectual and personal characteristics, it allows users to match with users based on shared interests, rather than physical first impressions. Another benefit is that our app stores the user's current classes that they are taking, which benefits students by allowing them to find study partners who also have similar interests outside of school. It can also be used to help international students connect with other international students that speak the same language.

Another similar app already established is Discord. University students using discord can interact with others on a mutual discord server. An example would be how the UIUC CS discord has join links for major-specific, class-specific, and RSO-specific servers. What makes our app more useful is that our users' data is already stored in the database, so there is no need to find the link to the UIUC CS discord server using 3rd party resources such as Reddit. This eliminates the need to search for class or major specific discord servers to meet new people, which saves time. Our app allows this all to happen in one place by simply having the user input their preferences and then display students who share common interests, classes, or majors.

Realness

Our database will store information about students' basic information such as their first and last name, NetID, similar interests, major, etc. We will autogenerate this information using the aforementioned script.

For our database, we plan on storing information about the "Users" of our app. So, when a user signs up we will add their information to the database. We plan on having several relations each related to the person we are trying to match. Below we have a rough sketch of what our database looks like:

Students Table

| | NetID VARCHAR (10) | FirstName VARCHA R(255) | LastName VARCHAR(255) | Major VARCHAR(100) | Residence VARCHAR(100) |
|--------|--------------------------|-------------------------------|--------------------------|-----------------------|---------------------------|
| User 1 | | | | | |
| User 2 | | | | | |
| | | | | | |

Majors Table

| | MajorID VARCHAR(10) | NetID VARCHAR(10) | Current Classes VARCHAR(100) |
|--------|------------------------|----------------------|---------------------------------|
| User 1 | | | |
| User 2 | | | |
| | | | |

Interests Table

| | NetID VARCHAR(10) | Interests VARCHAR(100) |
|--------|----------------------|---------------------------|
| User 1 | | |
| User 2 | | |
| | | |

RSO Members Table

| | RSO_ID | NetID | Name |
|--------|-------------|-------------|--------------|
| | VARCHAR(10) | VARCHAR(10) | VARCHAR(255) |
| User 1 | | | |

| User 2 | | |
|--------|--|--|
| | | |

Our current plan is to write a script to auto-generate this type of data (we plan on having 5000 entries, so a database of about 5000 people, to ensure there are ample opportunities for a random person to match with someone else). After the data has been auto-generated, we would place each of the tuples in their respective relations (following the schema we have above).

Functionality

Our website will allow students to match with other students based on a percentage of common interests. They can also select certain criteria that they're looking for in other students and search based on those constraints. Once a match is created, users will be able to see the other user's profile, while also being able to see the social media and or phone number of their match. The user can then see a list of the people they have matched with so far under the 'My Friends' tab.

When entering the application and there is no current user set, our application will prompt the new user to create an account by filling in personal information that matches the schema of the database. Once that new user is created, it is now a part of the database and the matching-making algorithm is only run when the user specifies it.

Another functionality would be to delete a user from the database if they choose to delete their profile. This will delete all data relating to the user and the schemas they specified. If they choose to deactivate their account, this will change the "active" boolean value to false, causing other users on the platform to not match with the user.

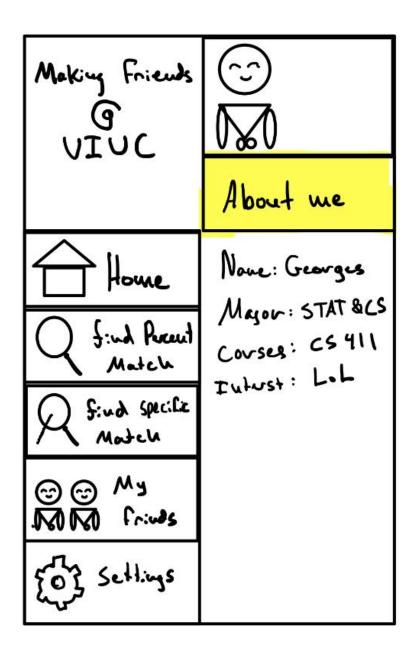
Work Distribution

For the work distribution, we plan on having each person work on different parts:

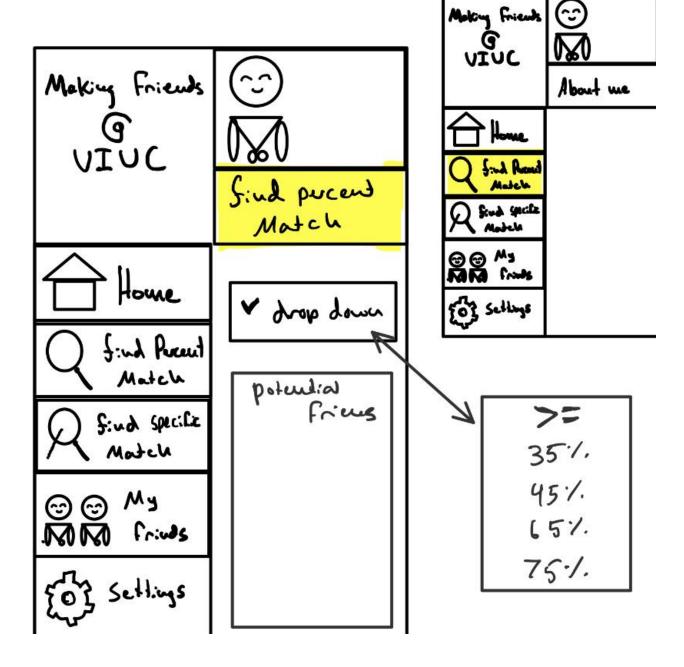
For the UI, we would like James Huang and Georges Durand. For the backend, Luke Zhang and Akshay Ghosh will work on the database management and data retrieval. For the algorithms, we all plan on pitching in to fine tune it so our application works as smoothly as possible. If any of us get stuck, we will ask other members of our team for help, and we expect to work collaboratively on almost every component of the project.

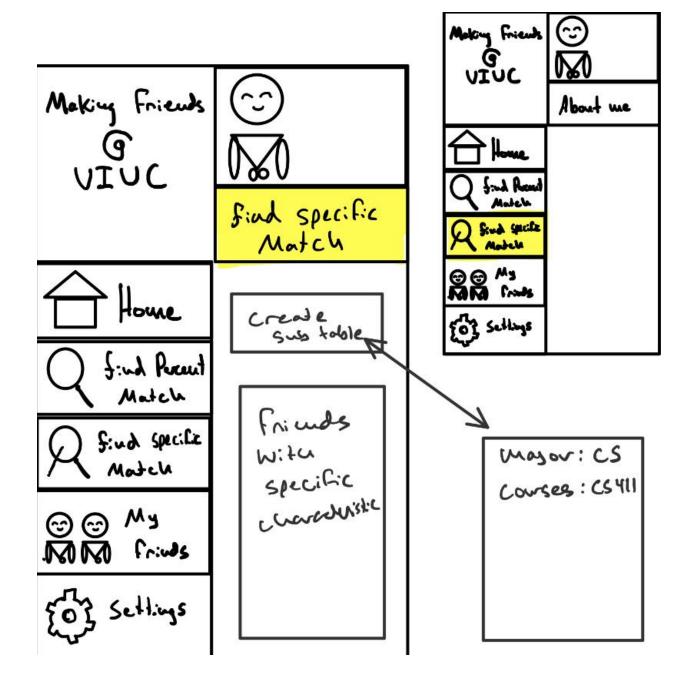
Low Fidelity UI Mockup

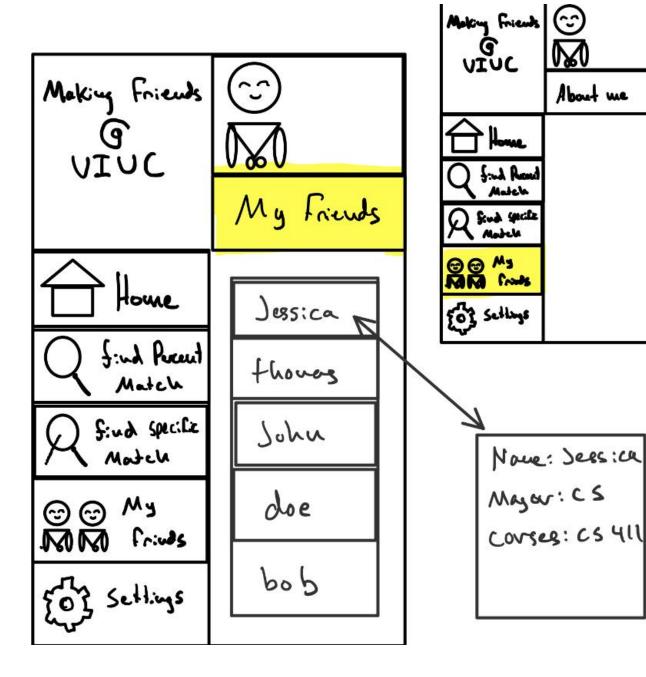
| Making Friends G VIUC | |
|-------------------------|-----------------------------------|
| | About me |
| Home | Nave: Georges |
| J:nd Percent Match | Mayor: STAT &CS Corses: CS 411 |
| find specific | Intust: Lot |
| .MM fv:w3s | |
| Settings | |

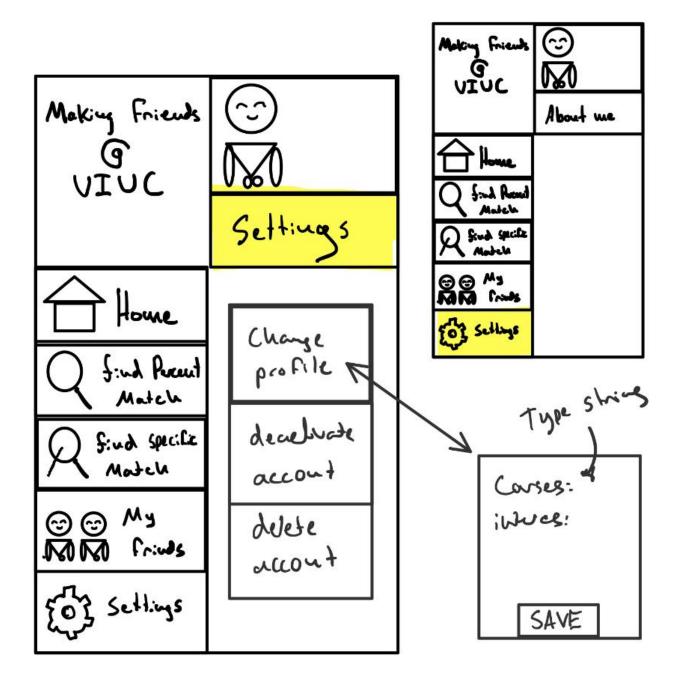


| Making Friends G VIUC | |
|-----------------------------|--|
| C South Road Market | |
| A Stud specific Madela | |
| ⊕ ⊕ ^{M3} | |
| (g) Schlinde | |









We will have a login/account creation page as well so that when a user signs up their data is added to the database. When a user clicks on the "My Friends" page, it will list the contact info and additional information about the people that they were matched with by our algorithm. There will also be options for the user to update their profile (add/delete interests, update classes, etc).

The "Find Friends" tab will generate a list of people that you match with. The "Home" tab will redirect the user to the home page, where they can view information about their profile.

Project Work Distribution

- Luke Zhang & Akshay Ghosh will work on the backend.
- Georges Durand & James Huang will work on the frontend.
- All of us will work on the recommendation algorithm.
- If needed, we can rotate work if the frontend or backend needs more attention from the team.