

# **“INTERACTION DESIGN PROCESS”**

## **Project 1 ROBOTS**

***Carleton University, Ottawa, Canada***

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# Requirements Analysis:

## - *Overview*

The idea our team has decided on is to make an app which will connect registered users,. This app will be named “Appcountability”. This app is based on anonymous usernames, this will help the users protect their private information such as name, date of birth, location, etc. so that other users can’t have access to anyone’s private information. The target demographic of the app will range from the age of 15 upwards. There are two categories, one for teenagers and young adults which is ranged from 15 to 35 and other one is for ages ranging from 35 to 50 .

The purpose of this app will be to allow people to connect with those who have similar goals they listed in the app when they registered, these preferences can be changed anytime. Once the user sets their goals, the app will automatically show them different users who share similar goals and will allow them to add each other such as with other social media platforms. Once two or more users are connected, they will communicate performance goals where they can track the progress of the goals they had set for themselves. For example, Alisha wants to go to the gym everyday for 2 hours and she finds Simon with a similar fitness goal and they both try to go to the gym everyday and update their daily status on the app so they can reach the maximum results for their goals.

This app is very helpful for people who make goals but are not able to achieve them due to various reasons, such as not having friends with similar goals and they feel lonely because they give up. This app offers many versatile options including a location preference in case you want to match with a user in the same city so you can meet and work toward the goals on a regular basis. This app will definitely help people build motivation and obtain positive results.

- ***Persona - Amy (Fictional name)***

- Occupation: High School student.
- Demographics: She is 17 years old, living in Toronto, belongs to a middle-income family and is currently studying in public School.
- Goals and Needs: She is currently studying very hard to keep her grades up so that she can get a 50%-75% scholarship in one of the top 5 universities in the United States in her field. She is taking SATs as required by US admittance and participating in many volunteering programs to increase admittance likelihood.
- Pain points: Amy lacks a lot of focus due to which she is mostly unable to achieve the grades she wants. She usually plans to study for several hours but ends up going to her friend's house for the entire day.
- Relevant patterns of behavior: She spends 4-5 hours on her phone and plays a lot of video games on her laptop and does most of her studies on the internet by watching videos.
- Personality: "I have lots of tasks piled up and I am not able to finish them, I get distracted very easily by other activities, I need to set my goals and work really hard on them."

## ***2. Persona - Eric (Fictional name)***

- Occupation: Final year university student
- Demographics: He is 23 years old, living in Montreal, belongs to a low-income family and is currently studying on AFE (Aide Financière aux Études).
- Goals and needs: As Eric is graduating in less than 2 months, he is desperately looking for full-time job opportunities so he can start paying off his 4-year loan as soon as possible.
- Pain points : Eric lacks confidence due to his inability to attend networking events and poor performance during interviews. Due to this, he has not been able to make many friends at university.

- Relevant patterns of behavior: He spends most of the time in his room playing video games and studying. He avoids going out and mostly stays indoors.
- Personality: “I have been a very shy person since childhood due to not socializing face to face. I am more comfortable in chat groups where I don’t have to see the person.”

### ***3. Persona - Nancy (Fictional name)***

- Occupation: Civil Engineer at Alberta’s Infrastructure Inc.
- Demographics: She is 28 years old living in Edmonton, Alberta. She is independent and has recently paid all her student loans.
- Goals and needs: Recently, due to her genetic thyroid illness she has gained 15 kgs in the past 6 months and is actively looking for people who can accompany her to the gym and follow diet plans with her.
- Pain points: Nancy eats a lot of junk food due to not having time to cook for herself. She prefers tasty food and eats foods such as burgers, pizzas, poutine, fries, and pasta everyday. She gets bored at the gym easily by going alone and skips the gym for weeks.
- Relevant patterns of behavior: Waking up and grabbing a bagel from Tim Hortons, going to Boston Pizza for pasta or pizza during lunch and for dinner usually ordering from Ubereats.
- Personality: “ I really want to diet by having proper diet plans and also to go to the gym after work with someone who motivates me and shows their struggle by working hard on their physical fitness.”

### **1. Scenario (Amy):**

Amy downloaded “Appcountability ” a month ago and found Susan, Matthew and Abdul (Fictional Names) who were studying in the private school only a few miles away from her area of residence. After discussing their goals which were very similar and directly related to their studies they now meet every weekday in the library which is a central location of their city to spend 3-4 hours studying for the academics and standardized tests. As all 4 of them are in their final year of high school they have got along really well and decide to apply to the same universities by seeing their progress on studies.

As a result they have been achieving better grades on their weekly tests at school. They have also registered for upcoming SATs next month and have a goal to achieve 1400/1600 to get into the top university in the United States along with a scholarship. This app really worked out well for them and in the future they will still be using it so they can achieve as many goals as they can, especially once they get into their desired universities they would to work harder and focus on more opportunities.

### **2. Scenario (Eric):**

Eric downloaded the app about 2 weeks ago and met Nathan. Nathan studies in the same university as Eric in Montreal. Unlike Eric, Nathan is a second year student but he’s looking for Co-op during summers which is a similar goal to what Eric has. For about a week Eric and Nathan chatted on the app and have gotten comfortable enough to meet. Due to their introverted nature and activities, it took them some time, but now since last week they attended 2 networking events, 1 career fair, and various universities’ workshops to learn about networking and how to impress the hiring managers with your communication skills. It has turned out really well for them as they have been able to work well for their job search. Now they hang out as buddies and go out for dinner and beer at pubs every weekend. For Nathan, Eric is like a mentor as he helps him with other goals such as studies as well as they both belong to computer science programs. Eric is

able to help Nathan with his courses and gives him really good tips. For example, how to do well on assignments and exams by describing his own 4-year-long experiences he had.

### **3. *Scenario (Nancy):***

After downloading the app Nancy met Alice who was living in Calgary, 200 km away from Edmonton. Alice is suffering from a similar illness due to which her weight has been increasing dramatically and she has no idea how to control it. Unlike Nancy, Alice is a housewife with 2 kids, but due to being so occupied with house work and teaching her kids, she hardly gets time for herself. After meeting, they both go for a jog in the morning. To adjust their schedule, Alice goes after dropping her kids to school and Nancy goes before going to work. They both now do yoga at home while skyping on their laptop after 10 pm, when Alice's kids go to bed. They also play the same yoga video on their screens and follow the exercises. Due to not being in the same city they are not able to meet but they chat a lot in chat groups and video calls. Every week they have been tracking their progress and the results have turned out really well as they have lost a couple of pounds now. Fun fact: Alice is a really good cook and has helped Nancy a lot by telling her how to cook tasty and healthy dishes in a short time.

### ***Interview Script: ( Semi - Structured Interview )***

1. Can you tell me a little about yourself?
2. Did you make any or have you had any goals recently?
3. Do you record your plans somewhere, such as in an agenda?
4. How do you manage time and other things happening in your life?
5. What happens if things are unable to be managed properly?
6. Do you get easily frustrated and feel like giving up?
7. If you do give up, do you feel like starting again?
8. In your opinion, what would help you better achieve your goals?
9. Any friend or relative who works with you? How do you feel about it?
10. If there's an app [explaining in detail about the app first], which helps you find people with similar goals, how would you feel?
11. Do you think this will help you achieve your goals?
12. [Describing a persona and scenario].... Do you think that the app is working well for them?
13. What are your opinions on it?
14. Would you recommend any modifications to this app so that it is more efficient?
15. On a scale of 1-10, how much would you rate this app? Comments?

### ***General description of participants:***

The participants we have chosen come from various parts of the world. They have been chosen from: India, Pakistan, Brazil, the United States, Canada, and France. The reason we have selected participants from various regions is so that we can have more variety and opinions of different people belonging to different regions of the world. We conducted a phone interview with their consent, the audio was kept on the loud-speaker so my other teammate can also write some notes for the observation section. All of these 5 participants are females from the age of 16 to 50, some are studying in high school or university, others are independent, married and a single mother. They all have different lifestyles which will help us a lot to understand everyone's situations and goals better and give us different views towards the usage of the app.

### ***Interview with Participant 1 - Komal Khetpal ( From Pakistan )***

Komal Khetpal is a 16-year-old, grade eleven student currently seeking universities abroad for her higher education. Belonging to a very conservative culture, Komal is not able to find friends in her school who have similar goals like her to pursue higher education in a different country.

Komal has made some goals which are to attend international education fairs, study for IELTS and get good grades in highschool so she can be accepted in one of the good universities. Due to having a lack of knowledge on such a matter and not knowing anyone who is in the same boat as hers, her goals are not being properly met. Upon telling Komal about the app, she was quite impressed by the idea of having something which is helping her to connect with someone nearby who's interested in the same activity and can provide her with some information and motivation towards her goal.

Upon role-playing Amy's character, Komal was really enjoying it as Amy's struggles were quite aligned with Komal. She felt how Amy was struggling and how that could impact her future, but due to finding a couple of people who lived nearby and wanted to achieve something similar helped everyone's goals to be accomplished in a good, timely manner. Another thing Komal was curious about is the authenticity of the app. Her question was: "how would we know that people with whom we are chatting are only the ones registered on the app to meet people with similar goals?" Like they can be fake and just using applications for fun and passing time. Which was something that our team decided to find a solution for, so one faces such situations in which they don't feel safe.

Overall Komal liked the app and would love to use it if it's available to her, she rated this app 8/10 based on the idea and scenario we told her. It was really fun interviewing a teenager and knowing about her goals and approaches in life.



### ***Interview with Participant 2 - Akanksha Singhwal (From India)***

Akanksha is currently residing in Gurgaon, India. She is 30 years old and lives by herself with 4 female roommates. About six months ago she was diagnosed with PCOS (Polycystic Ovarian Syndrome) which is a hormonal disbalance in females causing infertility problems, increase of weight, facial hair increase etc.

After being diagnosed, she made a couple of goals in her lifestyle which were to eat healthy and go to the gym everyday as she was told by her physician that these things will help control her PCOS. Her lifestyle is very busy as she works in the morning at a corporate firm and in the evening she goes to the university as a lecturer. She has not been able to eat healthy nor is she able to go to gym on a regular basis. Akanksha feels very frustrated and does not know what to do which will help her to achieve her goals so she can overcome her sickness and feel happy about herself. Upon telling her the scenario of Nancy, Akanksha found her story quite interesting and motivating as Nancy found Alice and how she has been seeing significant results toward her physical fitness.

When Akanksha played Nancy's character she played it very well, she came up with more schedule adjustments which would help both Nancy and Alice to achieve their goals, this showed that Akanksha is a very creative person who loves to work hard towards her goals but due to lack of proper determination and resources she is unable to achieve her goals.

When asked if she would be interested in using the app, she showed interest as she saw how Nancy found someone with similar difficulties and how this app can be beneficial for both users, not just for physical fitness but for also mental health as talking to someone who has been struggling the same way helps to overcome the obstacles easily. We got really good feedback (8/10) from her regarding the usage of the app, how it also helps people mentally so we can make some improvements that will help in the mental health goals as well.

### ***Interview with Participant 3 - Deborah Fernanda (From Brazil)***

Deborah is a single mother of a 12 year old boy, she was hired as an air hostess by an international airline about a year ago. Since then, her life has been really busy and she is not able to do anything for herself. She feels sad about it and has finally given up as she made many goals but none of them would really work out for her due to so many things being on her plate.

A couple of weeks ago Deborah joined a yoga class, but she had to quit half-way due to the fact that she couldn't make enough time for her son as she has been on international flights every other day. As Deborah surpassed 30, she was becoming very conscious about her physical health as her skin started looking dull along with dark circles, after consulting dermatologists she was told to eat much more healthy food, do yoga, take sunbathes and most importantly, make time for yourself because if you are not happy inside, it wouldn't show on your face either. Deborah made many goals a couple of months ago but couldn't fulfil any of them due to not being able to properly manage her time. One more thing she realized was that due to her son starting his teenhood, his attitude has become very nasty when her mother remained at work over the course of multiple days.

Upon role-playing Nancy and Alice's situations, Deborah felt herself to be in the character of both women as they both had struggles as Deborah. One of them is an independent woman working hard, and on the other side, Alice is a mother of 2 kids. Deborah felt quite happy and excited when the scenarios of Nancy and Alice shared how with the help of the app, their life started changing for the better in terms of achieving goals. After hearing Deborah's reviews regarding the app (which were quite good), we also decided to add a Schedule Planner section in the app which allows the users to choose time slots where they have work/classes or other commitments so that with the spots which are left free they can easily schedule their goals. The app would then automatically start giving suggestions for upcoming days with different slots and options to assign your goals. Deborah rated this app 8.5/10 and said after having this feature in her app she will rate it 9/10, which was a really positive feedback for us.

### ***Interview with Participant 4 - Anita Khetpal (From the United States)***

Anita Khetpal is a psychiatrist in the United States. She will be turning 51 years old and retiring in a couple of years. As she is retiring soon, she feels rather depressed and wants to meet people in her age group who are retiring soon as well. Anita made a goal to attend some retirement classes in a university which offers such courses but she doesn't want to go alone, her husband is a real estate broker who can retire anytime so he can't accompany her either.

Anita tried to talk with her colleagues and patients at work about this, but most of them had plans to go on trips or spend time with their grandchildren. Anita felt quite disheartened and this has lowered her confidence. Currently, Anita is looking for people like her who would want to do early yoga, attend retirement courses and do related activities along with her so she is able to achieve her goals step by step rather than staying at home, feeling lonely.

After we told her about this app idea, and she role-played the character of Eric who has been trying to look for people who can go with him for job search events, after finding Nathan there were significant improvements in the life and confidence level for both of them which was quite impressive and as being a psychiatrist, Anita understood the characters in depth and felt how this would have impacted towards their mental health.

Anita is quite interested in the app, she asked many technical and cognitive questions about the functionality of the app which was very challenging for us as the team because we didn't make the app yet but during an in-depth app explanation, we brainstormed more ideas we can implement while making the app. Another thing Anita suggested was that if we launch this app, in the future we should promote it a lot, given that it is a very helpful application which would be used by most of the people if only they are aware of it. Overall she rated this app a 7/10 because despite not being so tech-savvy, the idea seemed very interesting and innovative as it's helping people to achieve their goals and show some progress in their daily life. Being a psychiatrist, she

appreciated the idea and said that this app won't help only in goals for people but it will also be so much beneficial for their mental health.

### ***Interview with Participant 5 - Coline Grd from France***

Coline is a 22 year old exchange student at Carleton University in Canada. Coline is new to the university and has only been here for 2 months. Originally, she is from France where she had a very social life, but coming to a new country everything has changed for her. She attended many exchange student events at her university but she couldn't meet anyone who was from a similar culture and had compatibility with her.

Coline now feels very lonely and is not able to focus much on her studies, after midterms a few weeks ago she felt she has been getting low marks due to her studying alone. Currently, her lifestyle is about going to classrooms, going to the cafeteria, then watching netflix for the rest of night. She has made many goals. For example, going to the library to study in a quiet space, but when she saw people studying in groups she felt lonely and returned to her room to watch netflix to busy herself. She also tried talking to people in the cafeteria where people come to eat food who live in residence but they already had friends so they didn't show much interest in hanging out with her.

Coline has set some goals to find friends, hang out with them, go to eat to gather and explore beautiful places in Canada but she hasn't had any luck in any of her goals yet.

When she was told about the app the very first question she asked was that how is it different from Facebook and Tinder, which was kind of very smart of her so it required a thorough explanation that this app connects people with similar goals unlike Facebook where you have to add people only if you know them and Tinder is a completely different app. It's a kind of dating app which connects people based on their dating partner preferences not goals. Upon playing Eric's character, his persona somehow resembled Coline's situation so she felt quite comfortable in his character and expressed some real-life feelings which Eric has been going through before he met Nathan. Coline was very excited about this idea and told us that if this app was available in the app store she would definitely download it and couldn't wait to meet people and hang out

with them. Coline rated this app 9/10 and really liked this idea, she also provided us with some ideas (i.e. when this app is launched we could affiliate it with the university so the university advertises and lets students know about it especially the new-comers like her.)

### ***Improved Persona and Scenario for Amy's Character:***

- Before being able to access the app, Amy was spending most of the time in activities which will not be contributing much to her goals which are to get into a top university along with a scholarship.
- Her daily routine is waking up, going to school, attending classes, coming back home, playing video games, and on weekends she prefers to go to her friend's place. She has made a lot of goals for her future, but they are mostly ignored because when she comes back home after school she feels tired and less productive.
- After downloading the app, she met a couple of friends who were in the same school as her, she met them by setting her app's location to nearby only. They all were her mutual friends about whom she didn't know much as they never really talked.
- They had the same goals as her in high school, that's why they get along well in group chats.
- Now they meet at the school library and study for a certain number of hours. As a new feature in the app was launched which let you show slots in which you book other important commitments, this helped greatly to schedule their time in meeting despite having different classes.
- This strategy contributed greatly as they saw a steady increase in their weekly tests and their progress was very productive.

### ***Improved Persona and Scenario for Eric's character:***

- Eric is a fourth year student at a renowned university which shows he is a very hard-working or intelligent student.
- As Eric was an only child he spent most of the time alone with his family, but due to being admitted into a university in another city he had to move away from his parents.
- For 4 years he was mostly by himself and spent most of the time studying, playing video games and talking to his parents.
- For a couple of weeks he was looking to find a job but he realised that he had to socialize and attend networking events to help him explore more opportunities but due to his introverted and shy nature he wasn't able to achieve this goal.
- Eric downloaded the accountability partner app and met Nathan who belonged to the same university but was a year younger than him. He also had similar goals but due to being a transfer student, he was admitted as a third year student and most of the students in class already had study groups, partners, and friends.
- Eric and Nathan got along really well because of their similar goals and program they were into.
- They now went to gather at all the events hosted by the university and the city, their confidence level was really good as due to being with each other they were there for each other for support.

### ***Improved Persona and Scenario for Nancy's character:***

- Nancy is an independent woman who lives by herself and works for a top engineering firm in Alberta.
- Nancy was recently diagnosed with a thyroid condition which led her weight increase of 15 kgs in just 6 months. Nancy, due to her busy work schedule, eats junk food often and doesn't go to the gym at all. After being diagnosed, she made many goals to follow a healthy diet and go to the gym regularly but nothing worked out really well for her.

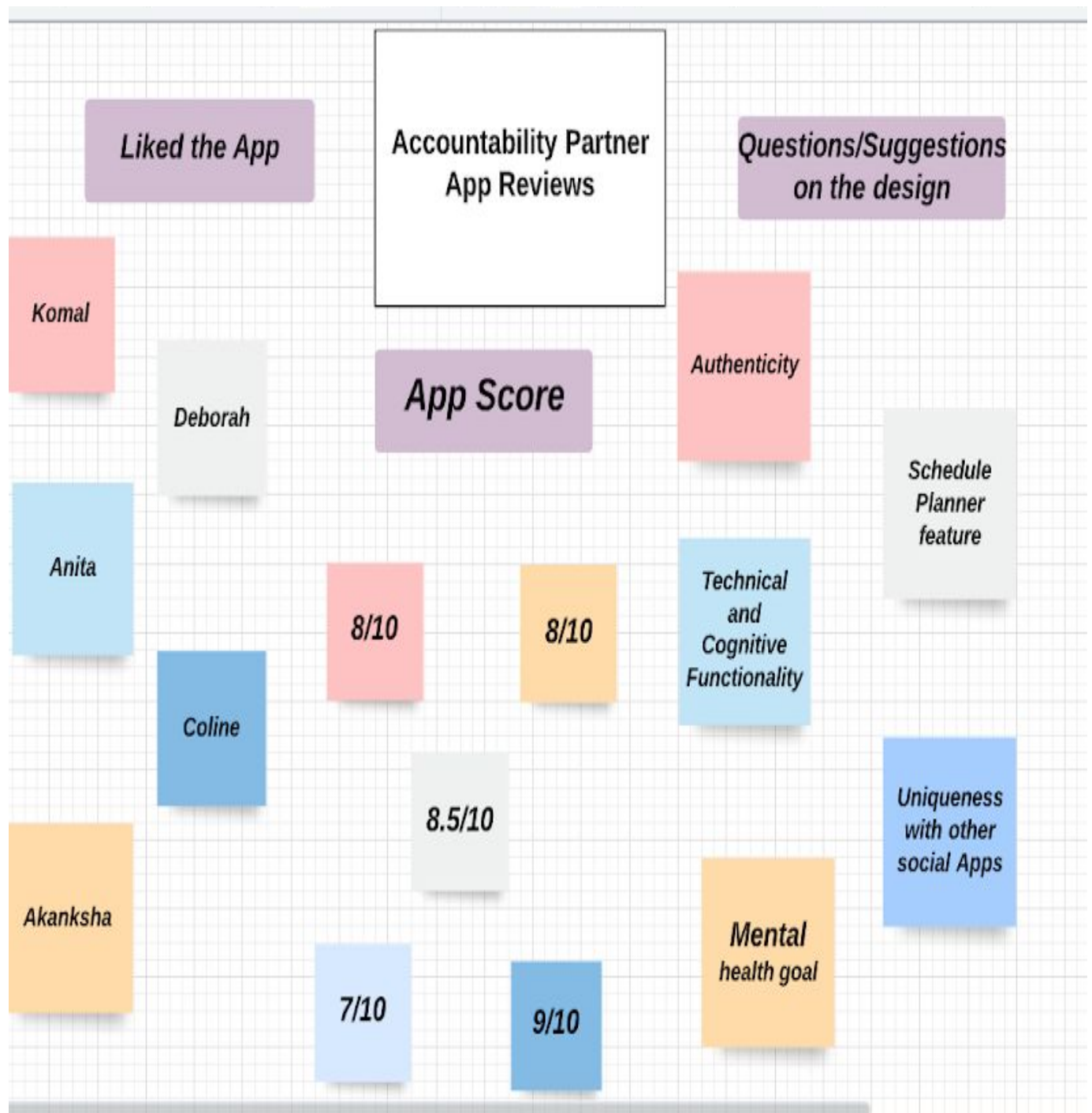
- She heard of an app called “Accountability ” where she met Lucy. Lucy lived in the same neighbourhood as Nancy. Lucy was a recent graduate who was diagnosed with PCOS in her final year of the university and stayed depressed most of the time.
- After talking on the app, they started meeting in a nearby park and did some jogging and yoga there.
- As their work location wasn’t very far they met for lunch and dinner everyday at a cafeteria where they ate salads and drank smoothies which would help to keep them fit.
- After couple of weeks they could see significant results in their weight which was really impressive as they could finally lose weight, eat healthy, and maintain a healthy lifestyle,
- They also met some other women in the city who had similar diseases and goals and formed a group where all of them did such activities on a regular basis.

**Diagram 1** Shows what we observed after interviewing all 5 participants and the common goals they have.



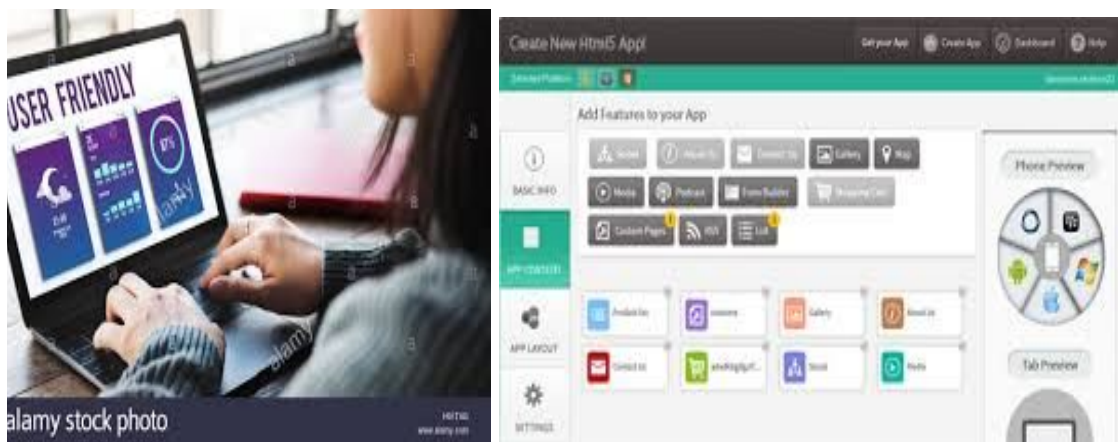


**Diagram 2 : Observation of Participants Reviews on the Idea ( Accountability Partner )**



## Description of Key Requirements

- Design an app which is user friendly and easier to use by any age group like most of the top social apps.
- Top priority will be given to privacy of information so no one can access anyone's information without their consent.
- The app will allow you both to make original or anonymous IDs but one should have an original email to register so one cannot scam.
- The font will be simple , back-ground colour of the app will be full of motivating colours as it's based on achieving goals.
- Has a “connect” call to action button to the user you would like to connect based on their profile and goals.
- The app will also provide a block/delete option for people you would not like to talk to anymore.
- Once someone is added in your account they can also see your daily schedule which you set so you are able to sort out the time where you want to work on your goal.
- This scheduling feature also provides a chart where one can update their daily achievements to be shared with the group of friends.



## **Initial Design alternatives**

### **Prototype I - APPCOUNTABILITY**

The name of the the design is Appcountability , which will connect two people with similar interests, who can motivate each other and progress in chosen topics. It has improved design based on users feedback. This app is solely based on anonymous usernames , this will help the users to protect their private information such as name, date of birth, location etc so other users can't have access to anyone's information unless the user doesn't want to hide their information. When users open app for the first time, it provides a demo for the user like clicking on chat session and in that managing setting for blocking and sharing personal information. The app is more useful because it analyses the data based on the minutes of interaction, new words learned, taking meds daily, losing or gaining weight, and exercises. By the end of a week it shows all the calculations and progress a user has made. Moreover, its interaction design is made more intelligible by keeping colours with psychology in mind and unlocking new features per week. The app will also give a countdown if the other matched use hasn't responded within a day, to keep the reliability of the app. As for signing up, the user can build their own profile and preferences from scratch, or they can choose to signup with an existing social media account (such as Facebook or LinkedIn) which will make the signup process easier. After signing up, it is very easy to use just one click to talk to a person with a button of settings to manage the other users. This design has a lot of advantages because it provides security of information, easier to use at any time with less steps to perform a specific time of functionality. The users can easily remember the operations because most of them are one step. It also uses micro interactions. Such as after signing up it makes the sound of a plane taking off, notification rings, unlocking rewards or new match etc. It has a very neat and fresh look with clear indications (not congested). There is use of constraining so that personal information sharing can be enabled and disabled. The app also has an easy to use block button (one for each side) to protect the user from internet trolls and online harassment. As for sharing information, it asks for confirmation so that it ensures that the user hasn't mistakenly pressed on the enabling button.

## **Prototype II - APPCOUNTABILITY-EXT**

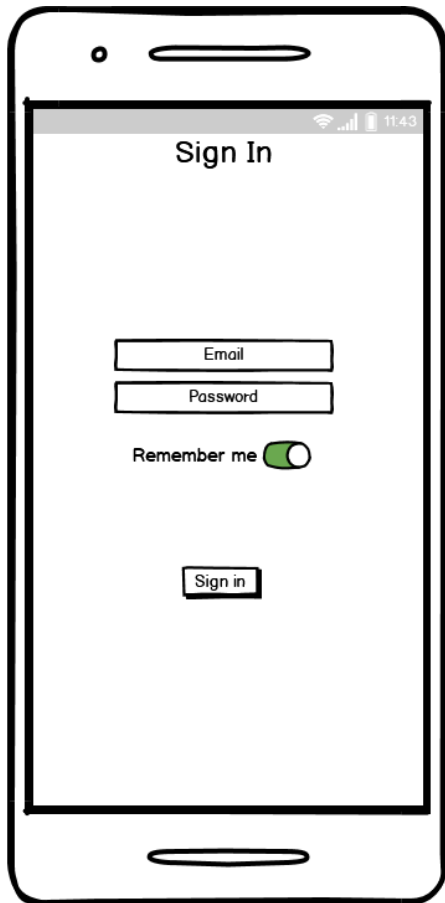
The name of the the design is Appcountability-Ext , which will connect two people with similar interests, who can motivate each other and progress in chosen topics. The app will be similar in terms of the signup, calling, chatting, weekly reports and reliability, but will be more visually appealing. For extra security this design will have a recaptcha box to protect against viruses and bots. This version of the app will be very reliable in terms of user preferences, because the user can now specify alternate options, the subcategories of those options, their hobbies, and high level of education. This will allow better matching to occur. There will be weekly statistical reports which will be similar to the previous design, however, this design will feature better colouring, as well as reports per topic. After selecting gender and age, the user can also choose their sticker for their profile to make the app more interesting but keep the anonymity of each profile (if the user wanted they can send an image through private chat but never on their profile). For matching, the user can choose to abort if before a match is found, which is a common operation for any queue system. Moreover, there's an extra feature of group chatting in which there's a limit of 10 people and each user is depicted as a button if we click on it their messages and replies will pop up. Each person will have a turn which will be decided by computer. If a user doesn't start writing in the next 45 seconds, then the turnover countdown of 30 seconds will start and the turn will be provided to the next person in line. Also, if a person is abusive and harassing the vote will be conducted to block the person from group chat **UNANIMOUSLY**. This will be extremely safe because the users in the chatroom are totally random and don't know what eachother looks like, so it will prevent bias when voting people out. The group chat system will bring spice to what is usually a one on one chat, so the user can feel more comfortable in a community environment.

## Design 1: Speed and Efficiency Orientation



At first use, the user will be welcomed with the main page (Figure 1). The main screen presents the user with the simple choice to either sign in or sign up. This choice is represented by two large buttons.

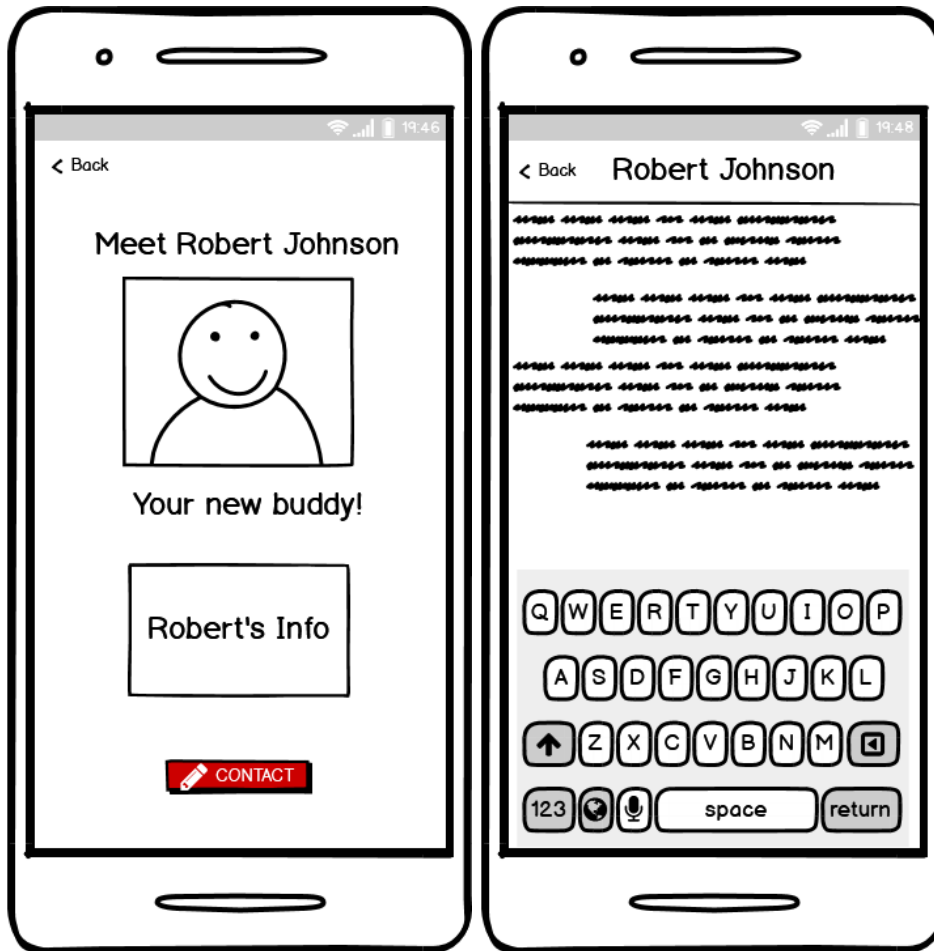
The sign in page (Figure 2) is accessed by selecting the “Sign in” button on the main page. It gives the user the option of signing in via 3rd party (represented by 3rd party logos forming a quasi-sidebar), signing in with email, or registering (in case the user intended to select “sign up” at the main page).



A selection of “Sign in with email” at the sign in page will direct the user with the login page (Figure 3). This is a simple login page with user inputs for email, password, and the toggleable “Remember Me” option, as well as the “Sign in” button at the bottom.

The image displays two mobile application screens for a registration process. The left screen, titled "Registration", features a "Back" button and input fields for "Name", "Email", "Confirm Email", "Password", and "Confirm Password". Below these are radio buttons for "Gender" (Male, Female, Non-Binary) and a "Date of Birth" field with a calendar icon. At the bottom, it prompts the user to "Please select a category to focus on" with a search box. The right screen continues the process with "Any hobbies?" search, a "Highest level of education" dropdown menu (showing options like "Some High School", "High School", "Some College", "College", "Some Undergraduate", "Bachelor's Degree", "Master's Degree", "Ph.D."), a question about matching preferences with "Yes" and "No" buttons, a "ReCAPTCHA" checkbox, and a "Begin Adventure" button.

The registration page (Figures 4 and 5) is where the user provides additional detail regarding themselves. If they registered via 3rd party, the name, email, gender, and date of birth fields will be autofilled. The user must still select category and hobbies via search boxes and education via dropdown. Following this is the option to allow matching with a less related topic, the user selects via buttons. A simple captcha follows, as well as a “Begin Adventure” button to start matching. Due to the length of the page, the user may scroll to reach further questions, however, after completing a field, the page auto-scrolls.



Once matching completes, the user is presented with a profile page (Figure 6) with all the information the matched user provided (name, date of birth, education, etc) as well as a profile picture taken from a 3rd party if the user chose to sign in via 3rd party. Below the matched user’s info is the “contact” button which takes the user to the contact page (Figure 7).

The contact page is where all communication between users would take place. It is a relatively standard IM chat screen featuring the name of the user, a message log, and keyboard.



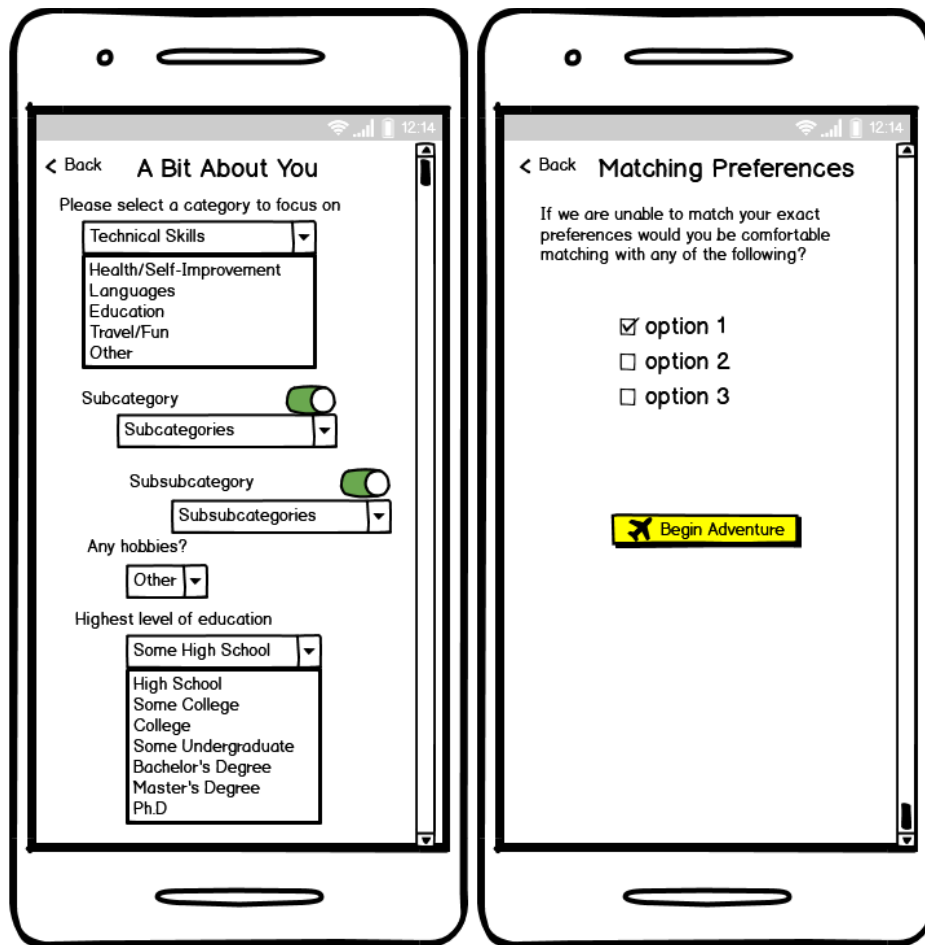
## Design 2: User Experience and Preference Orientation



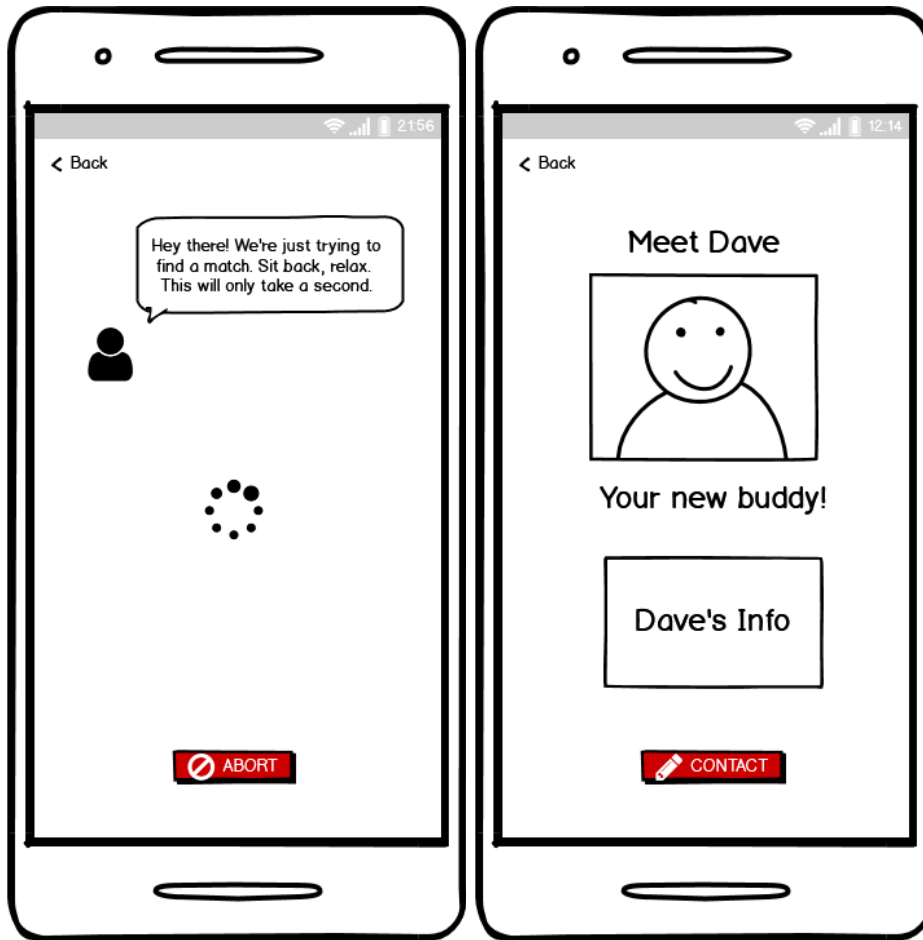
At first use, the user will be welcomed with the main page (Figure 1). The main screen is optimized for signin via 3rd party, as can be seen by the large size of the logo buttons. There is also the alternative of creating an account manually, this is to allow users who dislike, or simply don't have social media to access the full functionality.

If a user chooses to create an account manually, they will be prompted with the account creation page (Figure 2). This has text input fields for name, email, and password as well as appropriate confirmation fields. Following which are the gender and age fields. These are radio buttons and numeric dropdown respectively. Lastly, there is a simple captcha followed by a submit button.

A selection of either a 3rd party signin or the submit button will proceed to the preferences page.

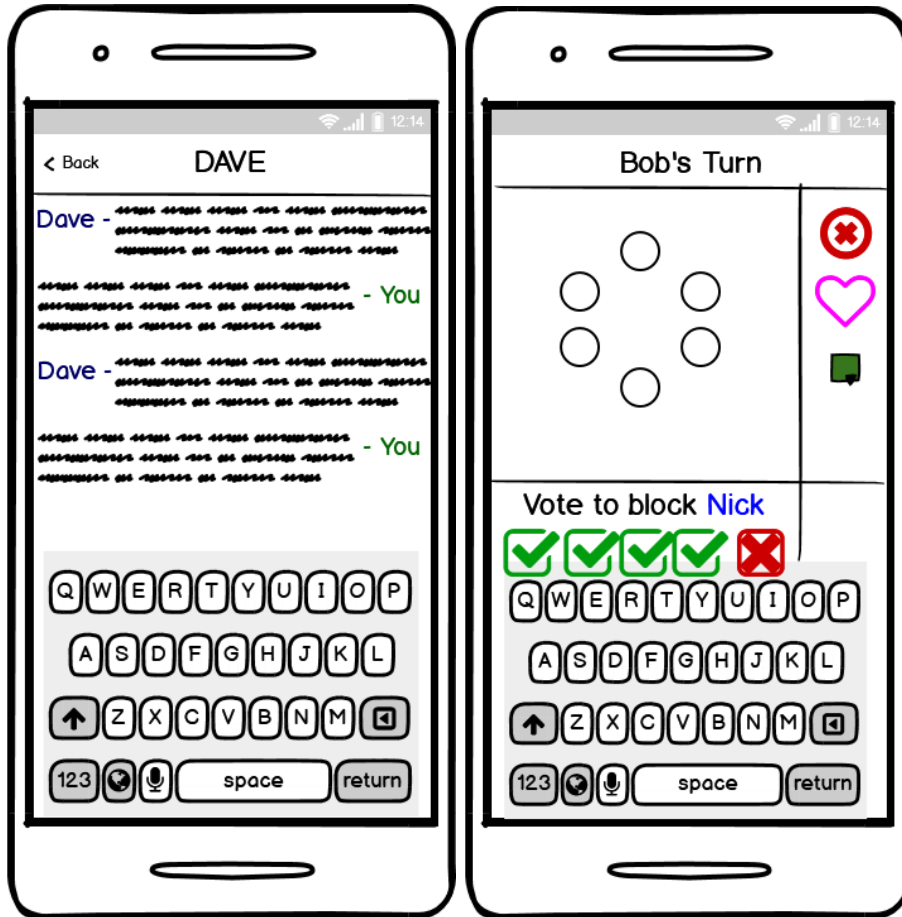


The preferences page (Figures 3 and 4), is where the user provides the details to assist with matching. The category field is a dropdown of broad topics. The subcategory field is a dropdown of more specific topics, and the subsubcategory field is a dropdown of the most specific topics. If a user so chooses, they may disable either the subcategory or subsubcategory fields and focus on a more general topic via toggle switches. The hobbies and education fields are both dropdowns as well. Scrolling further, the user will reach the option to match with related topics if no-one is available to match their exact selection. Finally, a “Begin Adventure” button exists to begin the matching process.



Following the selection of the “Begin Adventure” button, the user is presented with the matching page (Figure 5), which is essentially a glorified loading screen. There an avatar will explain to the user that matching is in progress, followed by a loading circle, and an abort button, which just returns the user to the preferences page.

When matching is finished, the user is presented with the “buddy” page (Figure 6). This page simply displays an anonymized profile page for the user’s new match. A fake name, an avatar, and basic info are all presented so that despite the anonymity, the user can still feel as though they know about their match. There is a contact button at the bottom which leads to the contact page when clicked.



The contact page (Figure 7) is used for communicating with your “buddy” and is a relatively standard text communication interface to avoid unnecessary confusion. Featuring a message log and keyboard.

The monthly meetings page (Figure 8) is uniquely accessed once a month via push notification. It is an organised method of group chatting with several users working on a related topic. The other users are represented by a polygonal array of circles, clicking each of them allows you to see that user’s profile and give options such as private message or blocking. There is a sidebar featuring a “leave meeting” button, a “like” button, and a personal chat colour selector. When a user initiates a vote to block a user, there would be a vote box just above the keyboard specifying the user to be blocked, as well as the vote status.



The progress page is accessed through the user's profile and provides the user with a record of their progress as well as a reminder of their goals. The progress could be shown with either progress bars (Figure 9) or percentages (Figure 10), but either way, the progress would progressively change colours from red (low progress) to green (complete).

Steve is a kinesthetic student, he has trouble focusing. As such, his grades are dropping. He simply doesn't have the motivation.



Steve hears about a new productivity app designed to help motivate him, so he installs it.



Over the next few weeks, Steve gets to know his new buddy. They're both learning Bulgarian, and for Steve, this makes his competitive side.



Thank you! GAA-SAA!



As a result, Steve is focusing much more and his grades are rising steadily as he learns to develop a good work ethic.



## **PROTOTYPE EVALUATION AND ITERATION:**

### **Walkthrough of Prototype II - Accountability-Ext**

To start with the prototype, we would like to proceed with the second prototype as it delivers more functionality, and more sub-topics. Firstly, the user signs up either using email or one of the signups with facebook, twitter, or LinkedIn. If the user signs up with email then the user has to give fill in age, gender, hobbies, and highest level of education manually otherwise signing up with apps takes necessary info and skips to the topic choosing part. Now, the user can choose any topic then the subcategory of that topic shows up automatically, so that the matching can be more specific. If subcategories aren't found then we will provide them with the next 3 similar interests. On the next screen, there's an aeroplane that takes off sound when a user clicks on begin adventure. Thereafter, the user has to wait for the match, when there is a match found it will be based on the same subcategory. If not, then based on category and hobbies the user has to choose the first, second, and third preference. Whenever the user is matched with someone there is an anonymous name and hidden profile with only similar interests shown on screen will be provided. There is also a cancel button on the top right corner of the screen, if the user wants to decline the match. If the user wants to proceed then the user will have to click on the contact button which is in the middle of the screen. When a user clicks on it there is a hover design attached to it which makes it look like the actual button is getting pressed. Secondly, the chatting starts at this point, also there is a settings button provided on the top right which can be used to handle the settings of a matched user such as if a user wants to share his information then he can click on sliding button. It will ask for confirmation to check if the user hasn't clicked on it mistakenly. After confirming the user will be sharing his name, gender, hobbies, and highest level of education. Also, the user can share his/her location as well if in future they want to meet up and start their goals together. If the talk consistently for a week then for every week the capacity of having matches will be increased on the basis of average interaction per week. However, if one of the users misbehaves then there is a report abuse button also provided in settings which will again ask for confirmation and reason of reporting the user. In case if the user ignores another user for 24 hours then another countdown of 24hrs will be provided to the user. If the user doesn't respond then the match will be removed. Moreover there is another

functionality provided which is more of a group meeting which will be happening once a month. The notification will come on the users screen and the capacity of each meeting will be ten members. Where if each user will be depicted on screen as a small circle. For abusive people there is a vote to ban them from meeting. Also there's a countdown if the user doesn't respond then the turn will go on to the next person in round. It will be automatically moved on by computer. If a user says "I have been clean for like 10 months now. I haven't touched drugs" then people can like their message and appreciate them. And in the end they can always leave by clicking on the cross button.

## **Wizard of Oz Testing ( Iteration 1)**

We conducted the Wizard of oz testing by using Teamviewer software with 3 participants: Komal (A), Akanksha (B) and Deborah(C). I opened a powerpoint presentation on my laptop with all the sketches for the design we have chosen, along with commenting options with each slide. With this Teamviewer software I was able to see the activity of each participant with each sketch they interacted along with their comments on them which were saved with the associated sketch with which they were shown.

On the sign-up page, Participant A chose Twitter and participant B chose to sign up with their Facebook account due to being highly active on each respective social media platform, but participant C chose to select sign-up with email option as she didn't use any social media on a regular basis.

After signing up, they were shown the preferences page, where they were very happy to see so many options to choose where they could tell more about themselves. Participants A, B, and C all preferred just one subcategory rather than using toggle switches to have more sub subcategories instead. After filling up wide options they were then presented with the matching preferences options page where all participants chose different options due to the wide range of information



they provided in the preferences page. This was all about signing up and filling up information related to themselves.

The “Begin Adventure” call to action button was praised by everyone, after displaying the user and its info, participant B added a comment about having another call to action button next to contact so the user can skip that user if they don’t like that person based on the information. Participants A and C however proceeded with the contact button and liked the idea of chatting to the user. The additional feature of blocking or leaving the meeting was also liked by all participants and they wanted to keep this feature in the app but make it more user friendly.

The stats page which shows the progress of the user can be accessed through user’s profile or push notifications was a unique feature which all participants found quite impressive. The option to set languages, progress options, and the measuring criteria was very flexible which gave all the participants freedom to set according to their preferences in which they much enjoyed. Participants A and B found the progress colour very visually attractive.

## **Wizard of Oz Testing ( Iteration 2)**

We conducted the Wizard of Oz testing by using Teamviewer software with 3 participants : Akanksha ( A ), Anita ( B ) and Coline ( C ). In this iteration, I again used a Powerpoint presentation to make it viewable and editable with the participants along with response page so I can record their activity and save their responses on my Powerpoint file.

On the sign up page, Participant A this time chose LinkedIn due to being active here after Facebook, participant B who was not that tech-savvy chose the email option and participant C chose Facebook to sign up. Seeing three different sign up methods from different participants it was a great idea to include many options to choose from. After signing up they were then shown the preferences page. All participants chose their own preferences but Participant B took a while

to select options and she had a couple of questions about the toggle switches as well as she found them confusing.

After all participants selected their preferences they then proceeded to the matching preferences. Participant A chose the first 2 options as she is very conscious about her choices. Participant B chose the first one as she doesn't want to contact many people before being able to connect with the most preferred one. Participant C had chosen all 3 options as she was very excited to meet as many people as she could so she wasn't concerned much about exact preferences. They also liked the call to action button "Begin adventure" but Participant B had some suggestions about the aeroplane logo because she didn't find anything related to aeroplane after this page.

After being able to see the wait page, they saw the other user's match, participant A and B here preferred to see the user's info before making contact with them itself. Participant C in this situation chose to contact the person and wanted to start chatting right away. On the monthly meetings page, Participant A took some time understanding the functions of setting colour etc. whereas Participant B needed thorough explanation that how would this feature be used as it consists of so many participants coming out of nowhere. Participant C did not look much at this page as she only wanted to access it once she starts contacting multiple people.

Finally, on the progress page all participants seemed equally satisfied with this unique feature which shows that the app really cares about its users as it has many options to choose the tracking measurability and customized goals option for the users. The coloured progress option was appreciated by every participant because of its visual attractiveness.

## **Design Improvement and Introduction of new visual elements after Wizard of Oz Testing ( Iteration 1)**

After performing the Wizard of Oz testing with 3 participants , observing their behavior and taking their comments in consideration our team has decided to make the following changes in our design.

1. For the Sign up page, we decided to add instagram, and snapchat option as well , by observing the behaviour of the participants we wanted to add more 3rd party sign up social platforms to make the app more accessible by featuring additional social media options so the user has a variety of top social media accounts to choose from.



2. On the preferences page we have decided to remove the toggle switches of sub category as none of the participants used that feature also it was making it look more confusing, to keep the design as easy for user interface purpose we will not have the toggle switches anymore, Subcategory option will now be optional for the users to fill that.
3. For the Matching Preferences Options page we have decided not to make any changes as it was very easy to understand and use by the participants.

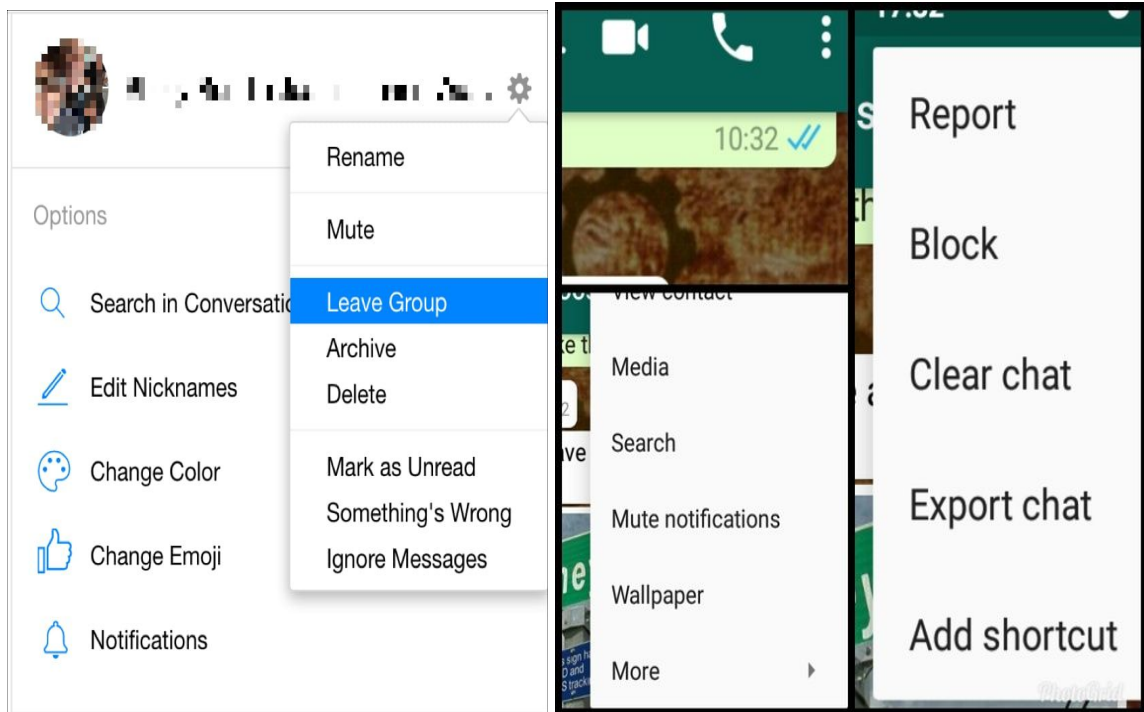
4. As suggested by participant B,, we have decided to add a “skip” call to the action button next to the “contact” call to action button. This additional button is very useful for all kinds of users who after reading the user’s information don’t feel like contacting them for any purpose. This skip option will also let the user see other matching users and read their information to decide if they would like to contact them or not.

**Contact**

**Skip**

5. We have decided to make adding more members and blocking members option in a group chat easier. Now the user will have another chat window which will for group chat purpose only, this will have additional options on the side of the chat bar where one will be able to block a specific person or leave the group on just one click.

Below are some of the designs we are looking to follow which are used commonly on Facebook and Whatsapp :



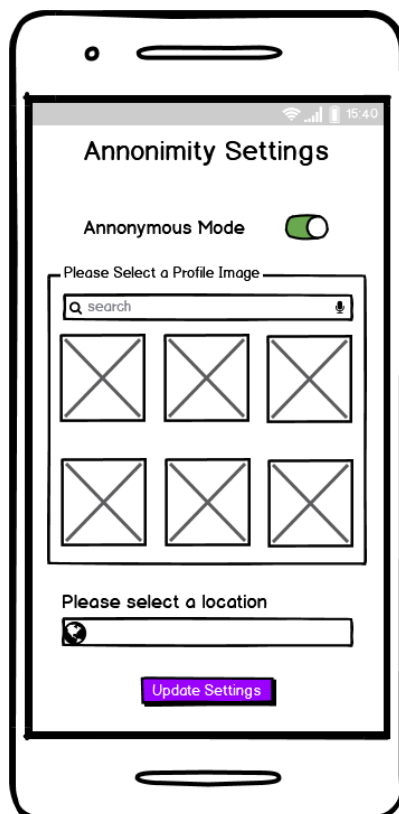
## Design Improvement and Introduction of new visual elements after Wizard of Oz Testing ( Iteration 2 )

After performing the Wizard of Oz testing with 3 participants , observing their behavior and taking their comments in consideration our team has decided to make the following changes in our design :

1. On the cover page we have decided to add a call to action button “ Let's start the App tour”, this button will be linked to the video in which we will show a tutorial video, step by step on how to use the app and introduce all the features that are enabled in it. The purpose of this video will be that there are many users who are not tech savvy and have difficulties understanding what the app is about, therefore this tutorial video will solve all their questions/doubts regarding the app.



2..After one finishes up signing up they will now be taken to a page where they have to set their anonymous user name and information. Below is the prototype of how this page will look like :



This feature now lets the users choose if they want to keep their original information as the information which is visible to other users or after signing up they can activate the “Anonymous mode” and chose to use any random name, profile picture which they can download from web or gallery and select any location of the world. By activating this mode, the social media profile will only be used to login and will not export the name and profile picture anymore. Location GPS will still be active to show you the users who are near you but no one will be able to see what is the location of a specific profile if they have this Anonymous mode on.

3. Toggle switches of sub subcategory will now be removed and only one sub-category option will be provided which will be optional for users to fill them out.

4. On the Matching Preferences Option page we have decided to modify the “Begin Adventure” call to action button by removing the aeroplane symbol next to it , now when the user clicks the button, they will be shown with an aeroplane flying below for few seconds till the page is updating and saving information on the profile



5 . We have decided to make options such as adding more members and blocking members in a group chat easier as it was being difficult to understand by one of the participants. Now the user will have another chat window which will be for group chat purpose only, this will have additional options on the side of the chat bar where one will be able to block a specific person or leave the group on just one click. ( examples shown on Iteration 1 modifications part )

6 . Finally, on the Progress page we have decided to add the “ + “ option at the upper right corner of the screen which allows users to make changes such as adding or removing goals of their choice, and choosing an option to modify their progress, which is by percentage or tracking box. This feature will definitely improve usability as the user has no need to go all the way back in settings to modify their progress criteria.



## **Usability Inspection Evaluation #1:**

**1.Visibility of system status:** One usability issue observed is that to keep the profile anonymous completely should depend on the user then why is there importing information from social media is an option?

**2.Match between system and the real world:** In the real world vs system it's a challenge to protect one's details therefore more security measures should be taken so one user is restricted to make on user id with a verified email.

**3.User control and freedom:** User's freedom is restricted in some areas, like anyone can read info about them and send a message. If a user gets any message from another user they are not connected they should be able to block them immediately.

**4.Consistency and standards:** To maintain Consistency all the calls to action buttons on all the pages should be of one colour or 2.

**5.Error prevention:** To prevent someone from being able to access the users information, Anonymous mode page should be presented at the beginning and be explained thoroughly why it is so important.

**6.Recognition rather than recall:** The app should ask the user a "tick" or "save" while they are setting their preferences so it saves until the user decides to change.

**7.Flexibility and efficiency of use:** On the Anonymous information page and Preferences page there should be an "advanced settings" option added so user can add more complex information which helps restricting the users to be shown as suggestions to connect

**8.Aesthetic and minimalist design:** All the call to action buttons should be restricted to 1-2 words per button, limited words should be displayed when performing preferences and settings on the app. For user information, one heading should be limited to 10 words so it prevents users from writing long paragraphs which will make other users read too much.

**9.Help users recognize, diagnose, and recover from errors:** Error messages should be only limited to 2-3 words rather than long sentences; For example "Invalid email".

**10.Help and documentation:** A help icon should be there at every page which will let the user search answers to the questions/doubts they have i.e "How to block a user?".

## **Usability Inspection Evaluation #2:**

- **Visibility of System Status**

When a user chooses to sign in via 3rd party, this could potentially impede the system status update to the user as it would be up to the 3rd party to update the user during the linking.

- **Match Between System and the Real World**

In an ideal system, the user would be safe from all violations of privacy. The nature of matching users however, requires more user information for a better match. So a user may perceive a more thorough match as a breach of privacy.

- **User Control and Freedom**

Each page features a “back” button in the upper left-hand corner. This is to allow the user to return to the previous page without requiring any other interaction on the current page.

- **Consistency and Standards**

In order to achieve consistency, each page has a relatively standardized layout and colour scheme. Although this may still be improved upon by making each page ever so slightly more similar.

- **Error Prevention**

User input is highly restricted. Most likely user errors are with raw input fields in which the user may input anything they so choose. We attempted to eliminate as much raw user input as possible, replacing most with checkboxes, radio buttons, or dropdowns. As for the remaining raw input, heavy filtering should be implemented to prevent users from injecting scripts or simply bad text.

- **Recognition Rather than Recall**

For the most part, the user is presented with easily recognisable icons such as a globe to indicate location or logos to represent each 3rd party application. However, there are areas where we could potentially replace text with icons to convey information to a broader audience.



- **Flexibility and Efficiency of Use**

The current state of the app requires traversing a tree of pages in order to reach a desired page. We could modify this to allow the user to add shortcuts to frequently used pages such as a link to the contact page from the main page.

- **Aesthetic and Minimalist Design**

The dialogue given on the matching page could be made more concise.

- **Help Users Recognize, Diagnose, and Recover from Errors**

Error messages can be added if a user inputs invalid data. For example, invalid character set used in a password.

- **Help and Documentation**

The addition of a help icon at any user input field to explain the field if required (ideal not required), could prove beneficial.

### **Usability Inspection Evaluation #3:**

- **Visibility of System Status**

The app has a good interface whenever there is a meeting going, there is constant sharing of messages between a group, but whenever the user is online there is no green symbol of showing a person online.

- **Match Between System and the Real World**

This app makes use of micro interaction like making small sounds for tapping on the button and gives a feel actual pressing of buttons using hover design.

- **User Control and Freedom**

The user has the ability to manage the matches, sharing of personal information and location same with meetings. The user can not choose two different categories. If he has chosen one then he has to choose one sub category.

- **Consistency and Standards**

The app has a clear indication for every step, each button does something which is visible and understandable. From signing up to chatting with another user it provides simple one step functions.

- **Error Prevention**

For error prevention this app provides a really good interface. Suppose if a user mistakenly clicked on sharing information it will ask for confirmation, same for voting in meeting as well.

- **Recognition Rather than Recall**

The app has visible icons and buttons which have clear indications. The user doesn't have to memorize the steps to block a person or share information.

- **Flexibility and Efficiency of Use**

When the user signs up the user will have to choose category then it will sort down to sub category, so that the matching process will be more interesting and talkative. If the app can't find the match with that same category or subcategory then the user will choose from 3 preferences. I think the app provides nice efficiency.

- **Aesthetic and Minimalist Design**

This app doesn't provide any irrelevant information, just the waiting steps like "waiting for a match", "Begin the adventure". It uses simple and clear information.

- **Help Users Recognize, Diagnose, and Recover from Errors**

The app doesn't provide any error messages. However, if it can not find a match it asks for input from the user in terms of other hobbies or other closest categories.

- **Help and Documentation**

For the new users the app provides a demo, the gesture for opening chats and settings, managing them. In group meetings it is simple enough to vote, the keyboard to type, like a message, and report a user.

#### **Usability Inspection Evaluation #4:**

- **Visibility of System Status**

The app does well in terms of visibility and Status. The user will always be informed about which button to click because they will light up and are different colours. The user will always know when they found a match because a new screen will pop up. The app also gives a countdown if they haven't talked for a while either in a group or one to one.

- **Match Between System and the Real World**

The app does well in terms of matching the system and the real world. The App matches the real world in terms of the registration process, queue process, and chatting process. However the app needs more language options (It can only run in english currently).

- **User Control and Freedom**

This app is a very simple app, it doesn't have that many screens in the first place, that being said, the app still has very good user Control; it has an abort button for matching. and back buttons for the set up process.

- **Consistency and Standards**

The app follows consistency rules very well, as words are short and all dropdowns look the same. The app also follows similar consistency to other social media platforms as well in terms of chatting and layout.

- **Error Prevention**

The app has good error prevention in terms of matching as the user has full control and warning when there is a match. However, the user will not know they have selected a wrong sub-category by accident until they have already matched and started to talk to the other user.

- **Recognition Rather than Recall**

The user won't need to recall anything in this app, because the user will get their stats and match history saved and notifications will appear for group meetings.

- **Flexibility and Efficiency of Use**

The app could be more efficient in terms of easy to use functions for an expert user, like a quick match function, which basically skips the preferences as the user probably uses the same category every time.

- **Aesthetic and Minimalist Design**

The app is sophisticated in this area, because there is not much dialogue to begin with, and there is no irrelevant information. The colours are really nice for aesthetics too.

- **Help Users Recognize, Diagnose, and Recover from Errors**

If the other user is lagging (ms over 5000), there is no notice for the current user to know about it. There should be a connection issue error suggestion diagnostics; for the other to try resetting router etc., and for the current user to either drop the user or to keep waiting.

- **Help and Documentation**

The app is simple enough that no extra help should be needed. A help box could be added to every screen if there are some struggling users. A help box could simply contain frequently asked information like “can you talk to multiple people at once?”.

## **CONSOLIDATION:**

- **Visibility of System Status**
  - Mostly good, a few minor spots to fix. **Rating: 2**
- **Match Between System and the Real World**
  - A few security/privacy concerns. **Rating: 3**
  - Lacking multilingualism. **Rating: 3**
- **User Control and Freedom**
  - Only single category selection. **Rating: 2**
  - Good use of navigation buttons. **Rating: 0**
- **Consistency and Standards**
  - Great consistency and standards. **Rating: 0**
- **Error Prevention**
  - Lacking verification of preferences. **Rating: 2**
- **Recognition Rather than Recall**
  - Only superficial aspects can be improved upon. **Rating: 1**
- **Flexibility and Efficiency of Use**
  - Lacking in shortcuts. **Rating: 2**
- **Aesthetic and Minimalist Design**
  - Potential for increased concision. **Rating: 0**
- **Help Users Recognize, Diagnose, and Recover from Errors**
  - Lacking network error warnings. **Rating: 0**
- **Help and Documentation**
  - Lacking tooltips or demos. **Rating: 2**

## 5. Workload Distribution and Summary

Part	Tejal	Daniel	Khushal	Jason
<b>Part 1 “Requirement Analysis”</b>	1.Wrote app review/all personas/scenarios/conducted and written interviews/affinity diagrams/wrote key requirements	1.Performed proofreading, grammar/spell check, fact checking, and edited app review.	1..Performed Grammar check and edited App review  2.Helped Tejal conducting interviews by taking notes	Collaborated
<b>Part 2 “Initial Design Alternatives”</b>	Collaborated	1.Made all sketches using Balsamic, wrote part 2c, drew and added storyboard.	1.Wrote part 2b ( explaining both prototype designs )and made rough sketches for Daniel	1.Wrote part 2b (explaining both prototype designs)
<b>Part 3 “Prototype Evaluation and Iteration”</b>	1.Did part 3b (wizard of oz, 2 iterations and wrote the changes and new visual elements of every iteration )	Collaborated	1.Wrote part 3a (Choosing which design is better and why)	1.Wrote part 3a (Choosing which design is better and why)
<b>Part 4 “Usability Inspection Evaluation”</b>	1.Wrote Usability Inspection	1.Wrote Usability Inspection #2 and Consolidation.	1.Wrote Usability Inspection	1.Wrote Usability Inspection

## **Appendix 1 (Example Topic Categories, Subcategories, and Sub-subcategories):**

### **Example 1 (Languages):**

#### Languages

##### Germanic

German, Swedish, English, Dutch, Flemish, Scots, Danish, Norwegian, Icelandic, Yiddish

##### Baltic-Slavic

Russian, Bulgarian, Macedonian, Belarusian, Ukrainian, Czech, Slovak, Polish, Serbian, Croatian, Bosnian, Lithuanian, Latvian

##### Hellenic

##### Greek

Ancient Greek

##### Indo-Iranian

Hindi, Urdu, Nepali, Romani, Punjabi, Pashto, Armenian, Persian, Marathi

##### Latino-Faliscan

French, Spanish, Italian, Corsican, Latin, Venetian, Catalan, Romanian

##### Dravidian

Tamil, Malayalam, Kannada, Badaga, Gondi, Telugu

##### Semitic

Hebrew, Arabic, Maltese

##### East Asian

Mandarin

Cantonese

Japanese

Vietnamese

Korean



## **Example 2 (Technical Skills):**

### Technical Skills

#### Computer Science

##### Languages

Java, C, Python, C++, C#, VB.NET, JS, PHP, SQL, Swift, Go, Assembly, R, D,  
Ruby, MATLAB, PL/SQL, Delphi, Bash, Perl, Objective-C, F#, COBOL, Lua,  
Kotlin, Lisp, Fortran, Powershell, Ada, Erlang, Scheme, Racket, Haskell

##### Algorithms and Data Structures

##### Operating Systems

##### AI/Machine Learning

##### Security

##### Computer Architecture

##### Concurrent, Parallel, and Distributed Systems

##### Databases

##### Computation Theory

##### Compilers

##### Discrete Mathematics

#### Mathematics

##### Calculus

##### Linear Algebra

##### Group and Set Theory

##### Numerical Methods

##### Number Theory

##### Analysis

##### Combinatorics

##### Topology

##### Statistics

#### Engineering

##### Electrical

##### Mechanical

##### Civil

##### Chemical

##### Software

### Example 3 (Health):

#### Health

##### Working out

- Scheduling
- gym/equipment
- Aesthetics routines
- strength/power routines
- Cardio
- Exercise Form
- Supplements
- Booty
- Chest
- Rehab

##### Diet

- Macros and Micros
- Diet planning
- Weight Loss
- Food safety/security
- How to cook

##### Illness

- Cancer
- Heart and Stroke
- Infectious/viral diseases
  - Coronavirus, ebola, zika, AIDS.....
- Rare diseases
  - Microcephaly, Morgellons.....
- Common illnesses
  - Alzheimers, Diabetes.....
- Disease prevention

##### Suicide Prevention/Depression

##### Common lifestyle choices

- How to schedule a day

## Appendix 2 (Consent Forms)



### Consent Form

**Title:** COMP3008 Project 1 Interaction Design Process By Project Reports

**Date of ethics clearance:** January 16, 2020

**Ethics Clearance for the Collection of Data Expires:** January 31, 2021.

**CUREB-B clearance #:** 112129

This study aims to assess the usability of a computer user interface for the purpose of improving its design. This project is being completed as part of COMP3008 – Human Computer Interaction, an undergraduate course in Computer Science at Carleton University.

This study involves one session lasting at most 60 minutes. During the session, you will be asked to complete some tasks on a computer system, provide your opinion of the system, and offer feedback about how it can be improved. Data may be collected through observation, questionnaires, interviews, or tools to measure user actions on the interface (e.g., timing information or screen capturing the interaction). You will be provided with an anonymous username for use during the study and none of your personal accounts or data will be accessed.

You have the right to end your participation in the study at any time, for any reason, up until the end of the session. To withdraw, simply tell the researcher; no reason or explanation is necessary. If you withdraw from the study, all information you have provided will be immediately destroyed. Withdrawal is not possible after you have completed the study.

All research data, including notes will be password-protected. When the analysis is completed, any hard copies of data (including any handwritten notes) will be kept in a cabinet in a locked office at Carleton University. Data will only be accessible by the experimenters and the research supervisor. Questionnaire data will be collected using Limesurvey, and will be stored on a password protected server at Carleton.

Since this is part of a class project, data will be kept until the end of the course. All data will be securely destroyed by June 2020. Electronic data will be erased and hard copies will be shredded.

The ethics protocol for this project was reviewed by the Carleton University Research Ethics Board (CUREB-B), which provided clearance to carry out the research. Should you have any ethical concerns with the study, please contact the REB Chair, Carleton University Research Ethics Board-B (by phone: 613-520-2600 ext. 4085 or by email: [ethics@carleton.ca](mailto:ethics@carleton.ca)). For all other questions about the study, please contact the researcher.

**Researchers' contact information:**

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Do you agree to have your computer screen recorded: **Yes** No

I , Komal Khetpal agree to participate in this user study:



Signature of participant

Feb 01,2020

Date



Signature of researcher

Feb 01,2020

Date

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Do you agree to have your computer screen recorded: ☒ Yes ☐ No

I, Akanksha Singhwal agree to participate in this user study:



\_\_\_\_\_  
Signature of participant

Feb 1, 2020

\_\_\_\_\_  
Date



\_\_\_\_\_  
Signature of researcher

Feb 1, 2020

\_\_\_\_\_  
Date

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Do you agree to have your computer screen recorded: **Yes** No

I, Deborah agree to participate in this user study:



Signature of participant

Feb 02 ,2020

Date



Signature of researcher

Feb 02 ,2020

Date

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Do you agree to have your computer screen recorded: **Yes** No

I, Anita agree to participate in this user study:



Signature of participant

Feb 02 ,2020

Date



Signature of researcher

Feb 02 ,2020

Date



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Do you agree to have your computer screen recorded: ☒ Yes ☐ No

I, Coline agree to participate in this user study:



Signature of participant

Feb 02 ,2020

Date



Signature of researcher

Feb 02 ,2020

Date