

# **Team Hotel**

## **Project Milestone 3**

Student Roommate Matching Service

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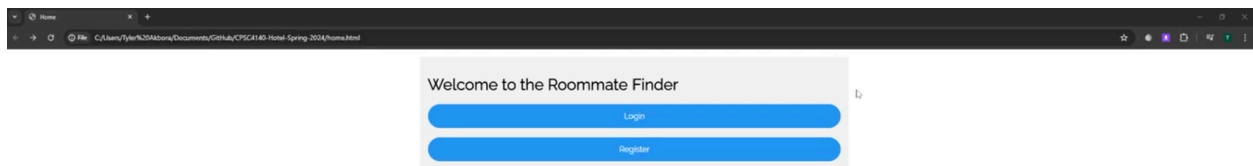
Isaac Hine

### **What we learned from Studio Session 3**

Based on the google form responses, a majority of people agreed that the current roommate matching system's visual design is clunky. Many viewed that the current design is a bit bland and could benefit with the usage of more color. The text size could also be bigger in comparison to the window size.

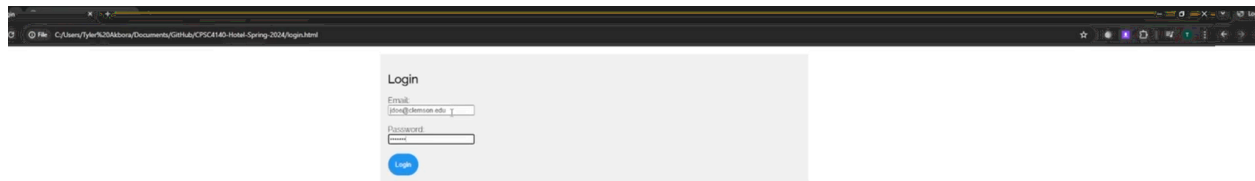
However, the placement of the text is stated to be well placed, utilizing good HCI principles. In regards to functionality, most people thought that the software was working as intended. The current features available such as the chatting box were well received. There were a few quality of life suggestions to help with swiping such as adding a confirmation to tell if a profile was accepted or denied. Confirmation would be useful especially for those who are unfamiliar with a Tinder style app. Going forward, adding more color to the current software along with some additional quality of life features will be the current course of action.

### **System Prototype Interaction**



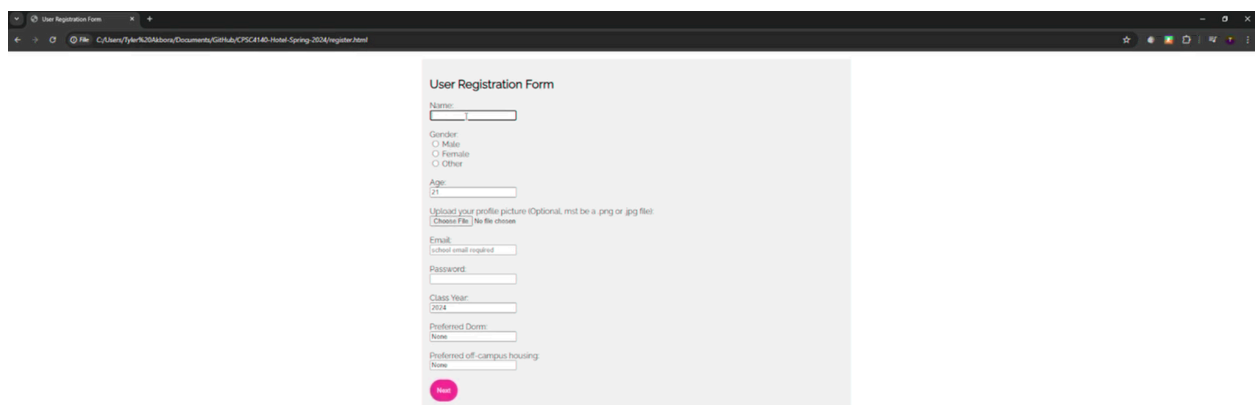
As the user first launches the Roommate Finder Software, they will be greeted with the home page.

There will be an option to login with the user's account or if they have yet to make an account they can click the "register" button to begin creating their account.



A screenshot of a web browser displaying a login page. The browser's address bar shows the file path: C:\Users\Tyler\Documents\GitHub\CPSC4140-Hotel-Spring-2024\login.html. The login form is centered on a light gray background and includes the following elements:

- Login** (Section Header)
- Email:** A text input field containing the text "john@demion.edu".
- Password:** A text input field with a masked password "\*\*\*\*\*".
- Login** (A blue circular button with white text).



A screenshot of a web browser displaying a user registration form. The browser's address bar shows the file path: C:\Users\Tyler\Documents\GitHub\CPSC4140-Hotel-Spring-2024\register.html. The form is titled "User Registration Form" and contains the following fields and options:

- Name:** A text input field.
- Gender:** Radio button options for "Male", "Female", and "Other".
- Age:** A text input field containing the value "21".
- Upload your profile picture (Optional, must be a .png or .jpg file):** A section with a "Choose File" button and a "No file chosen" label.
- Email:** A text input field with a placeholder "Enter email required".
- Password:** A text input field.
- Class Year:** A text input field containing the value "2024".
- Preferred Dorm:** A text input field containing the value "None".
- Preferred off-campus housing:** A text input field containing the value "None".
- Next** (A pink circular button with white text).

When registering, the user will input the necessary information required of them along with a profile picture for other existing users to see. After creating their name and password, next will come a page that will provide them with a series of questions. These questions are designed to give other users an idea of what kind of interests and hobbies they enjoy. There are also some questions that are dedicated to what type of lifestyle they live, such as how early they wake up or how organized they are. If there is no interest listed that fits what they do, the user can always input their own custom answer.

Preferences and Details Form

Tell people about yourself

Preferred Gender:

☐ Male

☐ Female

☐ Other

Preferred Class Year:

2014

What are your interests (Check all that apply):

☐ Gym

☐ Video Games

☐ Sports

☐ Hiking

☐ Biking

☐ Movies

☐ Partying

Other:

How often do you drink?

Sometimes

How often do you smoke?

Sometimes

How heavy of a sleeper are you?

Average Sleeper

How early or late do you wake up?

Average

What temperature do you prefer?

Average

How organized are you?

Normal

How do you feel about guests?

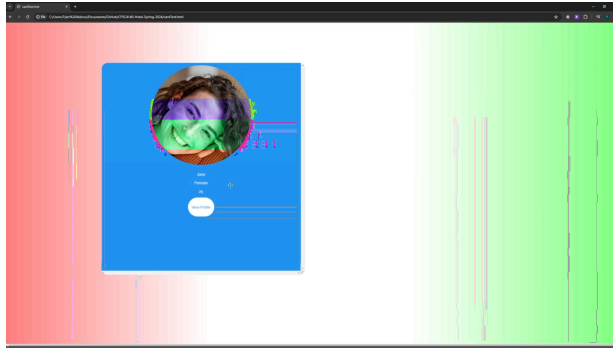
Don't mind

How do you prefer to communicate?

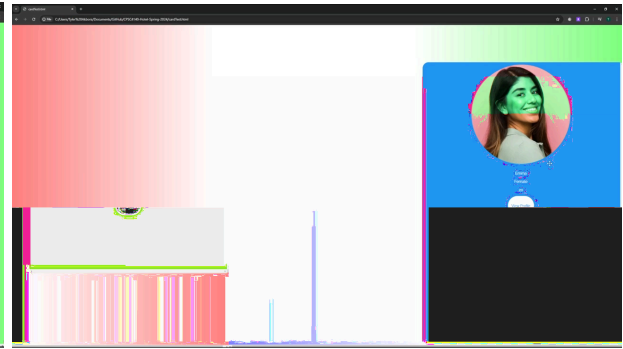
Either

Submit

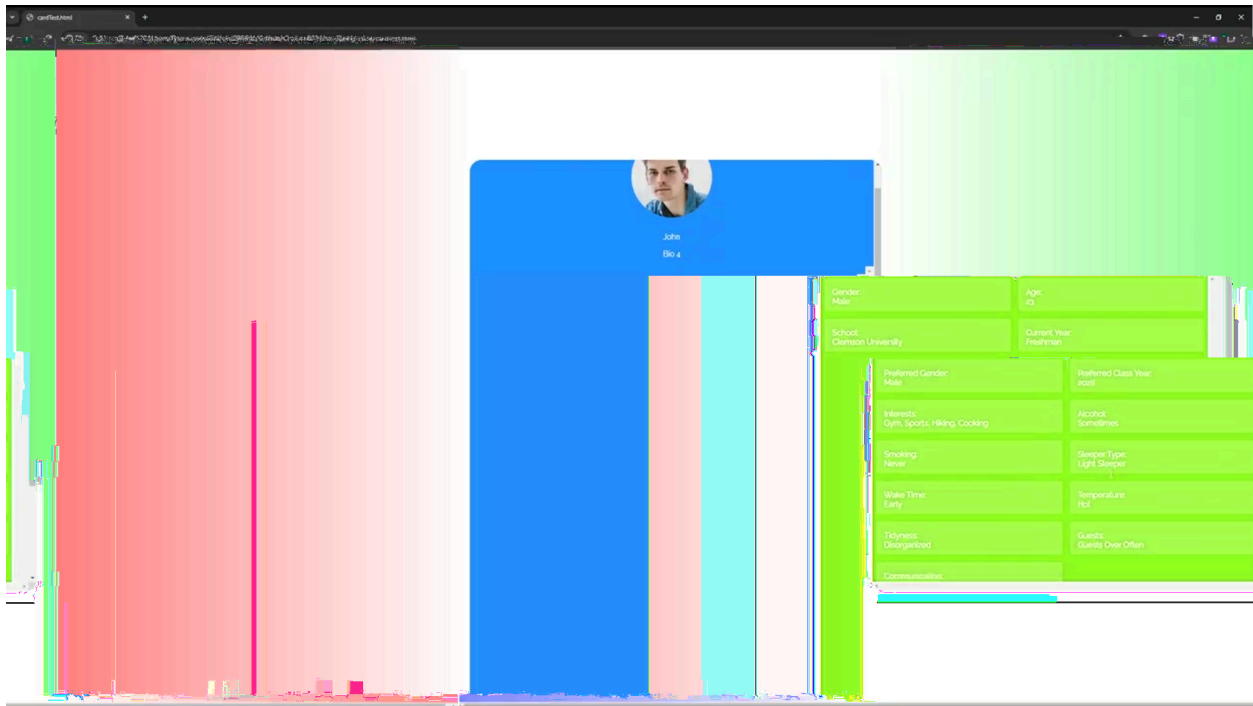
Once all preferences have been filled out, they will be able to start viewing other user's profiles. Should they be interested in interacting with another user, they can swipe to the right to initiate contact or they can swipe to the left to show their lack of interest. While the first impression of one's profile is the picture they chose, they can click on the button in the middle to view further information about them. The information shown will be their own preferences and interests they imputed into their profile.



Profile being swiped to the left



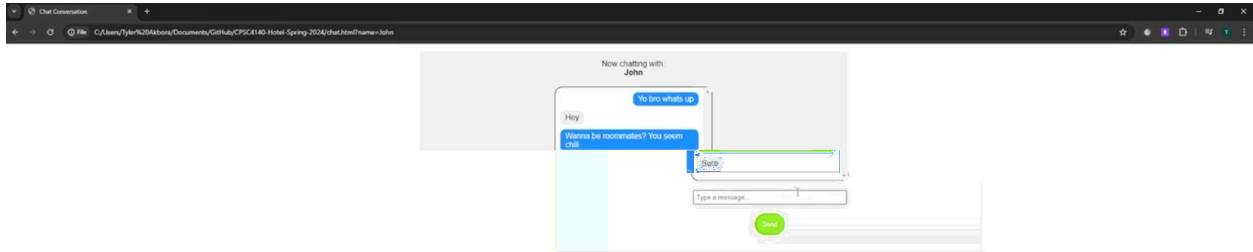
Profile being swiped to the right



Further information around one's profile

After going through a number of different profiles, the user can then use the option to start a chat with those they swiped right with. Chatting will help give each other an opportunity to communicate and figure out if they want to eventually room up together. Once they decide to room together, they can

figure out the details themselves on how they would like to proceed moving in.



## **Justifications**

Many of the design justifications were made due to the capabilities of our team, time constraints, requirements of the prototype, and, of course, the needed functionalities to best serve our users. We wanted the program to be easy to use and understand without a lot of directional text clouding the screen. Our design's goal was to create a smooth transition from account creation to roommate swiping. Based on previous feedback and research from milestones 1 and 2, social media has been a top contender in roommate matching options. The draw of social media is its fast pace and instant gratification, and we have tried to emulate that draw. That is why, past the decision to create a "Tinder"-like program for roommate matching, we kept the sign-up simple. What makes the design

particularly special is that the features it provides emulate those similar to dating apps, which makes it very much appealing to college students. Young students who have made use of dating apps in the past can find matching software for their roommates that is easy to use and relatable. Many of the people's feedback from Studio 2 stated how it would be nice to preview their roommate before deciding. Adding the ability to message potential roommates in a convenient manner gives people the opportunity to get to know each other before making housing arrangements. With the addition of having detailed profiles that highlight preferences, habits, and lifestyle choices, this information can help potential roommates assess compatibility before contacting. Overall, creating a "dating" like roommate design helps to enhance matchmaking accuracy while making the process of finding roommates efficient and enjoyable.

### **Implementation Challenges**

During the production process, much of the implementation worked fairly well with few challenges. One major challenge was figuring out how to show more information about a profile that the user would click on. The goal was to flip the profile card to show the back, which would reveal more details about them. Getting the card to flip was the challenging part, but it turned out successful in the end. Implementation challenges we face moving forward will be cleaning up a lot of the interface and making it more enjoyable/appealing to the eye as well as quality of life attributes. Quality of life attributes such as a swiping animation or animations for like versus dislike. We will be attempting to make the background more interesting and not as plain. Our prototype is very bare-bones and serves its

purpose as a wireframe/demo. We will be looking to make improvements like the aforementioned tasks which will require a little more time, attention, and technical skill.

### **Technology Justification**

As we were determining what technologies we were all familiar with to use for our prototype, we came down to using Python and HTML. Most of us were fairly accustomed to using Python and had some prior background knowledge of HTML. Due to the nature of Python being a cross-platform language, it was convenient to have the software run on various operating systems, which made it easier to deploy as a web application. It also made sense in terms of how we would be able to store and access the data in the future. Because we chose a platform where users create accounts, store preferences, and can message others, it made the most sense to build our platform in the form of a web application.

### **Usability Specifications**

User-Friendliness: The interface should be intuitive and easy to navigate, allowing users to create profiles, browse matches, and communicate effortlessly.

Profile Customization: Users should be able to create detailed profiles, including preferences, interests, and lifestyle choices, to allow for accurate matchmaking.

Matching Algorithm: The system should employ an efficient matching algorithm that considers user preferences and compatibility factors to suggest suitable roommates.



Communication Features: The system should offer basic means of communication such as chatting in order to allow a means of contact between users.

### **Quantitative Benchmark Tests:**

Time creating a profile: Record the average time that it takes for a user to finish completing their profile.

Number of swipes: Count how many times a user makes a decision and swipes either to the right or left. Are they able to get through a large amount of profiles? How many swipes before they log off?

Number of matches: Count how many matches the system provides to the user and how the matches meet their expectations.

Response time: Record the time it takes for users to receive responses from potential roommates.

Average time to swipe: How long does the user view the profile before making a decision of left or right? Does it take them a long time to view the whole profile?

**Qualitative Data:**

User Feedback Forms: Distribute feedback forms to users after they have interacted with the system, asking for their opinions on various aspects such as usability, matching accuracy, and communication effectiveness. For example some questions would be: “How easy was it to navigate through the interface?” “Did matches that were gathered fairly match your preferences?”

User Interviews: Interview users after using the prototype to ascertain their true feelings about the program and how their experience was. This would allow for a free-form conversation and gain feedback that we might not obtain via the feedback forms (questions and comments that we might not have thought of).