



Helping College Students Find Potential Roommates and/or Companions

User Research Assignment
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SMAD 317

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Executive Summary

The reason behind Bunkmates is to create a better and efficient way for college students to connect with new possible roommates and friends. There are not many apps or websites out that college students either know about or even use. The most common way that students go about finding roommates is through Facebook, Twitter, or Instagram. We asked numerous students, and usually, they say this is not the most effective route in choosing a roommate. This is because they end up finding out that they have nothing in common, no interest or similarities, and their living situation is not what they expected it to be. After conducting research and hearing the different experiences that students were enduring when living on campus, we decided to create Bunkmates. It is an app that will allow college students to efficiently find a roommate or roommates either on or off-campus that best match their personality, interests, traits, and more, to make sure they enjoy living together. We also wanted to add in a feature of finding friends, because making new friends can be just as hard as finding someone to live with. We wanted to make sure we conducted enough research before creating our app. We played around with some prototypes and ended up combining all of the different pages and sections during the low fidelity prototype. We ended up making it cohesive, with the colors, functions, functional movements, typeface, typeface size, etc. Once we finished and received feedback, we needed to make the app easier to navigate through and make it simple for users to complete each task. We wanted to make sure that our app would stand out from other apps or alternatives and give a better way and easy way for students to connect and communicate with their friends and future roommates.

Problem Statement



College students need to find a better way to connect with other students when looking for roommates or friends with similar qualities as theirs.

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Related Work

1. Roomster

<https://www.roomster.com/>

This app Roomster is a housing app that was developed in 2003. It is designed to help find housing or roommates for anyone. You enter your location you want to live in, and it shows you the current potential living situations. This app solved the housing and roommate situation for adults in the mid-20s it appears. They also have locations all over the world. When you search up the location it highlights the house/apartment not who you will be living with. I like the idea of having a map option to see where you would be living relative to the location. We could add this feature to our app so you could see where your dorm or off-campus apartment is next to the university. I also like how it lists the price, minimum stay, and listing type. These are all important features that I didn't think about that could be incorporated into our app. One issue this app doesn't add is a personality feature for your roommates; it only shows where you will be living. Both are important when finding a place to live and whom to live with.

2. Facebook/Social Media

<https://www.facebook.com/groups/1415833958725504>

When I was a freshman I used Facebook to try to find roommates. There are multiple groups on Facebook that have titles such as "housing, sublets, and roommates." The groups cover many areas of living. In roommate posts, they have you add photos of yourself and then a small description of what you are looking for. This has the photo aspect I like a lot, adding personality pics and you in everyday life. You can scroll through these posts like social media and add comments to message them privately. An option of social media sites like these is a share option. This is where you can send profiles to other people. If you see someone that a friend might want to be roommates with you can easily share their post with them. This feature would be a little harder to add to our app because not as many people will have it as Facebook has. Does that mean a search feature would benefit our app? Lots of things to consider looking at all of the related works.

3. College surveys

<https://offcampushousing.jmu.edu/help/article/find-a-roommate>

A huge way that a lot of college-run freshmen year is on their own through roommate services. When I was a freshman, I took the JMU survey and wound up with a roommate that was just alright. We had the same living styles, but different personalities. The survey I took mostly focused on how you live, questions like; how messy you are, when do you do homework, etc. This is successful for living standards, but are you going to get along? The quiz is very basic and there are no photos added to your profile. I can see this as a potentially good thing. You aren't judging someone on how they look, more focusing on what kind of roommate they will be. This service was also only open to freshmen when I took it. It seems that they have it open to anyone on-campus currently. Surveys like these are only tailored to that certain university as well, so you may get university-specific questions in your survey. I like how there could be university-specific questions because it feels more personalized. That is something I could add to our app design under certain colleges.

4. Roomsurf

<https://www.roomsurf.com/>

Roomsurf is probably the most like our app. It is designed specifically for college students to find roommates. I did a test profile to see what kind of questions the survey asked. I am very impressed with how similar I thought the design was to ours. It started with asking for the quantitative data, like which school are you at? And do you want to live on or off-campus? Then proceed to a section where you can add your social media if you want. I like this feature because a lot of the time you want to look up your potential roommates and having the links already there is very useful.

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User Research

Defining Our Users

Our users are primarily college students who are trying to find a roommate on or off-campus. Many freshman users have trouble finding roommates quickly and who matches their personality, but these users are not the only ones affected. Off-campus students also find it grueling to fill a lease when a roommate backs out or having no platforms to search on. One group of users our app indirectly impacts are college student's parents. The majority of college students receive some form of financial help from their parents or guardian. Finding roommates lowers these expenses, making life easier for parents financially.

The Interview Questions:

Building Rapport:

1. How are you doing today?
2. Have you ever been interviewed like this before?
3. Is there anything you would like to know about us or this interview?

Getting to Know the User:

4. Do you like the dorm lifestyle of off-campus living better?
5. Do you use the internet a lot? Apps such as social media? If so what apps?
6. What were your freshmen experiences like? How can it improve?
7. Do you like the layouts of the dating app? Such as Tinder or Bumble? If so what about them?
8. Do/Did your roommates have the same living style? Current and Freshman year?
9. Has quarantine affected your relationships with your roommates at all?

Digging For Stories/Emotions:

10. What interests or qualities do you look for when searching for a roommate?
11. Where did you find your roommates? Was this process stressful? Why?
12. Would you say your roommates have similar interests or personalities to you? Current and Freshman year?
13. Walk me through your experience of finding your freshman year or off-campus roommate.
14. Do/Did you spend a lot of time with your roommates? Was it different for different years?

Product Opportunity/Reaction:

15. What do you think about our idea for the app?
16. How well do you think this will solve roommate issues? What issues did you come across?
17. What are some features you would like to see on the app when finding a roommate? Explain the features we were thinking about?
18. Would you have used this product if it was available to you?
19. What's most appealing to you about this app design?
20. Is there anything that we could add to help improve this app? If so, what is it? What apps are similar?
21. How do you think we could make this app known to students across the US?
22. What issues do you see happening with an app like this?

How interviews are conducted

When we conducted interviews, the methods we used for recording data were limited thanks to COVID—we had text exchanges with some interviewers, face-to-face with recording with close friends, and over Facetime interviews. The method used for each interview changed based on where the interviewee was and if the safety of the meeting would put them at risk. Being that some of the interviewees go to other universities, Facetime was the only means for communication. The only way we got individuals to interview in-person was if they were comfortable, or we interact with them daily; like a boyfriend or roommate. Once all interviews were completed, we decided to convert our handwritten or typed-up notes into a chart on Miro, that way we could compare our data more easily. Below is a list of our interviewees.

Payton Lloyd: Payton is a 20-year-old Junior at the University of Rhode Island. She is majoring in Public Relations with a focus on Event Management. Even though I have known Payton for seven years, in regards to her experiences freshman year, I know little to nothing. Another factor is she goes to a different college than our team. This data can help us expand our app to multiple colleges across the United States. After asking her the questions, I wrote down her responses in an interview notebook.

Sam Marron: Sam is a 20-year-old Junior at Penn State University. She is majoring in Public Relations with a minor in digital media trends and analytics. Sam and I have been good friends for years, and the struggles I have heard about her freshman roommate are vital to our overall app goal. Hearing her bad experiences ultimately gave us data on what to avoid and what to add to the app. After asking her the interview questions, I wrote down her responses in an interview notebook.

Jamie Drogg: Jamie is a 20-year-old Junior at James Madison University. She is majoring in Media Arts and Design with a concentration in Creative Advertising and minoring in Communications. Considering that we are roommates, I know the majority about her current roommate experiences; however, I did not know the experiences through her eyes. By interviewing her, I can in depth gain her perspective on her current and freshman roommate situations and add to the overall data. After asking her the interview questions, I wrote down her responses in an interview notebook.

Charlie Stimpson: Charlie is a 22-year-old senior at James Madison University. He is a Geographic Science major and a computer science minor. His experience of roommates has changed over all four years; however, they have all been good experiences in different ways. Hearing how different each situation gave me a good understanding of his definition of a good roommate. I wrote down all answers and suggestions on an online notepad to be further analyzed.

Kenya Dillard: Kenya is a 20-year-old senior at James Madison University. She is a Biology major with a concentration in Pre-Med. I have known her since I attended James Madison University, and she has always told me about her roommate issues. I knew she would be a good person to interview for this because she could share her story and benefit from an app like this. I was able to record and write down her answers to the questions.

Kaylah Sams: Kaylah is a 19-year-old sophomore at James Madison University. She is a biology major with a concentration in Pre-Veterinary. I have known her since we were in middle school, and she also been one of the many students that have dealt with a bad first-year roommate. I wanted to make sure I got her as a person to interview because she lives on-campus. I recorded her responses to the questions on paper.

Personas

Gabrielle Haynes

Age: 20
Work/school: college student
Location: Harrisonburg, Virginia
Character: The Outgoing One
Current Living Situation: on-campus living

Bio

Gabrielle is a junior at James Madison University majoring in biology, from Northern Virginia. Gabrielle enjoys school, having a good time with her friends and going out. She has decided to move off campus this year and is in need a roommate. She has been living on campus for the past two years with two different roommates, and wants to find roommates who have similar personalities and qualities. She feels her process of searching for a roommate was rushed and made a decision to live with her roommates because they had the same majors.

Social Media Usage

Instagram/Twitter	High
Snapchat	Medium
Facebook	Medium
Dating Apps & others	Low

Goals

- To room with people who have similar traits as her
- A easy roommate search process that is not rushed
- Something simple that she can navigate through.

Frustrations

- People lying about themselves
- Lack of communication

Needs

- Roommates who are social, considerate, responsible, outgoing, and wants to hangout together
- Easier and effective way of finding a roommate besides using Facebook and the housing portal.
- Easier way of communicating with roommate and future prospects

Personality Traits

Introvert	Extrovert
Clean	Messy
Truthful	dishonest
Early bird	Night owl

JMU

"Can fix issues of better matches; issues you could come across is people not reaching out out of fear"

Connor Chase

Age: 19
Work/school: college student
Location: Pennsylvania
Character: The Laidback Homebody
Current Living Situation: Freshman

Bio

Connor is a freshman at Penn State University. He is a psychology major from New York. Connor is quiet and reserved and is looking for roommates like him next year to live on-campus. He used Facebook the previous year for looking for a roommate, and it was not effective for him. He found out that him and his roommate do not have similar interest are total opposites. He felt almost catfished because he did not think his roommate was who he believed he was.

Social Media Usage

Instagram/Twitter	High
Snapchat	Medium
Facebook	Low
Dating Apps & others	Low

Goals

- To room with people who have similar traits as him
- A easy roommate search process that is different from facebook and similar to other apps he uses already.
- Something simple that he can navigate through.
- New and updated and allows for effective roommate matching.

Frustrations

- Difficult apps that are hard to use
- Bad communication skills
- Liers

Needs

- Roommates who are social, considerate, responsible, and wants to hangout together
- Easier and effective way of finding a roommate besides using Facebook.
- Easier way of communicating with roommate and future prospects
- Looking for roommates who are laid back.

Personality Traits

Introvert	Extrovert
Clean	Messy
Truthful	dishonest
Early bird	Night owl

shutterstock.com - 50848640

"Love the idea, more modern idea than just posting on Facebook, it is technology that people already know how to use"

Scenarios

User Goals:

1. Sign-up/Login and complete the survey
2. Creating a Profile
3. Matching with a roommate/friend
4. Switch from Roommates to Friends Page and vice versa
5. Super Like Task
6. Messaging a roommate/friend

Scenario 1:

This storyboard demonstrates a freshman downloading our app after getting accepted into UVA. The first panel is her getting accepted into UVA. In the second panel it shows her worry for not having a roommate. Next, she decides to download our app (still undecided name for app.) Then it shows her swiping through the profiles of the other users on the app. After that it shows in the panel that she got a match! She is texting the other user through the text function of our app. In the last panel she is happy she found a roommate!

Scenario 2:

This storyboard demonstrates a sophomore who wants to meet new people through our app. The first panel shows a lonely sophomore alone in his room, wondering how to make more friends. The next panel shows him downloading our app. In the third panel he switches the mood to "friends" instead of "roommates." The next panel shows all the users he can swipe. The fifth panel shows him holding the phone expressing his feelings toward the app. The last panel shows he found friends with similar interests such as basketball.

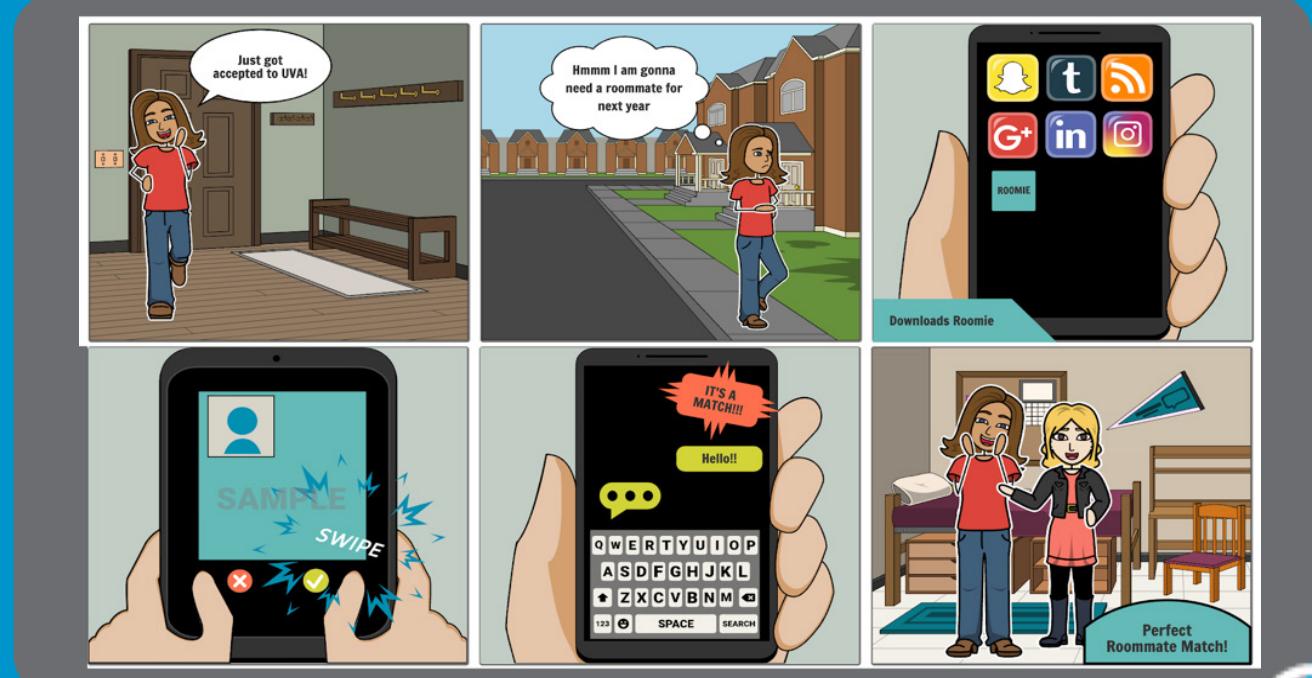
Storyboards

Design Requirements

Scenerio 1 Storyboard



Scenerio 2 Storyboard



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This product should allow users to add background information on themselves for their profile.



This product allows users to input their verification of school acceptance in order to be granted access to that college or universities page.



This product requires users to answer survey questions that way results can be calculated to match potential roommates.



Survey questions include:

General Information

Major, age, year at college or university, gender, pets? etc.

Personal Information

What type of roommate you are looking for

Messy vs clean, early bird vs night owl, introvert vs extrovert, outgoing vs shy, amount of time spent alone vs socializing, etc.



This product should backup and store user's information as well as match information to other similar users for easy use of interface.

Functional Requirements



This product will allow users to like or dislike profiles by swiping right and left on them.

Similar to the swipe function on the app Tinder.



This product will allow users to scroll through the profiles by swiping down on the profiles to show more information.



This product will allow users to switch the app mode from "roommates" to "friends" at the top of the screen to ensure separation of searches per user.



This product will allow users to super like profiles by swiping up, giving the user the ability to direct message other users without their like on your profile first.

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Contextual Requirements

-  This product will allow users accessibility to all users; no user that is accepted to a university or college that is going to that school will be denied.
-  This product will allow users to view our licensing's on a separate page.
-  This product will allow users to view our legal and regulatory on a separate page.

Technical Requirements

-  This product will have an algorithm to find potential matches (percent based), and will use data from the survey to give users potential matches.
-  This product will allow a chat function after a user matches with another, allowing users to directly interact with other users within the app.
-  This product will allow the user to get results and have feedback with a proper response time.
-  This product will allow for users to have privacy document signed at the beginning of downloading our app, that way personal information cannot be given out unless verified by the user.

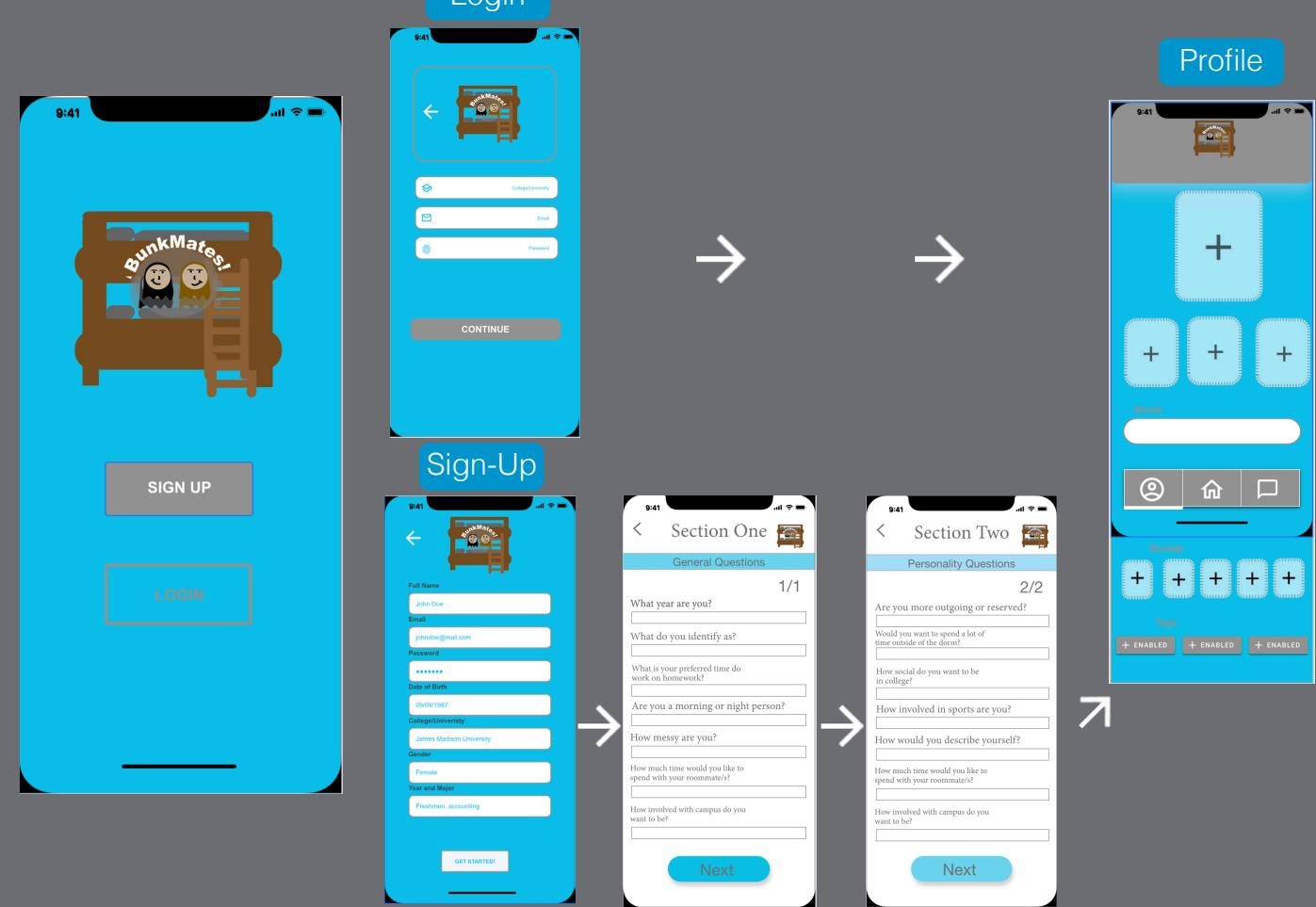
User Requirements

-  This product will allow users to have a verification process with photos, ensuring the safety of other users and avoiding the act of catfishing users.
-  This product will allow users to link their social medias to our app. This will be viewable by other users.
-  This product will allow users to style their profile and create bios, allowing users to have complete creative control over information put out on themselves.

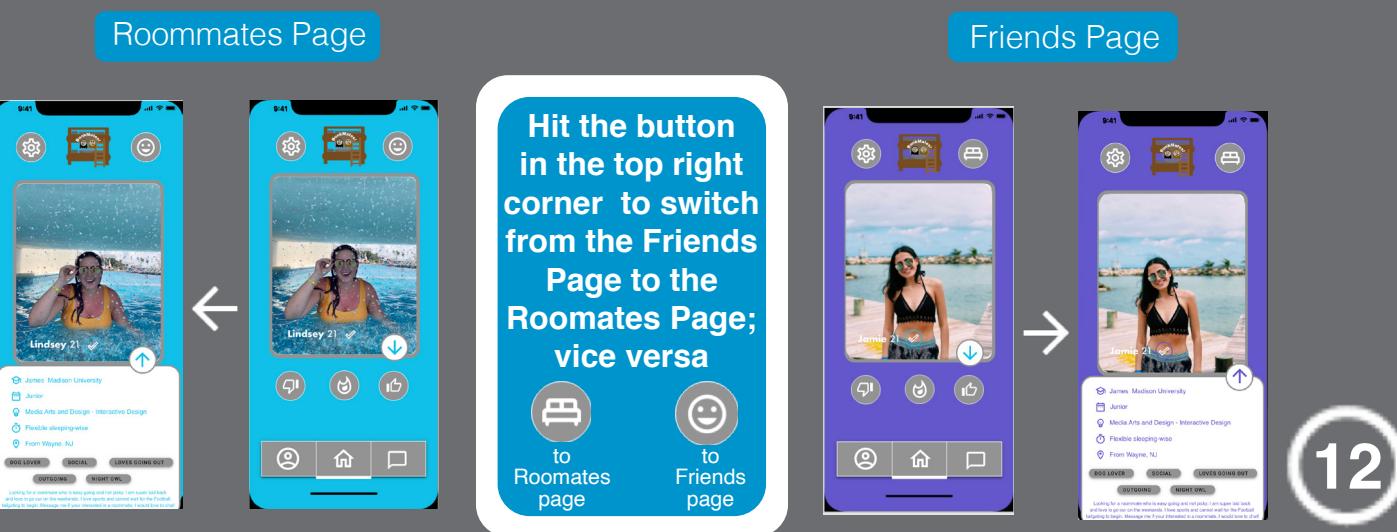
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Low-Fidelity Prototype

Task 1: Sign-Up/Login



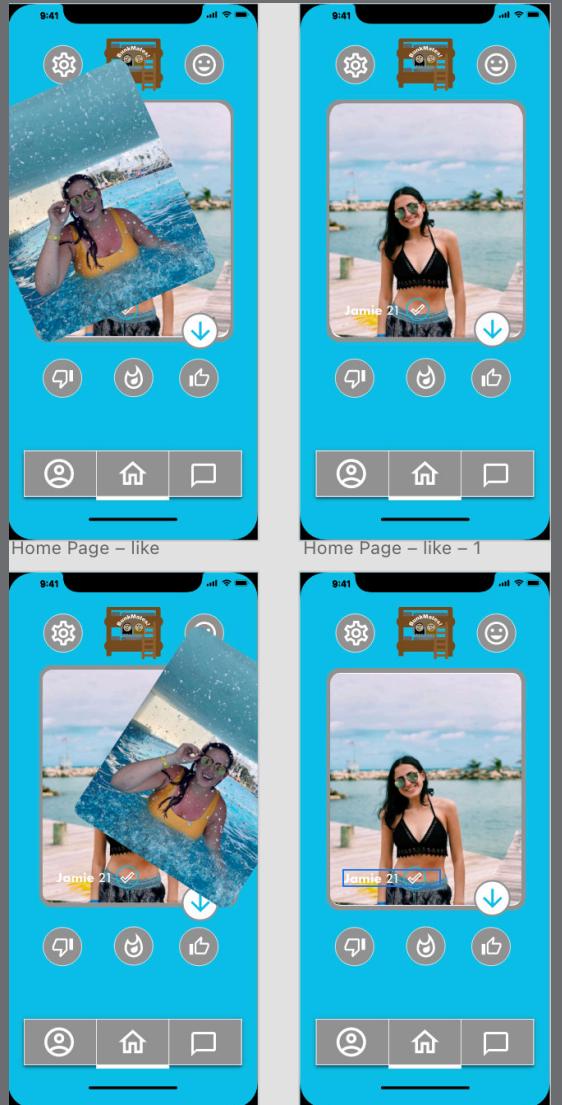
Task 2: Switch from Roommate Page to Friends Page



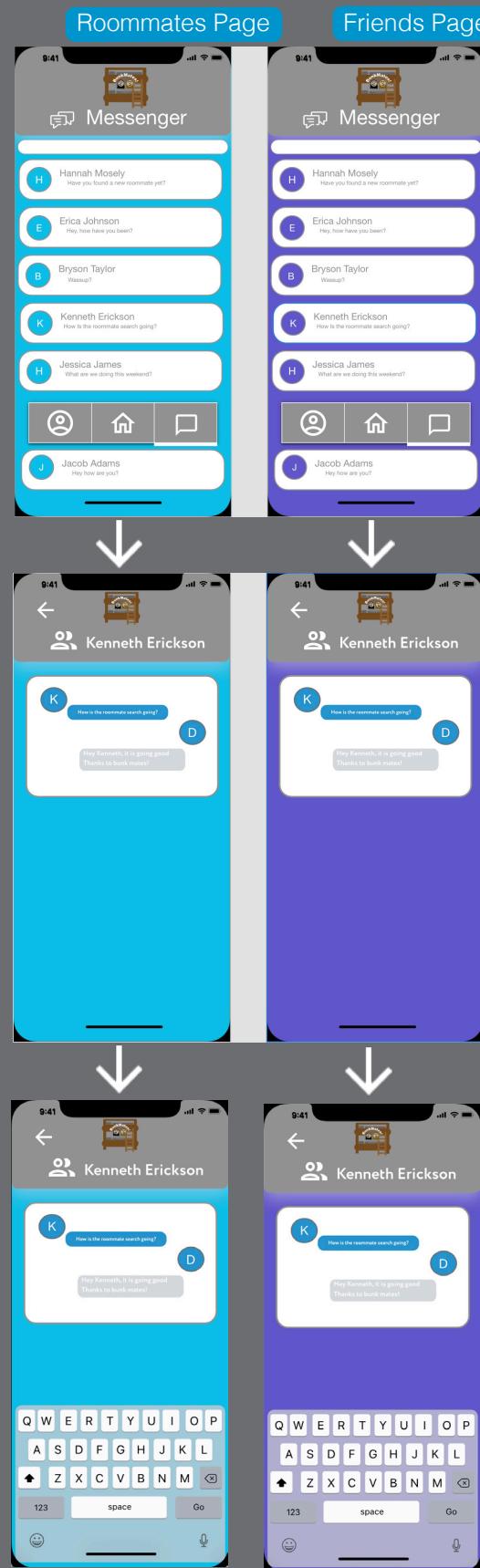
12

Low-Fidelity Prototype

Task 3: Swipe Feature



Task 4: Responsive Messenger Page



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Low-Fidelity Evaluation

Evaluation

As a group, we decided to work with Adobe XD to create our interactive app design. We had a hard time learning how to share the projects between the different group members, however, we eventually tackled that problem. We struggled to do a few design interactions; including the scroll feature properly working and the keyboard popping up. The keyboard kept covered the rest of the questions that needed to be answered on the login/sign-up page. As a user, you would be unable to see what you are typing in the answer boxes behind the keyboard. Another issue we ran into while creating our low-fidelity prototype was trying to make sure we implemented all of our six key tasks. We had to make some minor changes from using the swiping feature to a like feature. Another issue we had was trying to have the keyboard pop up in the messages feature. That means, as a user trying to navigate through this app and they wanted to message a potential buddy, they would be struggling with trying to get the keyboard to pop up.

Another difficult moment was the prototyping section of the project. We had to make sure that we were connecting the right pages, and along the way, we noticed that we were missing key features such as implementing a back button. We often forgot to add certain wires to one another or connected one of the wires to the wrong page. We often went back and forth looking at the final product to fix anything that did not flow together.

High-Fidelity Add-ins

A feature we would like to learn how to add to our high-fidelity prototype project is a swiping transition. Right now, we have it just with a normal slide transition however eventually we would like to have it change with a drag of the mouse or finger left or right. Other features we wanted to add in our high-fidelity is a revamped profile page, drop-down options for the survey, and a clearer switch button for both the friends and roommates page. Overall, we are happy with our first experiences with Adobe XD, we are excited to learn more features and add more to our project.

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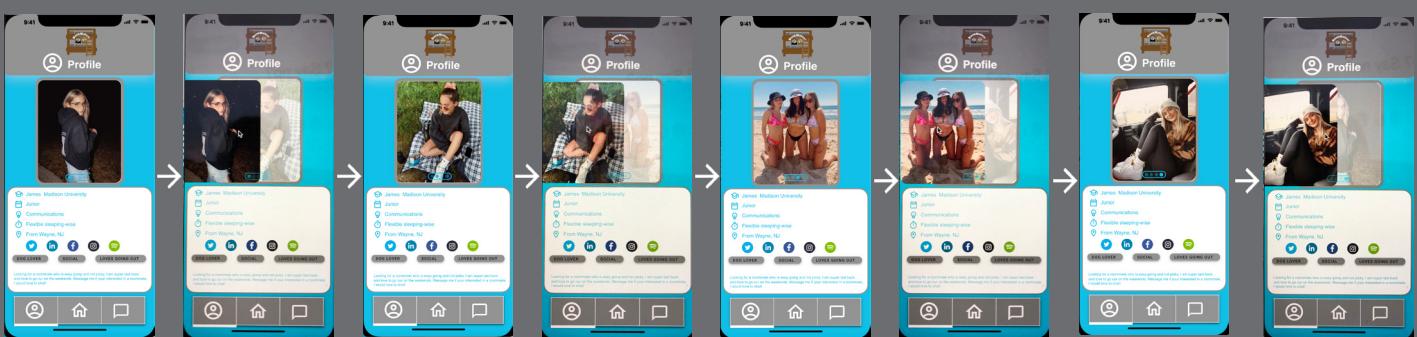
High-Fidelity Prototype

High-Fidelity Prototype

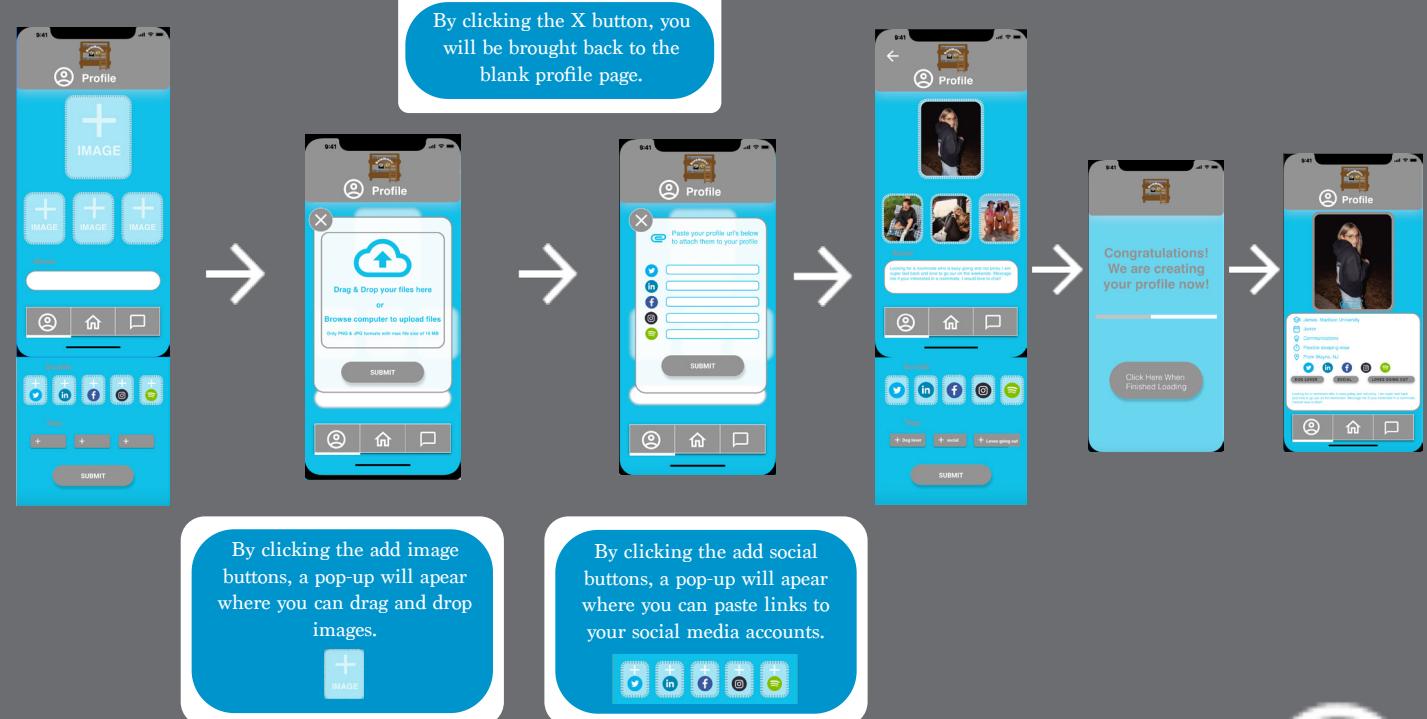
Task 1: Sign-Up/Login and complete survey



Fully Functioning Profile



Task 2: Creating a Profile



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Task 3: Matching with a Roommate/Friend

Roommate Dislike Swipe



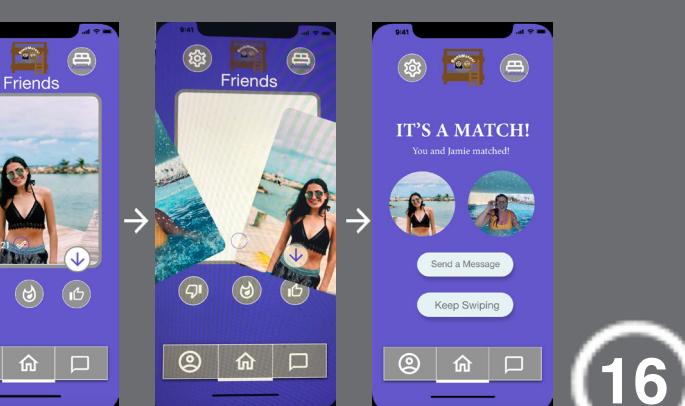
Roommate Like Swipe



Friend Dislike Swipe



Friend Like Swipe

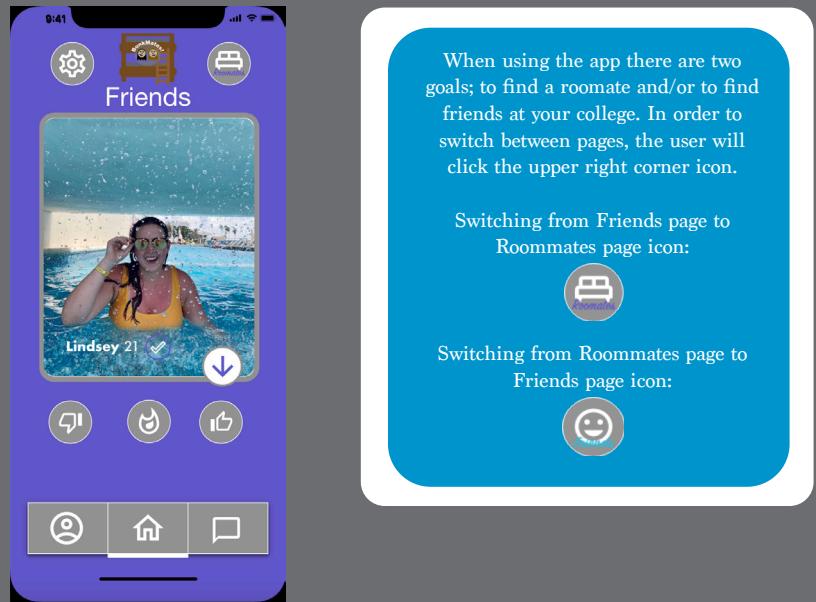


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High-Fidelity Prototype

High-Fidelity Prototype

Task 4: Switch from Roommates to Friends Page and vice versa



When using the app there are two goals; to find a roommate and/or to find friends at your college. In order to switch between pages, the user will click the upper right corner icon.

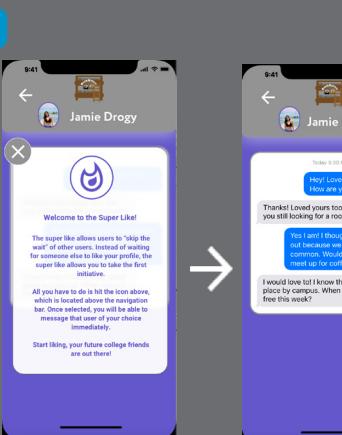
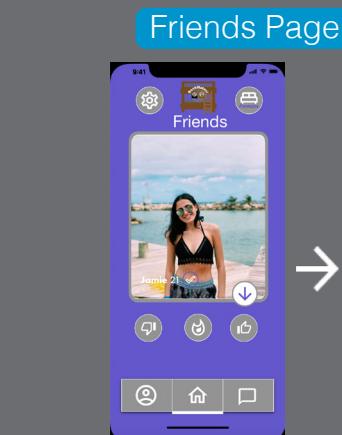
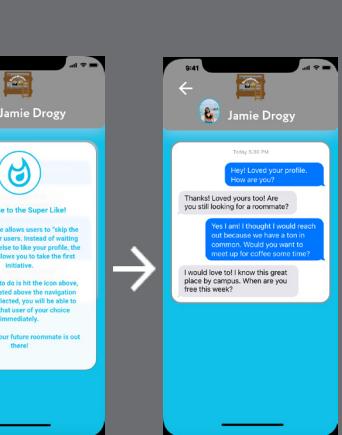
Switching from Friends page to Roommates page icon:



Switching from Roommates page to Friends page icon:



Task 5: Super Like Task

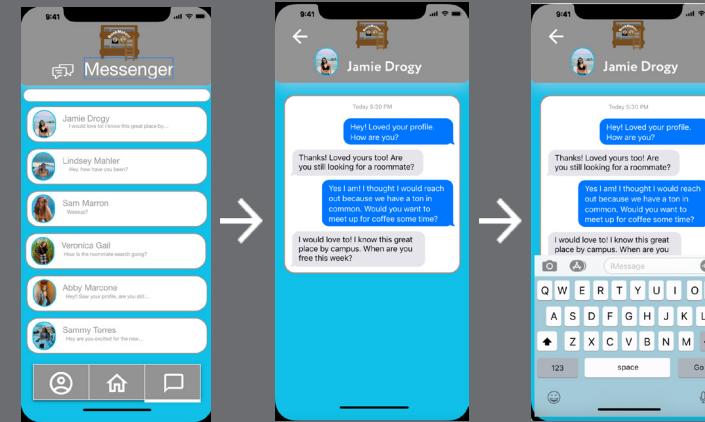


The super like button allows users to instantly match with possible roommates or friends. By clicking the super like button located underneath the swipe box, the user can instantly message the user of their choice.

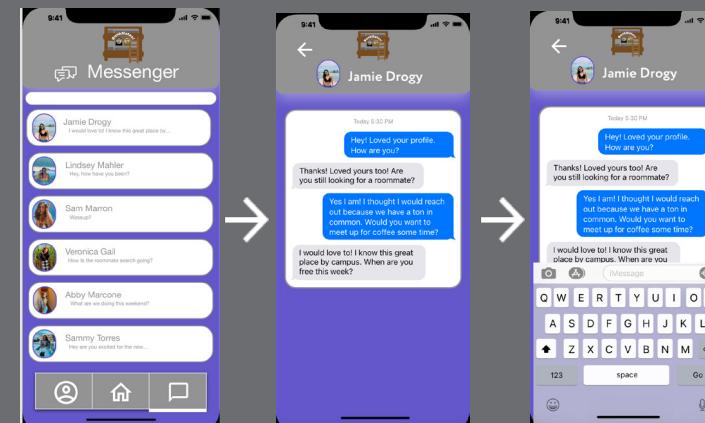


Task 6: Messaging a Roommate/Friend

Roommates Page



Friends Page



By clicking the Message Page button on the nav bar, you will be taken to the message board. In the message board, you can send and receive messages from potential roommates and friends.



Evaluation

The six key tasks that we modified to implement into the high-fidelity prototype are making a match with future roommates, messaging a roommate, matching with a friend, finishing a survey, making a profile, and the super-like task. After receiving feedback from the low-fidelity prototype, we added some new changes to the high-fidelity prototype. The first change is on the “create account” page. We wanted to make sure that we have two slides to signify where the user should input the information and then another slide with the actual information on the slide. Another issue we had with the “create account” page is how we had the users answering the questions. At first, we had the users simply typing in all of their information, and now we improved it for certain questions. For example, the user’s date of birth, we added in the calendar feature, where it will pop up for them to their data. We also added a drop-down menu bar to allow the user to select their gender and the year they are in school instead of typing it in.

Compared to the low fidelity prototype, we noticed that it was difficult for the users to indicate the “roommate” page from the “friend” page, so now when users are trying to switch back and forth they will see the text change at the top right of the screen as well as the background color. Another modification to this was adding a heading under the logo for both the roommates and friends page. For the messaging page, we ensured to create two separate screens to give the user a better feel while messaging. We also added a text input area in the text message section to allow the user to type.

A few more things that we implemented are the two sliders in the survey section. We made sure that users can indicate where to find the settings on the page with an icon at the top left corner. A new addition to the high-fidelity was the super-like feature. This allows users to instantly message potential roommates or friends of their choosing. This feature is popular among dating apps so we felt by adding it to ours, will only improve the user’s experience. The last few things we changed ensured consistent font type and size throughout all of the slides. Switching out the old “upload image” button to a plus sign for a better indication of what the user should do, making sure all of the back buttons and swiping animations are working, and going through the app to make sure everything works properly.

Participant

Participant 1 – Jamie Drogy

- Age: 21
- Gender: Female
- Education: James Madison University Media Arts and Design
- Occupation: Internship through James Madison University
- Technology Usage/Experience Level: High

Participant 2 – Charlie Stimpson

- Age: 22
- Gender: Male
- Education: James Madison University Undergrad Program
- Occupation: student/undergrad research assistant
- Technology Usage/Experience Level: Moderate to High

Participant 3 – John Smith

- Age: 21
- Gender: Female
- Education: James Madison University Biology Program
- Occupation: Undergrad student/ sales associate
- Technology Usage/Experience Level: High

Testing Methods

Participant Briefing:

Before we began to start our user testing, we needed to conduct a briefing so the participant understood how the test would be conducted and the purpose of it. We created the app, Bunkmates, to help college students find roommates on and off-campus as well as find friends with the same interests. By having a centralized app for finding roommates, it will be easier for freshmen and other college students to find roommates and have more common interests with them. You start by making an account, where you can verify that you are a college student, and which college you will be attending. We created a survey once you make an account. The survey was designed to have many personality questions and living habits to narrow down who the perfect roommate/s would be. The app is also designed like a dating app, kind of like tinder/bumble. There are swiping features as well as super likes and matching. You will be able to view the potential profiles by selecting the down arrow on someone's profile. Once a match is made by both people swipe right, you will be able to message them about either being roommates, friends, or both! There will be six tasks that you will need to complete today. You will be testing this on the high-fidelity prototype that we created to ensure usability for our app.

Tasks participants will be required to complete:

- Task 1: Sign-up/Login and complete the survey
- Task 2: Creating a Profile
- Task 3: Matching with a roommate/friend
- Task 4: Switch from Roommates to Friends Page and vice versa
- Task 5: Super Like Task
- Task 6: Messaging a roommate/friend

Pre-Testing Questions:

1. What did you use to find roommates during your time at college?
2. If you knew an app existed, for roommates, would you have used it?
3. Did you have any trouble finding roommates or friends on campus?
4. Are you comfortable putting personal information in an application?

Users will be provided with the prototype and begin testing

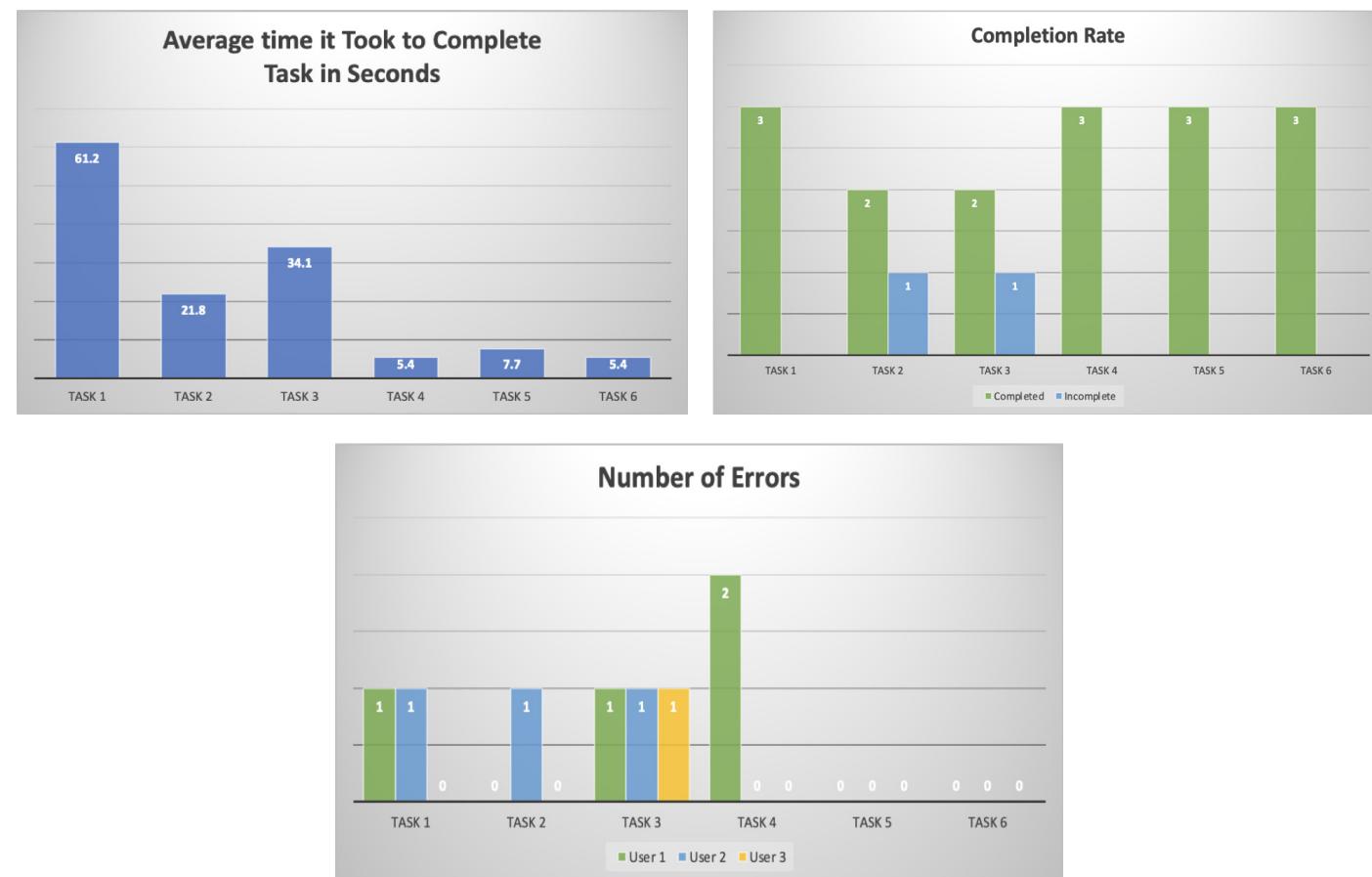
Test measures

- The amount of time it took to complete each task
- The task completion rate
- The number of errors for each task

Once testing is complete a short debriefing will occur where participants/users will be asked the following post-testing questions:

1. What issues did you come across?
2. Is there anything unclear to you about the app?
3. What did you find worked well with the app?
4. Is there anything you would change?

Findings and Recommendations



Charts

The chart findings for our user findings are shown above. The first chart shows the average amount of seconds it took for our participants to complete each of the six tasks assigned. It was clear that our first task, creating the account and taking the survey, took the longest amount of time. Tasks 4, 5, and 6 were more simple and took less time to complete. Next, we can look at the completion rate chart. Tasks 1, 4, 5, and 6 had a completion rate of 100%. Task 2 and 3 both had at least one participant that was unable to fully complete the task given. Due to those tasks having at least two people complete it, we know it is possible, just maybe needs to be made easier or more simple. The last task was to calculate the number of errors that the user ran into while trying to complete the tasks. According to the data user, 1 ran into the most errors while user 3 ran into the least. Task 3 showed to have the most errors out of any of the tasks. This was the matching with a roommate task. We had a few issues with the swiping so that most likely where the errors came from. Overall the charts were helpful for us to visually see the data we had taken during our user testing. We now know which tasks need to be approved upon.

Conclusion

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Throughout the semester, we have been working very hard to turn an idea into a prototype that can be a full-functioning app. This has been a long and detailed process for us. We had to first understand the problem we were trying to fix and create solutions to better our app. Many steps were taken to ensure the quality of our high-fidelity prototype. We went back and forth figuring out what was working for users and what didn't work. Along the way, we learned how to determine the main tasks we want users to perform and how those tasks helped the app function. We also had to discover what functions we need to implement as well as eliminate from our design; along with navigating through adobe xd. This has been an excellent experience for all of us to understand the time, effort, and skills it takes to incorporate important details and research when developing a working product.

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