



1.Introduction:

In today's fast-paced world, it can be difficult to focus on what truly matters amidst the constant influx of information and distractions. For various reasons, such as lack of time, knowledge of where to begin, or simply lack of motivation, many people who like to walk neglect their fitness and fail to prioritize its importance, they suffer from some problems, including: not knowing good places to walk, not knowing the calories required of them, not having friends to walk with them and encouraging them to do so, also not having a specific schedule for walking.

However, we believe that technology can offer a solution to this problem. By simplifying our daily routines and helping us to achieve our fitness goals, we have developed a solution that can overcome these struggles and ultimately lead to a healthier lifestyle. our solution is an application designed to be a personal assistant in your pocket, it provides features that cater to your specific needs and preferences, and we see that it is important to solve this problem because physical fitness is essential for good health, quality of life, productivity, confidence, and community. By providing solutions and tools to help individuals achieve their fitness goals, we can contribute to a healthier, happier, and more productive society.

With our app, you can easily simplify your life. Join us on the journey to make productivity simple and accessible to everyone.

2. Methodology:

We have conducted interviews and questionnaires to collect information and find out the difficulties that people face in walking. This information will help us develop and improve the application, based on the needs and preferences of the target audience. The data collected will be analyzed and used to make informed decisions about the features and functionality of the application, as well as how to market and promote it to potential users.

- We conducted interviews with 8 individuals who have a passion for walking, and we gathered valuable information regarding their walking routines, challenges, and preferences. The interviews covered 10 questions related to their current walking routine, challenges they face, motivation, preferred walking facilities, their opinion on using a phone app to track their walking habits, specific features they would like to see in a walking app, and their preference for receiving feedback and motivation. We selected the participants through personal connections. Overall, the interviews provided valuable insights for developing a walking app that caters to the needs and preferences of individuals with a passion for walking.

- We conducted a questionnaire survey aimed at people who have a passion for walking. The survey consisted of 8 questions related to age, gender, weight, walking routine, progress tracking, and interest in community features in a walking app. We distributed the survey through social media platforms to reach a diverse sample of individuals who are interested in walking. We gathered information that will be useful in developing our walking app that addresses the needs and preferences of users.

3.Results:

3.1 Interview's results:

After doing a series of interviews with 8 individuals who have different challenges and motivations when it comes to walking, we gain a deeper understanding of their needs and preferences. By asking a range of questions related to their walking routines, we aimed to understand the challenges they face, the motivators that keep them going, and the features that could help them maintain a consistent walking routine.

We noticed that the most common challenges faced by the interviewers during their walking routine were lack of motivation and the difficulty of finding time to walk. Many interviewees find setting achievable goals, walking with friends or in a community is also seen as motivating and encouraging. They also mentioned their difficulty in finding suitable places to walk. Their desire for engaging an interactive feature such as colorful maps of nearby walking areas and community events, audio content such as music or podcasts was also commonly mentioned by interviewees.

The interviewers mentioned that they usually walk more when they are with friends, and they struggle finding someone to walk with. They also like the idea of receiving personalized notifications with

motivational quotes, helping track their progress and reminding them to start walking, as it will be easier for them wearing it than opening the app.

Overall, interviewees express a strong interest in maintaining a healthy lifestyle through regular walking habits, and they suggest that personalized support and guidance would be helpful in achieving their goals.

3.2 Questionnaire results:

Based on the 25 questionnaire results that revealed, around 56% of the results comprised females (figure#2), and an equal percentage (56%) fell within the age range of 19 to 29 years (figure#1), while 32% of them weighed between 51-59kg. (figure#3)

We noticed that the majority (72%) reported walking 3 to 4 days per week (figure#5), as all of them are highly motivated to set a daily walking schedule (figure#4) and this presents an opportunity to encourage the respondent to gradually increase their frequency of walking. Moreover, half of our sample indicated that tracking their progress and improvement over time was important, with a rate of 60-80%. (figure#7) Furthermore, 72% of them face challenges staying active and walking when they are alone (figure#6), and this suggests that social support and accountability could be important for their success.

1.How old are you?

25 responses

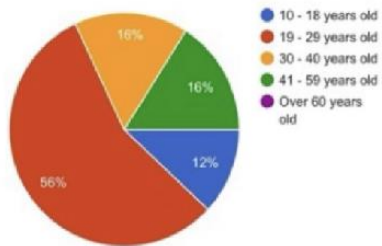


Figure 1

2.What is your gender?

25 responses

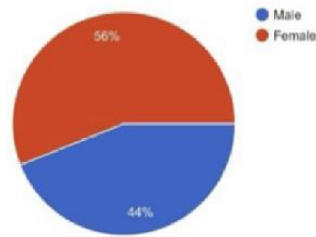


Figure 2

3.Your weight?

25 responses

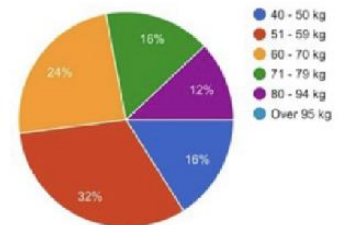


Figure 3

4. Do you want to set a daily walking schedule?

25 responses

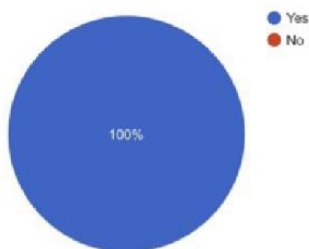


Figure 4

5. How often do you engage in walking in a week?

25 responses

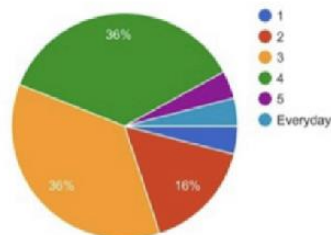


Figure 5

6. Usually, do you prefer walking alone or with people?

25 responses

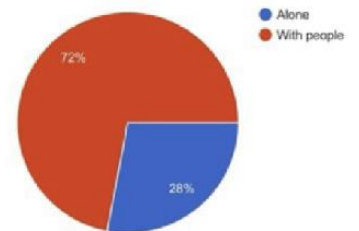


Figure 6

7. How important is it for you to track your progress and see improvement over time?

25 responses

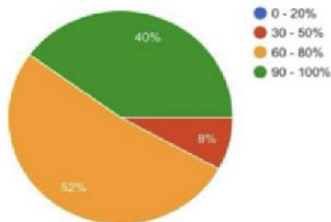


Figure 7

8. Would you be interested in connecting with other users through a community feature in the app?

25 responses

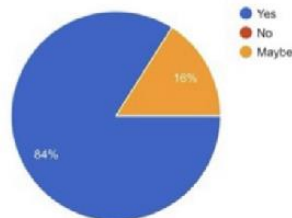



Figure 8

4. Personas:

- 1- Based on the interview and the questionnaires, we define the first persona. Faisal is a 35-year-old lawyer who has a walking routine as a part of his overall fitness goals. He usually walks for about 30 minutes during his lunch break, but on weekends, he enjoys taking longer walks of 1-2 hours in nature or exploring new areas of his city. However, he faces two challenges that are preventing him from being consistent with his walking routine. Firstly, Faisal does not like walking alone, as he finds it boring. He wants to have someone to walk with him, to make the experience more enjoyable and social. Secondly, Faisal struggles to find suitable places to walk, he is always not sure where the best walking spots are located. We define “Faisal” based on [interview 3 answer 2,7] [interview 4 answer 2 ,4] [interview 7 answer 2,3] [interview 8 answer 4] [interview 6 answer 7]

Faisal Ahmad



Hardworking

Brave

Friendly

Team-oriented

Goals and needs

- To find a walking partner to make the experience more enjoyable and motivating.
- To find suitable places to walk that are safe and offer scenic routes.
- A map feature in the app that can suggest safe and scenic walking routes.
- A community feature in the app to connect with other walkers and potentially find a walking partner.

Frustrations

- Feeling bored and unmotivated when walking alone
- Struggling to find suitable places to walk that are safe and interesting.
- Feeling like his walking routine has become stagnant or repetitive.


Bio

Based on the information provided, the 35-year-old lawyer appears to be someone who is dedicated to improving his physical health through regular walking. He values social interaction and would benefit from having a walking partner to stay motivated. However, he struggles with finding suitable places to walk and setting a consistent schedule that fits his busy lifestyle. He is open to using technology to help him overcome these challenges and improve his walking routine.

Motivation

Incentive	80%
Fear	20%
Growth	10%
Power	70%
Social	90%

Brands & Influencers



Preferred Channels

Traditional Ads	10%
Online & Social Media	80%
Referral	10%
Guerilla Efforts & PR	10%

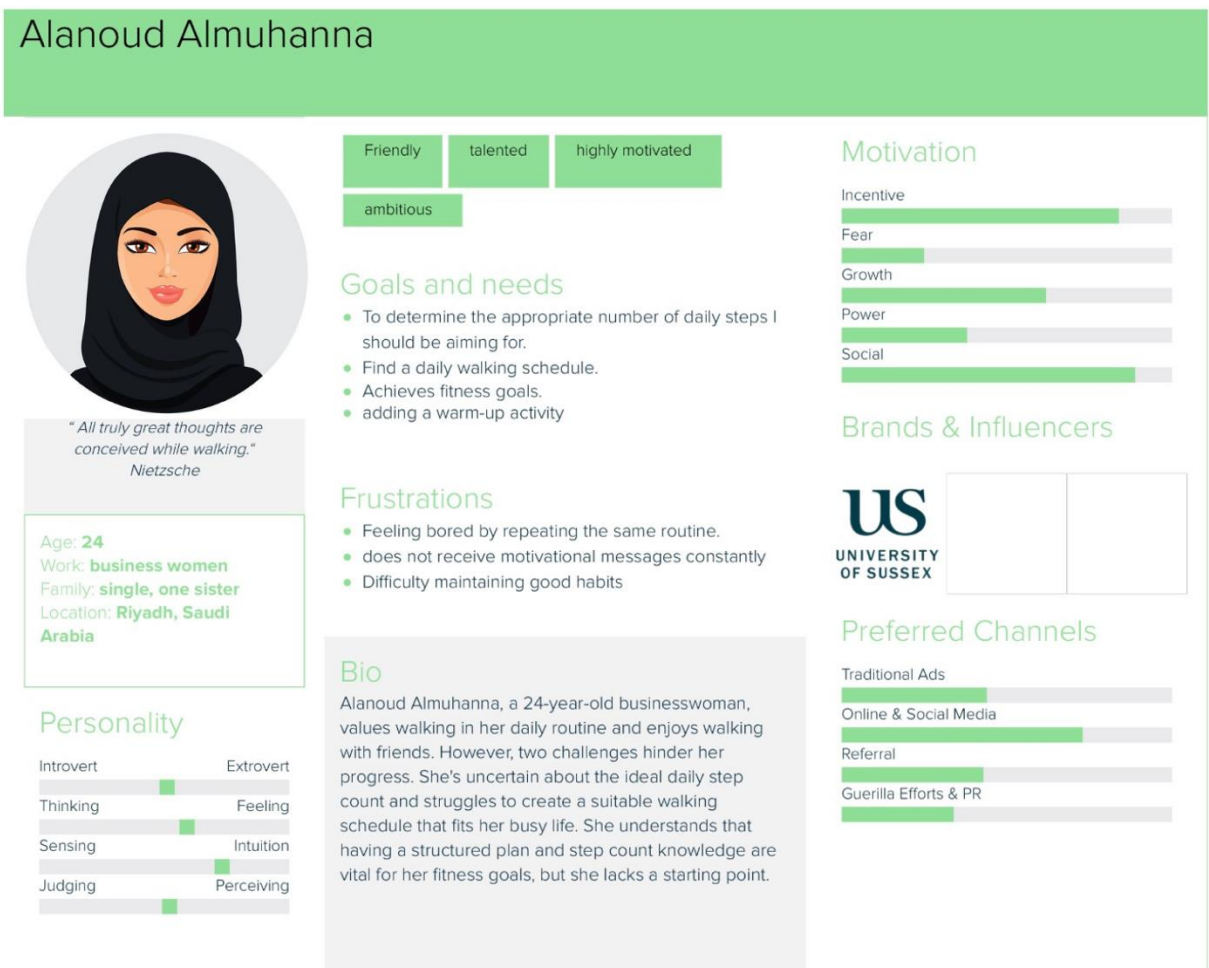
"I never give up on my goals, even if it takes some extra steps to get there."

Age: **35**
Work: **lawyer**
Family: **single, two sisters, one brother.**
Location: **Riyadh, Saudi Arabia**
Character: **Archetype**

Personality

Introvert	Extrovert
Thinking	Feeling
Sensing	Intuition
Judging	Perceiving

- 2- Based on the interview and the questionnaires, we define Alanoud Almuhanha, 24-year-old businesswomen who has the walking habit on her daily routine. She usually walks 5-6 days per week and sometime twice a day, scoring 10,000 or more steps, also she walks a lot when she goes out with her friends, but she faces two challenges that are holding her back. Firstly, she is not sure about the suitable number of steps she should be taking each day. Secondly, Alanoud struggles to find a daily walking schedule that works for her. Alanoud knows that having a structured plan and knowing how many steps to take will help her achieve her fitness goals, but she doesn't know where to start. We define Alanoud based on [interview 1 answer 2,7] [interview 2 answer 7] [interview 5 answer 2].



5. Solution:

By analyzing the information gathered from interviews and questionnaires, we were able to gain a clear understanding of the user's needs. Our findings showed that many individuals encountered various challenges, such as the inability to locate an appropriate walking location, difficulty in finding a walking partner, and struggling to establish a walking routine. To address these issues, we developed a smart walking application called "StepUp". The application offers a variety of features that encourages daily walking by including a community feature that allows them to connect with other users who have similar walking goals and interests, a map with nearby walking location suggestions to locate suitable in their area and read other people's reviews at these locations, also the app offers a feature to help people find the suitable steps for them by providing personalized recommendations based on their fitness level and goals. The app would also include a daily schedule planner to help them establish a routine that works for them and to track their steps on a daily, weekly, and monthly basis. The app will also include fitness tasks for each user based on their fitness level, age, gender, and health condition. Overall, our fitness app provides a comprehensive solution to the common walking problems that people face, helping them to establish healthy habits and achieve their fitness goals.

Appendix A: **Interview:**

Note: All interviews were conducted with people who like to walk often (They are over 18 years old).

Interview questions:

Q1- What is your current walking routine like? Do you walk often, and for how long do you usually walk?

Q2- What challenges do you face when you walk, and how do they impact your daily life routine?

Q3- What inspired you to start a walk routine?

Q4- How do you stay motivated to continue your walk routine, especially on days when you may not feel like walking?

Q5- In your opinion what facilities could enhance your walking experience?

Q6- How do you feel about controlling walking habits by your phone?

Q7- What specific features would you like to see in a walking app that could help you overcome your walking problems?

Q8- How would you prefer to receive feedback and motivation through the app? For example, through notifications, reminders, or personalized messages?

Q9- Would you be interested in connecting with other users through a community feature in the app, and if so, how do you envision this community helping you achieve your goals?

Q10- Finally, do you have any other suggestions or feedback that you would like to share that could help us improve the app?

Interviews' Transcriptions:

Interview #1:

Interviewee: Alanoud Almuhanha, 24-year-old women.

Interviewer: Sarah

A1: I usually walk every day, often twice a day, scoring 10,000 or more steps.

A2: I don't know the steps needed to walk per day. I need a table showing me the number of my steps and their progress.

A3: Is the Fact: People who walk regularly have a much lower risk of heart disease, type 2 diabetes, some cancers, arthritis, depression, anxiety and insomnia, and premature death from all causes.

A4: Find a training partner and seek a new route to explore new areas.

A5: Listening to my favorite podcast or music while walking.

A6: By counting the steps and burning calories on the walking apps.

A7: Set a schedule for a daily walking step.

A8: Receiving all the above is very helpful to boost my energy.

A9: Yes, sharing interest is very helpful to achieve the goal as a group.

A10: I would suggest adding a warm-up activity to the app.

Interview #2:

Interviewee: Manar Algoblan, a 20-year-old woman.

Interviewer: Sarah

A1: During the holy month of Ramadan, I walk every day before the sunset for half an hour.

A2: I only struggle when I start walking again after I have stopped the habit for a while.

A3: I started my walking routine during a very challenging and stressful period of my life and walking helped me reduce the stress.

A4: The feeling I feel after walking is what keeps me always motivated and not wanting to stop the habit.

A5: Green parks and beautiful streets and architecture are always good places for walking.

A6: It keeps me motivated to walk more and challenge myself.

A7: Receiving a motivation message and a diet meal plan daily.

A8: Personalized messages are way more motivating than notifications and reminders.

A9: I feel like if there are videos uploaded and a chat bot this can be really helpful.

A10: Not really.

Interview #3:

Interviewee: Maha Alrubaish, 26-year-old women.

Interviewer: Yara Bahmaid.

A1: Yes, I try to incorporate walking into my routine as much as possible. I walk for about 30 minutes 2-3 days a week, and I also enjoy longer walks on weekends at the mall or in my neighborhood.

A2: One of the challenges I face when walking is continuing to walk on my own. I am a social person, and I would like to have friends who like to walk so that we can motivate each other.

A3: Actually, my sister inspired me. She is a healthy person who's always working out and I saw how she became a strong person and how her health became better, so after I saw those results, I decided to start my daily walking routine.

A4: There are several factors that motivate me to walk regularly. One of them is that I enjoy the sense of accomplishment and satisfaction I feel after completing a walk. Walking also helps me to de-stress and clear my mind.

A5: in my opinion, the well-maintained walking trails, with clear markers, and safe walking paths can enhance the walking experience and make it more enjoyable.

A6: For me, using a fitness app to track and control my walking habits through a mobile phone can be a useful tool that would help me stay motivated and accountable to my fitness goals.

A7: I would like to see features such as a personalized walking plan based on my fitness level and goals, real-time tracking of my walking statistics, route suggestions and maps for safe and interesting walking routes, a social community to connect with other walkers, and motivational reminders and challenges to keep me motivated and engaged.

A8: I prefer to receive feedback and motivation through personalized notifications or reminders, as I see that would help to keep me motivated and engaged with the app.

A9: Yes of course, I already said that one of challenges that I faced is that I always walk alone, so for me this is a good feature that can make me connect with people who share the same interest.

A10: I would suggest that the app offers a variety of walking routes and locations. In addition, the review feature, and I mean that there is a review under each walking area so that the person knows the reviews of others about this area before going to it.

Interview #4:

Interviewee: Abdullah Alsultan, a 30-year-old man.

Interviewer: Yara Bahmaid.

A1: Due to my very busy schedule at work, I don't walk on weekdays, but on weekends I usually try to go for walks, either alone or with friends and family. Depending on my schedule and energy level, these rides can range from a quick 30-minute walk around the neighborhood.

A2: Walking in crowded or noisy areas can sometimes be stressful and impact my ability to relax and enjoy the walk, and in terms of how these challenges impact my daily life routine, they can sometimes make it more difficult to stay motivated to walk regularly.

A3: I was inspired to start a walking routine for a variety of reasons. One of the main factors was my desire to improve my overall physical health and fitness level.

A4: Walking with a friend or family member can be a great way to stay motivated and accountable.

A5: Having a walking schedule that contains some details about my daily walk such as the time I have to spend walking each day, as well as walking with a friend. It can enhance my walking experience by making it more comfortable and enjoyable.

A6: for me, I carry my phone with me everywhere I go, so it makes sense to use this technology to improve my health and fitness.

A7: for me I would like to have a device that connect with the app, such as bracelet to provide a more comprehensive view of my overall health and fitness. For example, it could track my heart rate, water balance, also it could send some reminders that keep me healthy.

A8: I would like to receive notifications on my phone that remind me to walk and provide feedback on my progress. These notifications could be daily, weekly, or customized based on my walking goals.

A9: I think that a community feature in the app could be a valuable tool in helping me achieve my walking goals. By connecting with other users, I could find accountability, support, friendly competition, and even walking partners.

A10: It would be great if the app allowed users to set customizable walking goals based on their individual fitness levels, schedules, and preferences.

Interview #5:

Interviewee: Haifa, 21 years old women.

Interviewer: Jaida

A1: I don't walk often; I usually walk a lot if I go out with my friends.

A2: One of the challenges I face is that I don't know how many steps I should walk every day, every week. So basically, I don't know what goal is suitable for me.

A3: beautiful places and nature and good weather.

A4: to increase my daily steps and my physical activity and to improve my mood.

A5: places for pedestrians to walk that are shadowed and cool and accessible to metro and bus stations. Also, the experience of minimarts that provide refreshing beverages and water.

A6: I think it's a very good idea to track my walking habits and to set notifications with unusual ideas such as motivation, quotes, or the effect of practicing this habit on my health today.

A7: A map that shows nearest places that are suitable for a walk, and the upcoming community events of walking.

A8: personalized messages are effective because they are personalized to you. You can use your name for your goals.

A9: Yes, I think the community will be a motivational space as everyone will be recording their progress and sharing their walking routine recommended some advice and good places to visit. Also, it will bring people who have a common interest together.

A10: When sharing my progress, it's good to be able to add the song or the podcast that I was listening to while walking, also, the dark mood is an important feature to add since many people find it comfortable.

Interview #6:

Interviewee: Abdulaziz, 40 years old man

Interviewer: Jaida

A1: I have a regular walking pattern. I usually walk every other day, about 3 to 4 days a week, for 30 minutes per day. This will give me around 120 minutes (about 2 hours) of walking per week. However, my ambitious goal is to have no less than 210 minutes (about 3 and a half hours) of walking weekly. It has been recommended by several medical agencies as a significant lifestyle modification that would promote health and wellness in people, and I hope I can reach this goal.

A2: One of the most important challenges of walking is the inadequate setting for walking. So, I do walk in our village in several streets with no specified walking area. There could be cars walking just beside me at some intersections that I need to take care of, and that significantly affects the relaxed atmosphere that anybody who is walking would be looking for.

A3: By the significant amount of data and research papers that link walking with healthy longevity, given that we are all going through an aging process. Certain lifestyle patterns would significantly alter this progression. So, instead of deteriorating in body functions and mental functions, we could maintain our body health and our mental health by adopting several positive lifestyle interventions. One of these important lifestyle interventions is walking and regular walking. So, given that this habit is shown to reduce the impact of aging, shown to improve healthy longevity, shown to improve aging while being a

functioning person in society, I think this was a great point that inspired me to adopt a regular walking habit. I would certainly encourage anybody in society to do that because, in the end, we aim to be a healthy society and to be as functional as we can despite progressing in our age.

A4: One of the things that makes me motivated to continue my regular walking routine is my cell phone. I monitor my walking distance and steps numbers every day, every week, compared to the last month, to make sure that I am maintaining a steady amount of walking distance and steps every month. The second thing is that I do see my neighbors walking as well in the neighborhood, and this will certainly motivate me to keep up with this important habit and look forward sometime even to chat with them quickly while we are walking in the same area.

A5: It's very important to have facilities equipped with secure areas for walking. So, I am looking for facilities which contain a dedicated walking area with a lot of plants and a healthy atmosphere with a temperature of a decent level, which will help my body to keep walking as long as I can. I am also looking for an area with some socializing, seeing people walking around with me. In Riyadh City, this is going to come up in the plans that we have for 2030. We have a very nice plan for the King Salman Garden, which is near our house. This is something that is very encouraging. This area will have a dedicated walking space for everybody, and we also have other areas in Riyadh such as the cube (Mukaab) which is very encouraging. So, all these facilities with a secure atmosphere, socializing atmosphere, and natural associates will certainly be good facilities for me to keep up with walking.

A6: A cell phone is a great discovery, and the facilities and apps available on our cell phones, especially those that track walking habits, are very important. So, I used to look at my cell phone every day to monitor my walking distance and steps and to keep up with my average weekly walking distance. When I feel that I'm not up to the target, I need to compensate for that the next day or the next few days by walking more or doing more exercise. So, the cell phone is a very important support for my healthy lifestyle program.

A7: I want the walking app to give me the best time for walking. I want it to give me the best possible time in the day to walk, given the less traffic in the surrounding area of my house, better weather, and good slight decent winds, which will help in keeping my body temperature and comfortable zone. I also want the app to give me reminders if my walking habits have been declining for any reason. I want it to give me alternatives to the walking area or show me some suggested places to walk in, like shopping

malls or parks. It should also suggest alternative exercises that are good for me, such as cycling or playing football. So, alternatives are also something that I am looking for to get as a suggestion from the app.

A8: I prefer personalized messages that give me suggestions on what I should do, when I should do it, and some alternatives. If I could also interact with these messages by saying that I didn't have time to reply or act based on the recommendation of the message, the app could resend me the message with different alternatives in two or three hours. So, flexibility in messages, being able to interact, and to tell the app to give me back some suggestions in a few hours, with different encouragements, is something that I am looking for to help me achieve my goals.

A9: I am not interested in being connected with other people in the community for walking. I think the most important and encouraging point here is to connect with the people that I see personally in my walking experience in our neighborhoods and the walking space that we have in Riyadh. I think socializing by direct communication in a nice, relaxing atmosphere is better than just is better than just hooking up with people during or through an app. So, for me, this natural socializing experience is the most important thing that would help me keep this good habit and to be encouraged by the people surrounding me in the real world.

A10: I suggest gathering information about other lifestyle patterns in any person, so you need to get their full weight and height, calculate their body mass index, and see if there are any important chronic diseases that could affect a person's ability to walk, like ischemic heart disease or osteoarthritis in the knee. Also, you need to make sure that you collect some data about their nutritional habits, sleeping pattern, stress levels, or situation during the day. So, I'm suggesting a more comprehensive approach that links walking with other important lifestyle factors. This is important because, in the end, you will see if not only walking regularly promotes the health benefits but also their diet and stress levels. Having less stress will affect them medically, and so forth. It's very important to give a comprehensive picture of the person's situation. On the other hand, if there are different difficulties or unhealthy lifestyle factors, including smoking, the app could also guide and advise that person to try to get rid of these lifestyle factors or compensate for that by having more exercise. It would be of interest to me if the app could analyze walking as a single element from different connected elements together, which will determine the person's overall lifestyle and health at the end. Thank you.

Interview #7:

Interviewee: Faisal, a 35-year-old man

Interviewer: Reema

A1: I try to incorporate walking into my daily routine as much as possible. On weekdays, I usually walk for about 30 minutes during my lunch break. On weekends, I enjoy taking longer walks of 1-2 hours in nature or exploring new areas of my city. Overall, I aim to walk at least 10,000 steps per day, which is the recommended daily goal for maintaining good health.

A2: I often struggle with deciding where to walk, especially when I am in a new location and my walking routine becomes repetitive. This can impact my daily life by making it harder for me to stay motivated and incorporate physical activity into my routine.

A3: I would be inspired to start a walking routine if a group of friends invited me to join them for regular walks. Because I see walking alone is a bit boring, we are looking for ways to stay active, motivated and spend more time together, and walking seemed like the perfect solution.

A4: I've found a few strategies that help keep me on track. One of the things that helps is setting achievable goals and tracking my progress. For example, I might set a goal to walk for 30 minutes a day, and then celebrate when I reach my goal also, I remind myself and my friends of the walking benefits.

A5: for me setting achievable goals for yourself and tracking your progress over time will enhance my walking experience As I always tell myself that I never give up on my goals, even if it takes some extra steps to get there.

A6: In my opinion, using a fitness app in my phone can be a helpful tool in maintaining a healthy walking routine and connecting with other walkers or fitness enthusiasts, I can stay inspired to continue my walking routine.

A7: A fitness app can provide me with valuable information about my progress, such as the number of steps taken, distance covered, and calories burned. This information can help me set realistic goals and track my progress towards achieving them.

A8: I find notifications and reminders more helpful, as they help to stay on track with my fitness goals.

A9: sure, I feel bored walking alone and being part of a community can provide motivation, which can help me feel more likely to stick with them to my goal and walk more.

A10: I think it will be helpful to use a map that shows walking routes and suggest safe walking routes locations. Also, a community feature in the app to connect with other walkers.

Interview #8:

Interviewee: lama, 24-year-old women

Interviewer: Reema

A1: To be honest, I don't walk as much as I should. I have a sedentary job that requires me to sit at a desk for most of the day, and I don't always make time for exercise.

A2: I face few challenges when it comes to walking, particularly because of my busy work schedule. Sometimes, I find it difficult to find time to walk during the day, especially if I have a lot of meetings or deadlines to meet. which can make it challenging to get up and move around

A3: I was inspired to start a walking routine after seeing the positive impact it had on other people in my life who had started walking regularly and had experienced significant improvements in their health and well-being. They talked about how walking helped them feel more energized, less stressed, and more connected to their surroundings.

A4: having a walking buddy or group. Knowing that someone else is counting on me to show up can be a great motivator, and it's also more enjoyable to walk with someone else. I also like to mix things up and try new routes or listen to music or podcasts to keep things interesting.

A5: Progress tracking, and calorie tracking, you can get valuable insights into your daily activity levels and use that

A6: I think it will be a helpful idea so I can stay inspired to continue my walking routine.

A7: using a fitness app is a great way to monitor your physical activity and stay on top of your fitness goals.

A8: Both, I think it's important for the app to offer a variety of options for feedback and motivation, so that users can choose what works best for them.

A9: Yes, I found that walking with friends is really motivating, and we encourage each other to push ourselves a little farther each time.

A10: using colorful tools in the app also setting customized walking goals.

Appendix B: Questionnaires:

Questionnaires questions:

Q1: How old are you?

10-18 years old

19-29 years old

30-40 years old

41-59 years old

Over 60 years old

Other: _____

Q2: What is your gender?

Male

Female

Q3: Your weight?

40-50 kg

51-59 kg

60-70 kg

71-79 kg

80-94 kg

Over 95 kg

Q4: Do you want to set a daily walking schedule?

Yes

No

Q5: How often do you engage in walking?

1

2

3

4

5

Everyday

Q6: What challenges do you face when it comes to staying active and healthy?

Alone

With people

Q7: How important is it for you to track your progress and see improvement over time?

0-20%

30-50%

60-80%

90-100%

Q8: Would you be interested in connecting with other users through a community feature in the app?

Yes

No

Maybe

Questionnaires responses:

<https://docs.google.com/spreadsheets/d/18tE2iQ4h6TvSikHBVlIOgKizb5AZy1C8OBVmUTcPt6I/edit?usp=sharing>

6.User Stories

Table 1.1: User Story #1 – Set schedule.

<u>Summary</u>	<i>As a user, I want to set a schedule and know my steps count, So that I can achieve the walking habit.</i>
<u>Details</u>	<ol style="list-style-type: none">1. 1- From the home page, the user clicks hamBurger button.2.3. 2- menu page will appear to the user, clicks “features “option and then clicks “schedule “option.4.5. 3- From the schedule page, the system promotes the user to specify desired days is a Drop-Down button and daily tasks is a text box, and at the top of the page The system will suggest to the user the number of steps Based on the user's pre-registered information.6.7. 4- When the user fills the required fields, user clicks “submit”.8.9. 5- The system will appear multiple schedules based in the previous data. So, you can choose the most suitable schedule for you through check button.10.11. 6- Clicks “Done” if you choose one of them.12.13. 7- A confirmation message will appear to the user when the schedule is saved successfully.14.
<u>Priority</u>	High

Table 1.2: User Story #2 — choose task.

<u>Summary</u>	As a user, I want to accomplish my daily tasks so that I can get the benefit of walking.
<u>Details</u>	<ol style="list-style-type: none"> 1. From the home page, the user clicks hamBurger button. 2. Menu page will appear to the user, click “features” option. 3. Upon clicking “feature” page will appear, click “Daily task” option. 4. “Daily task” page will show up, select a task from the shown buttons “walk”, “jog”, or “run”. 5. If “walk” selected then a 30 minutes timer with a “start” button will appear, click the “start” button to start the timer. 6. If ”jog” selected then a 15 minutes timer with a “start” button will appear, click the “start” button to start the timer. 7. If ”run” selected then a 5 minutes timer with a “start” button will appear, click the “start” button to start the timer.
<u>Priority</u>	Medium

Table 1.3: User Story #3 — choose a friend.

<u>Summary</u>	As a user, I want to stay motivated and connect with like-minded individuals, so that I can stay motivated and engaged in my fitness journey.
<u>Details</u>	<ol style="list-style-type: none"> 1. From the home page, the user clicks hamBurger button. 2. The menu page will appear to the user, click “features” option. 3. From the features option, select the "Community" button. 4. Upon clicking the "Community" button, you will be presented with two options to choose from: "Bluetooth Connection" or "Find Users Near Me". 5. If you choose the "Bluetooth Connection" option, make sure that your mobile phone Bluetooth is on. Then the app will automatically connect you with the nearest users with similar fitness goals and preferences. 6. If you choose the "Find Users Near Me" option, the app will search for other users who are nearby and have similar fitness goals to you. A list of users will appear, and you can choose which user you want to connect with.

	7. Once you have selected a user to connect with, you can start chatting with them, share your progress and goals, and motivate each other to reach your fitness objectives.
Priority	High

Table 1.4: User Story #4 — find places.

Summary	As a user, I want to find suitable places for walking so that I can enjoy walking and walk more
Details	<ol style="list-style-type: none"> 1. From the home page user clicks on hamburger button. 2. A menu page will appear, user clicks on “features” icon. 3. From the features menu click on the "map" icon. 4. A map will appear with the current location, nearby walking places and a search bar on the top. 5. Click on the search bar and a keyboard will automatically appear to write a specific name. 6. While writing the system will assist the user with places that have the same names, so it helps the user recognize the spelling. 7. the user clicks on the” return “button in the keyboard. 8. All the results will then appear on the map as well as the” more info” icon. 9. User clicks on “more info” and a page with all the places information and reviews will appear (to see more results user can scroll down). 10. If the user clicks on the direction icon, a map will appear showing the directions, estimated time to arrive by walking and distance (km and mi). 11. While the user is walking in the right direction numbers will start decreasing (user can choose by car or walking) . 12. When the user has arrived, a vocal and visual notification will appear even if the User is out of the app telling the user that he arrived. 13. If user clicks on “add review “a rating page will appear with a comments box, a photo icon and rating stars. 14. User clicks on any star to rate then the submit button will turn to blue so user can click it (photos and comment are optional for the submit).

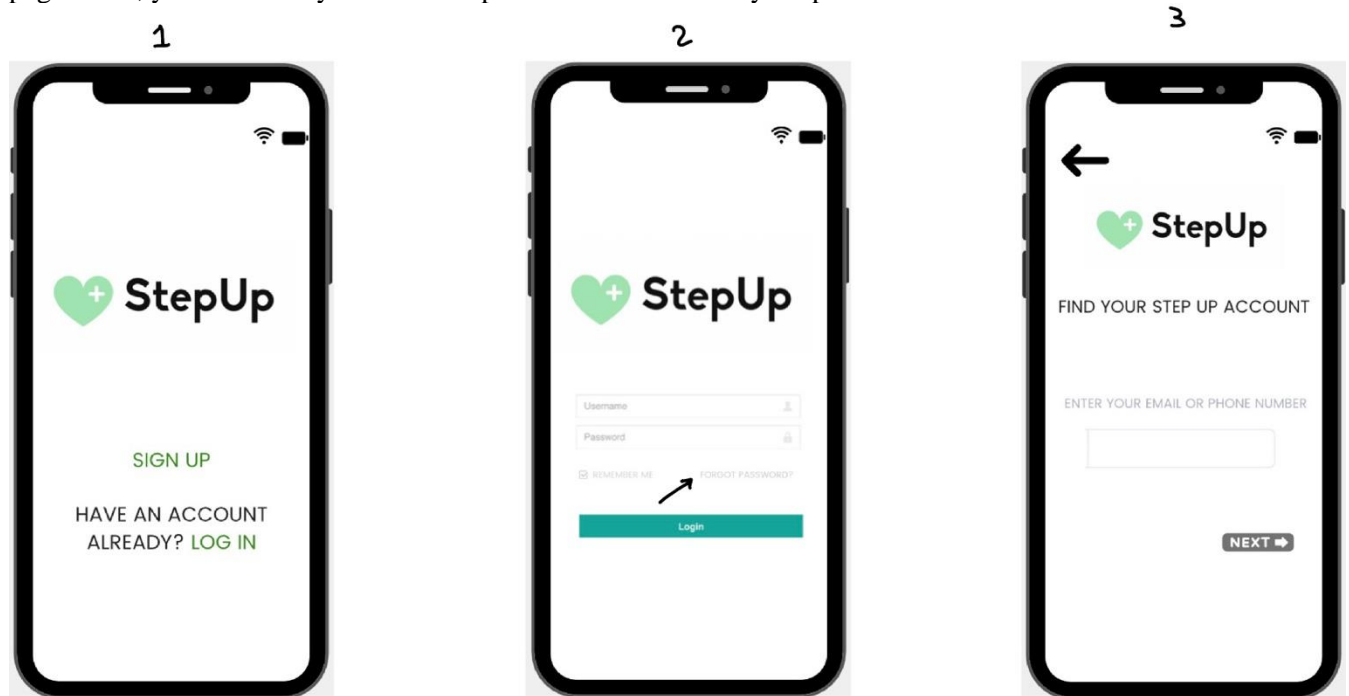
	15. after clicking submit a thank you message will appear.
Priority	High

7. Sketches

Figure #1: This page is dedicated to accessing your account. If you don't have an account, click the "SIGN UP" button. If you already have an account, click the "LOG IN" button.

Figure #2: This page will appear when you click the "LOG IN" button. Here, you can enter your username and password. In case you forget your password, you can click on "Forgot password".

Figure #3: This page will only appear if you clicked on the "Forgot password" button on the previous page. Here, you can enter your email or phone number to reset your password.



In figure #2 If user clicks (forget password button) figure #3 will appear and the flow will continue until figure #6, else if user clicks sign up from figure #1, figure #7 will appear.*

Figure #4: This page displays an input field where you enter the code that has been sent to your previously entered email. It includes a 2-minute timer, a "NEXT" button, and a "RESEND" button that becomes active once the timer finishes.

Figure #5: On this page, you can enter your new password and observe a password strength bar provided.

Figure #6: This page confirms the password reset and includes a "LOG IN" button, allowing you to continue accessing your account.

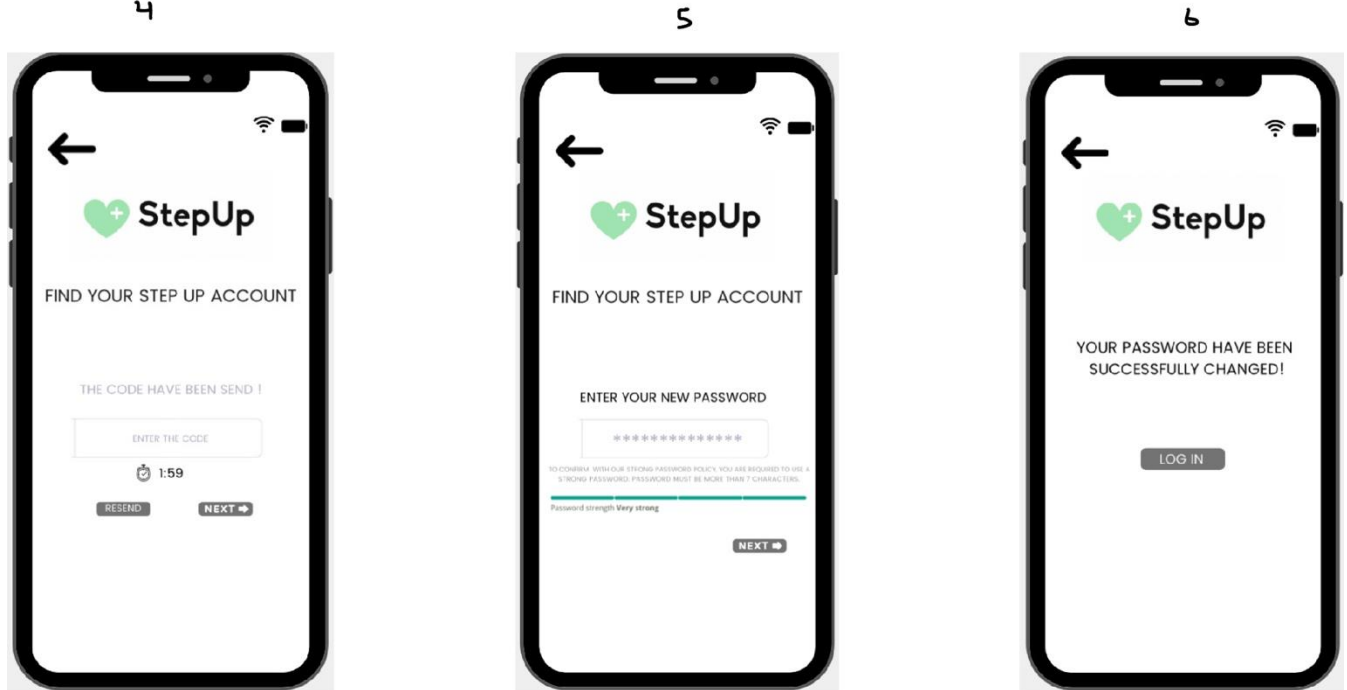
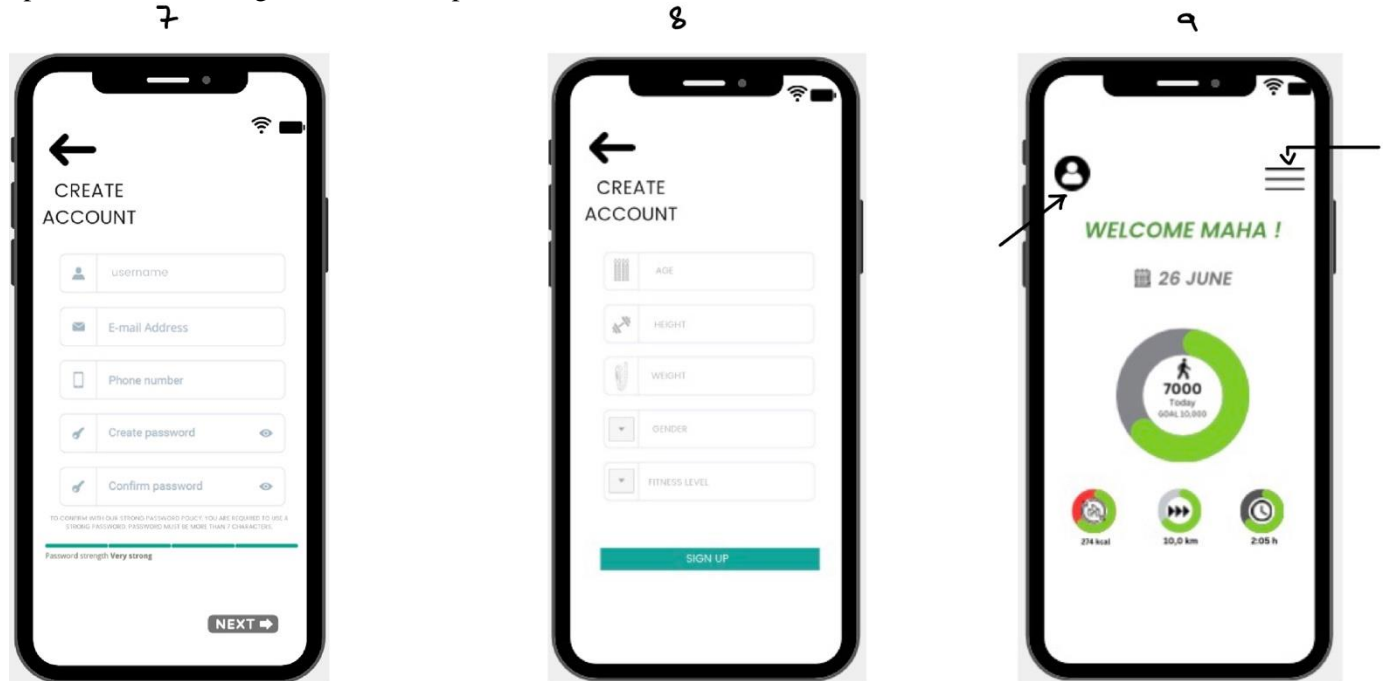


Figure #7: This page will appear if you clicked the "SIGN UP" button in Figure #1. Here, you can enter your new account information, including your username, email address, phone number, password (with a password confirmation field), and observe a password strength bar.

Figure #8: This page allows you to enter your personal information such as age, height, weight, gender, and fitness level.

Figure #9: This is the home page where you can view the number of steps you have taken during the day, calories burned, distance walked in kilometers, and time spent during your walk. Additionally, there are

options for a hamburger button and a profile button.

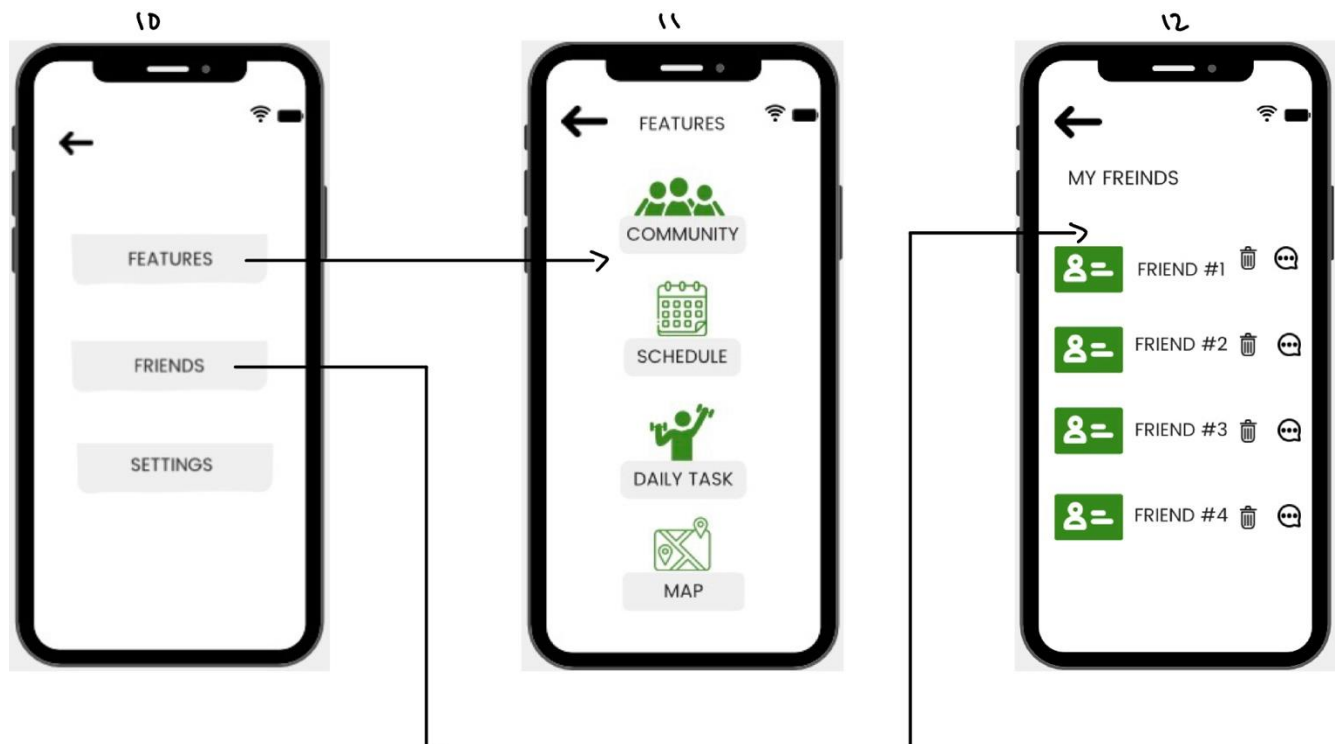


In figure #9, if user clicks hamburger button figure #10 will appear, else if user clicks profile button, figure #17 will appear.

Figure #10: This page will appear only if you clicked the hamburger button on the previous page. Three buttons will be displayed: "FEATURES," "FRIENDS," and "SETTINGS." Additionally, there will be a backward button that takes you back to the previous page.

Figure #11: This page will appear only if you clicked the "FEATURES" button on the previous page. It lists the app features in four buttons: "COMMUNITY," "SCHEDULE," "DAILY TASKS," and "MAP." There is also a backward button that takes you back to the previous page.

Figure #12: This page will appear only if you clicked the "FRIENDS" button in Figure #10. It lists the friends you follow, and each friend has a 'trash can' icon button to delete the friend and a 'chat bubble' icon button for chatting. There is also a backward button that takes you back to the previous page.



In figure #10, if user clicks 'features' figure #11 will appear, else if user clicks 'friends' figure #12 will appear, else if user clicks 'settings' figure #14 will appear and continue until figure #16

In figure #12, if user clicks delete button the friend will be deleted immediately, else if user clicks chat button figure #13 will appear.

Figure #13: This page will appear only if you clicked the 'chat bubble' icon button in Figure #12. Here, you can engage in a chat conversation with your friend. Additionally, there is a backward button that takes you back to the previous page.

Figure #14: This page will appear only if you clicked the "SETTINGS" button in Figure #10. It includes two buttons: "LANGUAGE" and "PERSONAL INFO". There is also an option for Dark mode and a switch to enable or disable Bluetooth. Additionally, there is a backward button that takes you back to the previous page.

Figure #15: This page will appear only if you clicked the "LANGUAGE" button in Figure #14. Here, you can change the app language by selecting the desired language from a drop-down menu. It also includes a "SUBMIT" button to save the language change and navigate to the home page. Additionally, there is a backward button that takes you back to the previous page.

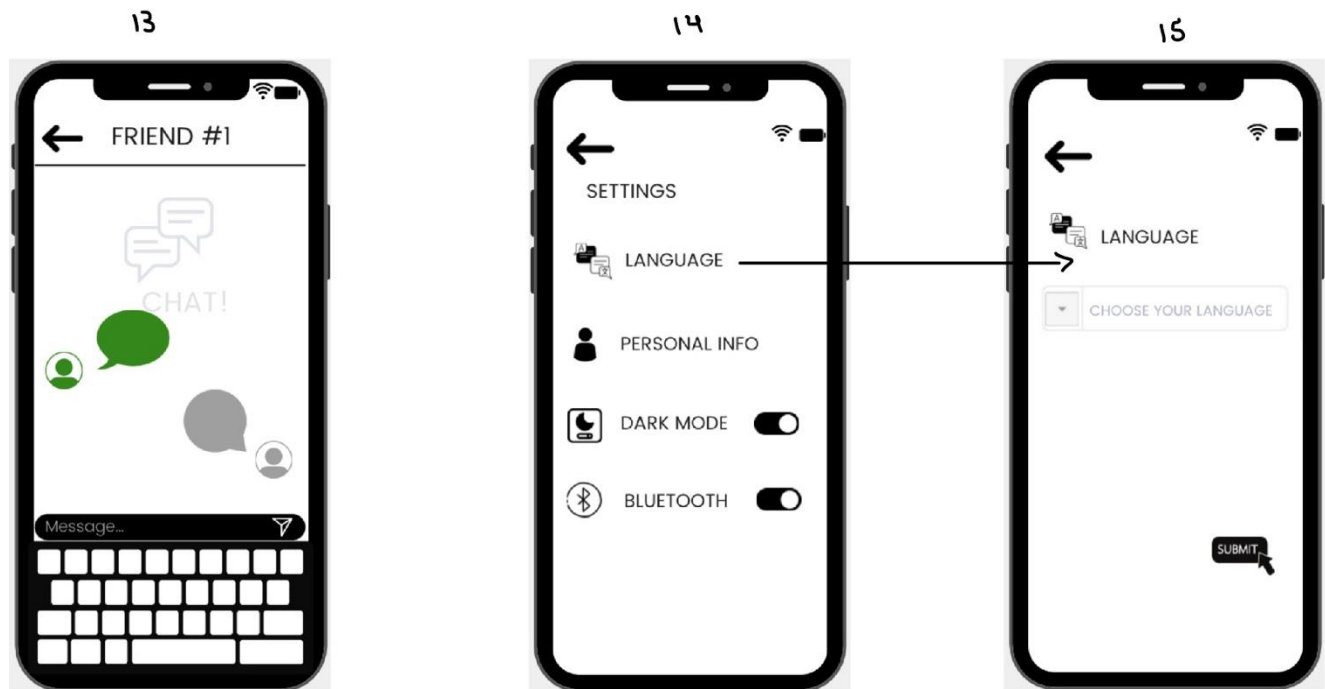


Figure #16: This page will appear only if you clicked the "PERSONAL INFO" button in Figure #14. Here, you can update your username, email, mobile phone, and password. A password strength bar is provided to help you create a strong password. Additionally, you have the option to choose whether to display or hide your age and weight on your profile. There is also a backward button that takes you back to the previous page.

Figure #17: This page will appear only if you clicked the profile button in Figure #9. Here, you can view your reviews and the total number of reviews you have done. You can also see the number of friends you have, your biography, and an "EDIT PROFILE" button. Additionally, there is a backward button that takes you back to the previous page.

Figure #18: This page will appear only if you clicked the profile button on the previous page. Here, you can edit your profile photo and update your biography. There is also a backward button that takes you

back to the previous page.
16

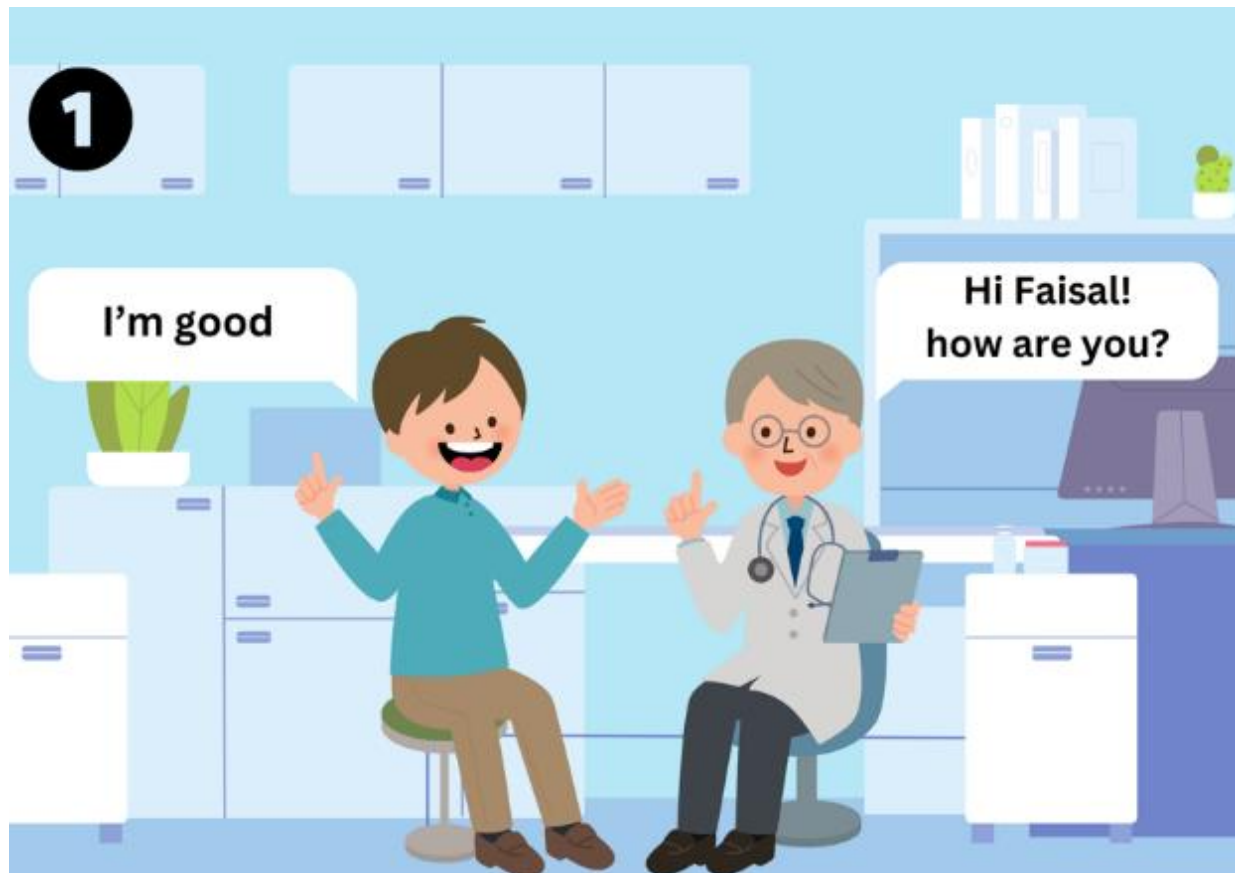
17

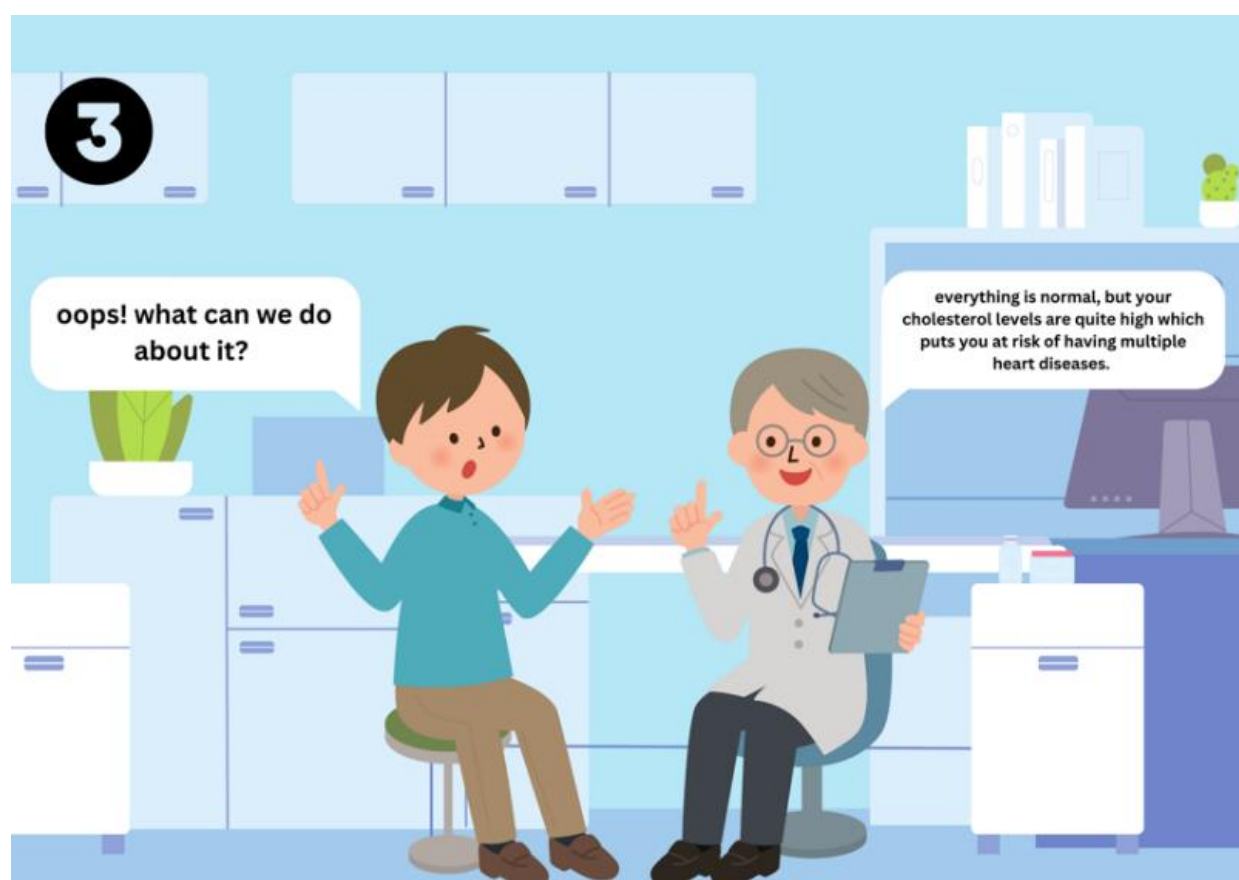
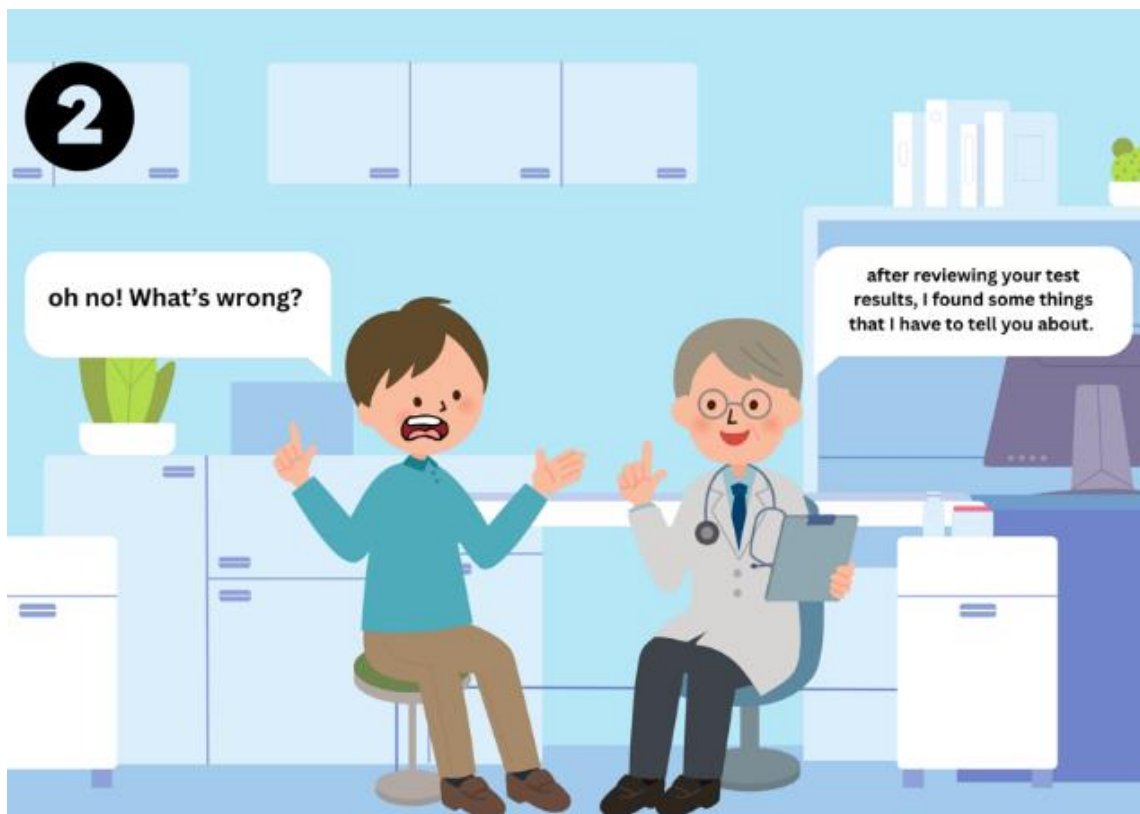
18

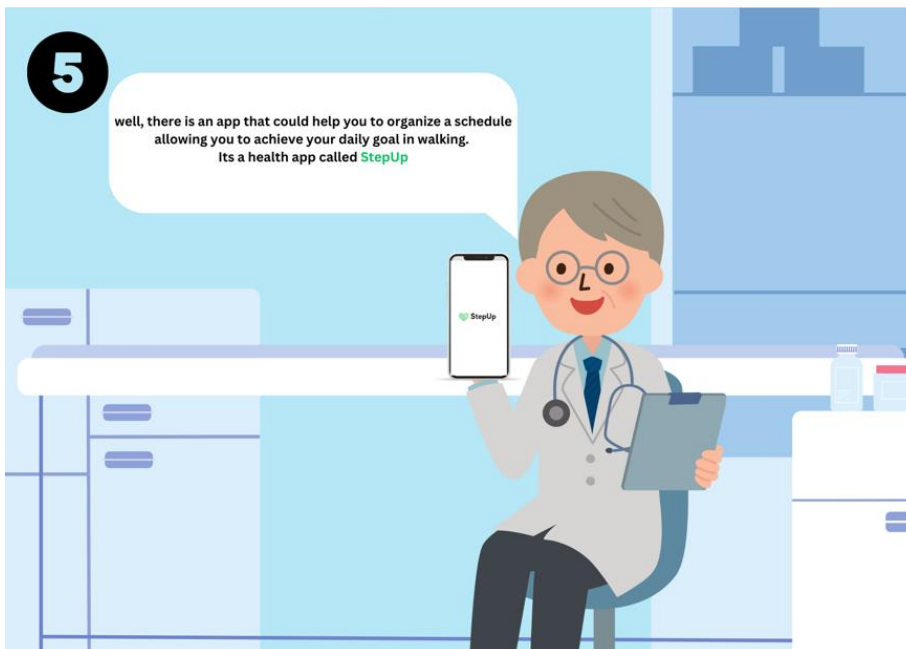
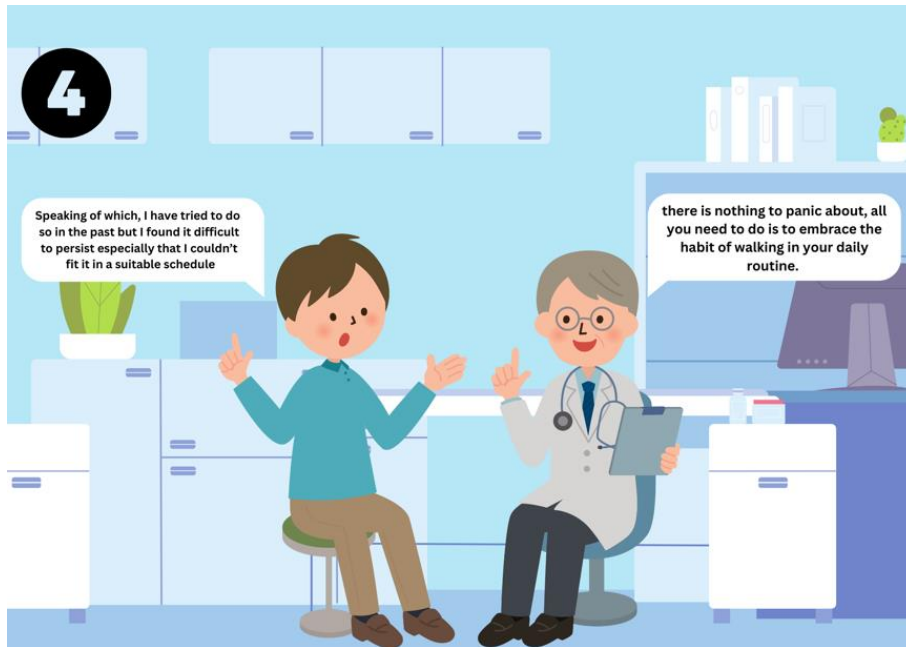
In figure #18, when user edit his bio or photo the system automatically made the change.

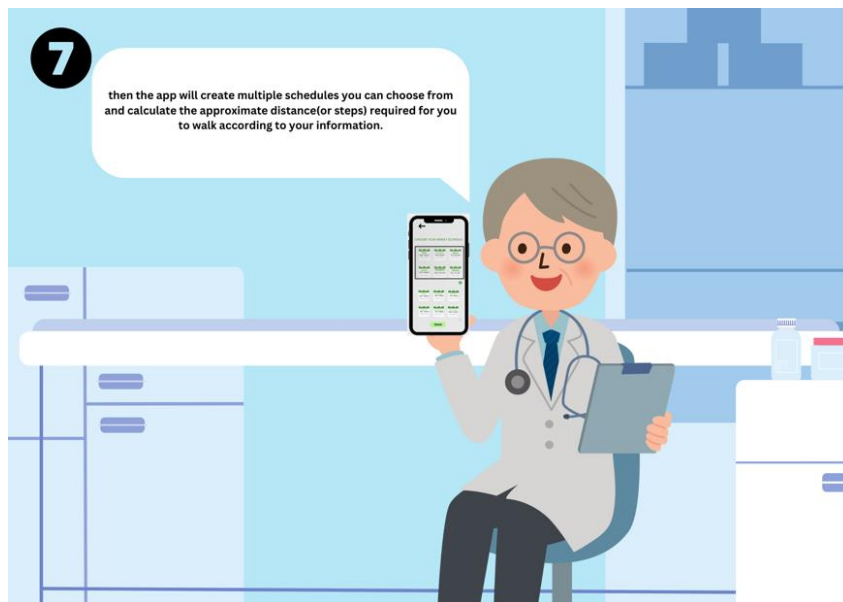
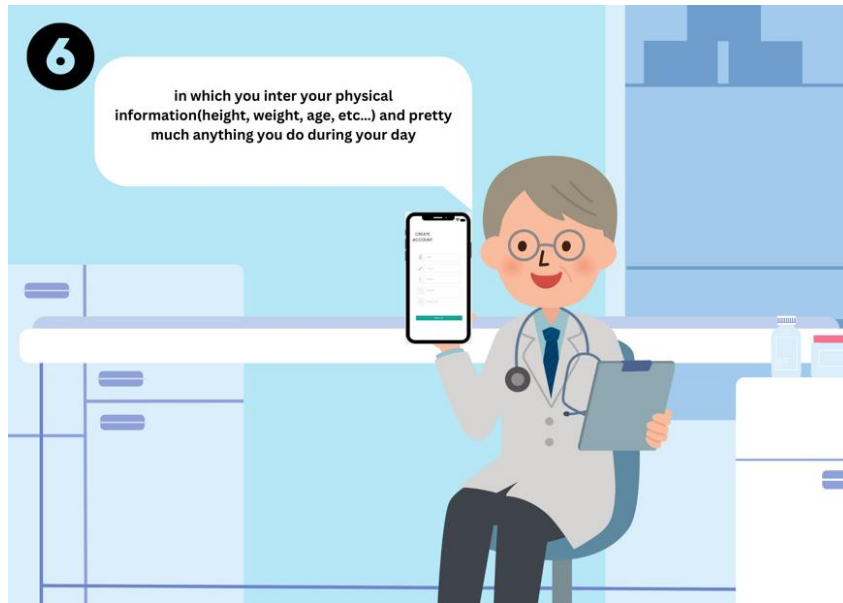
8. Story Board:

The storyboard follows a character named Faisal, who discovers the StepUp app and embarks on a transformative journey. This story board highlights some of the transformative power of the app, motivating users to incorporate walking into their daily routines, empowering them to set personalized walking schedules, connect with a supportive community, and ultimately achieve their walking goals. It showcases the app's features, tracking capabilities, challenges, and the positive impact it can have on an individual's physical and mental well-being.



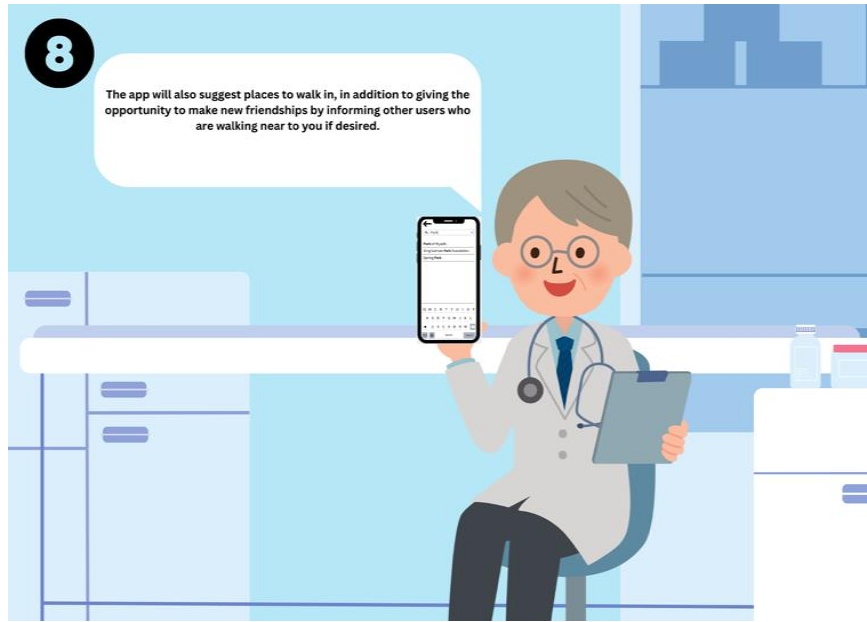


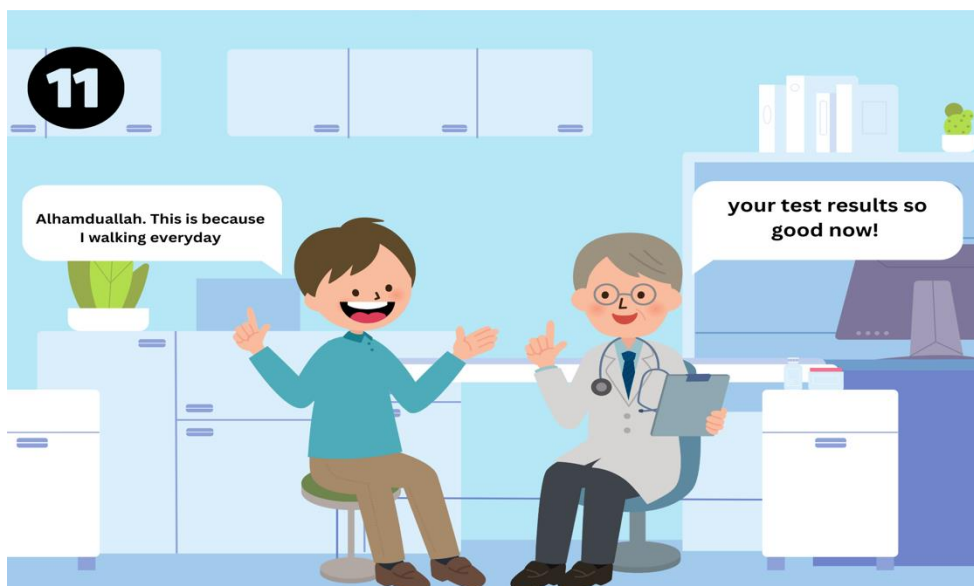
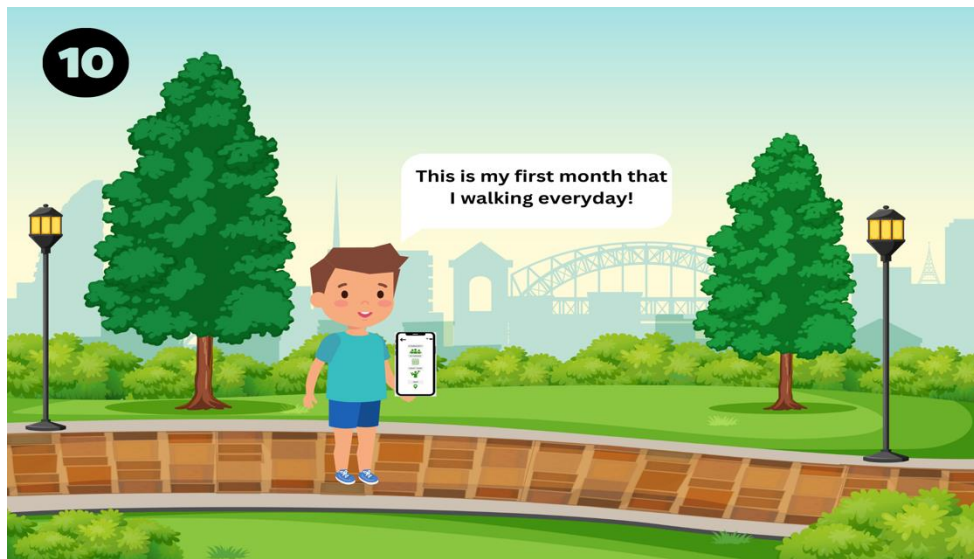
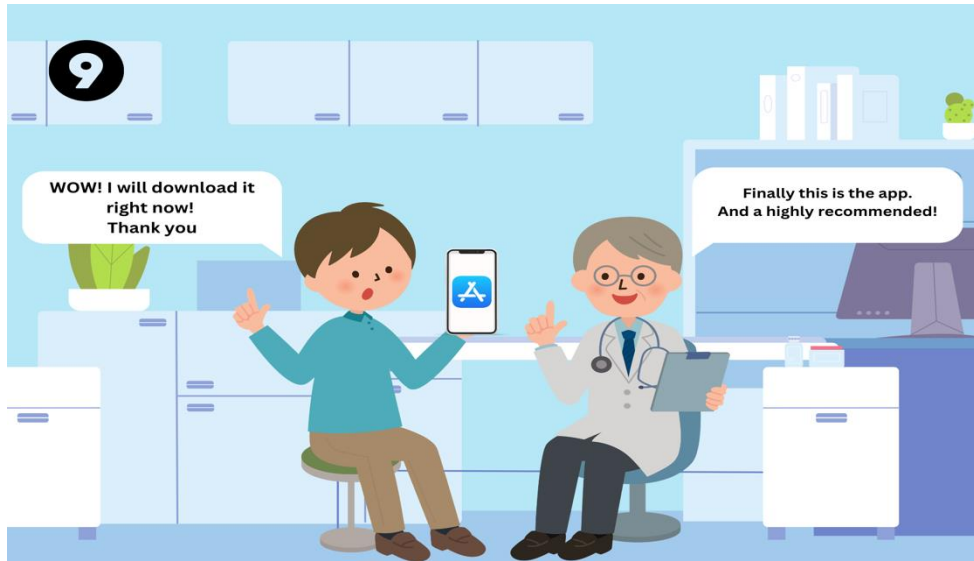




8

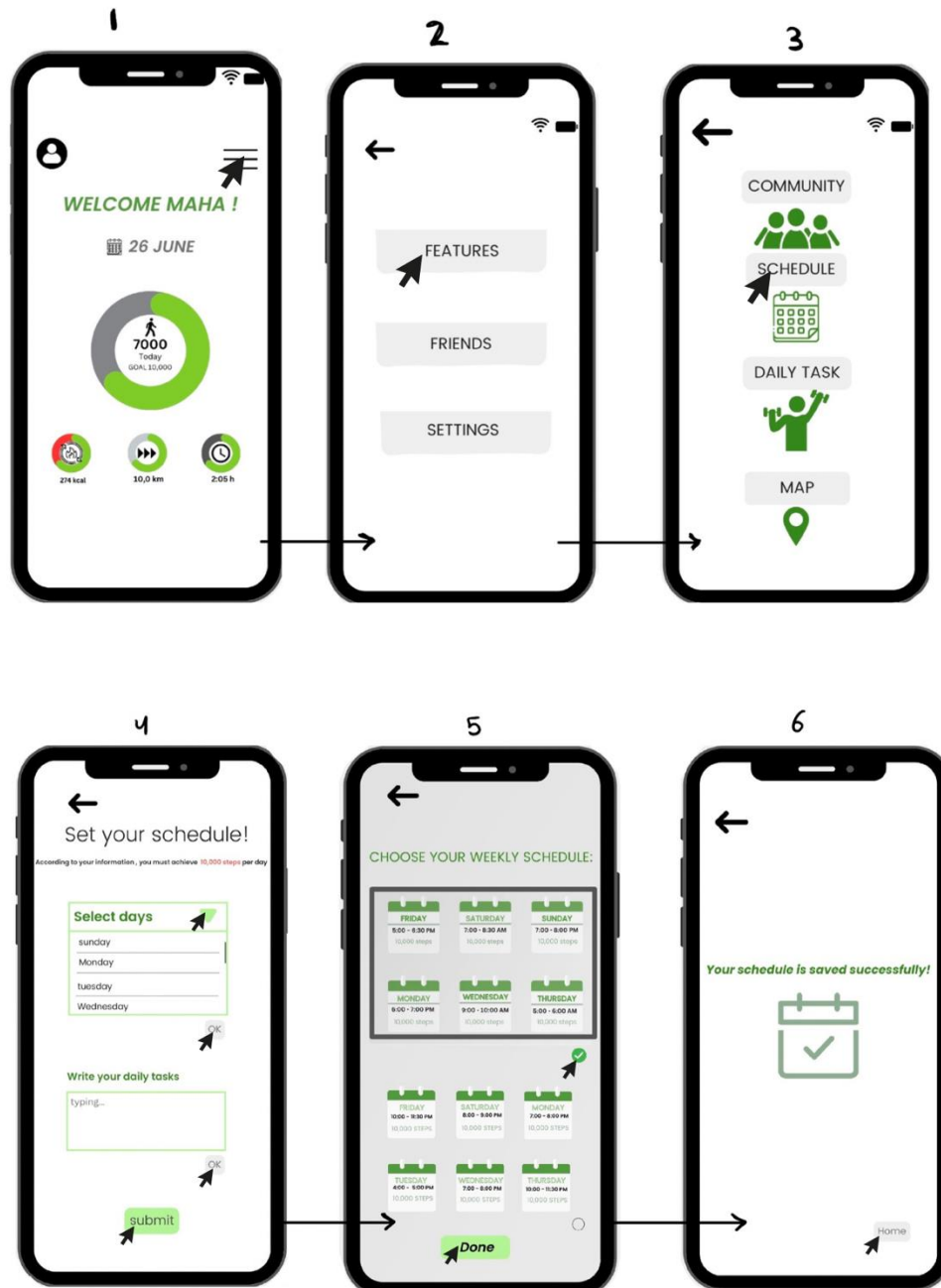
The app will also suggest places to walk in, in addition to giving the opportunity to make new friendships by informing other users who are walking near to you if desired.



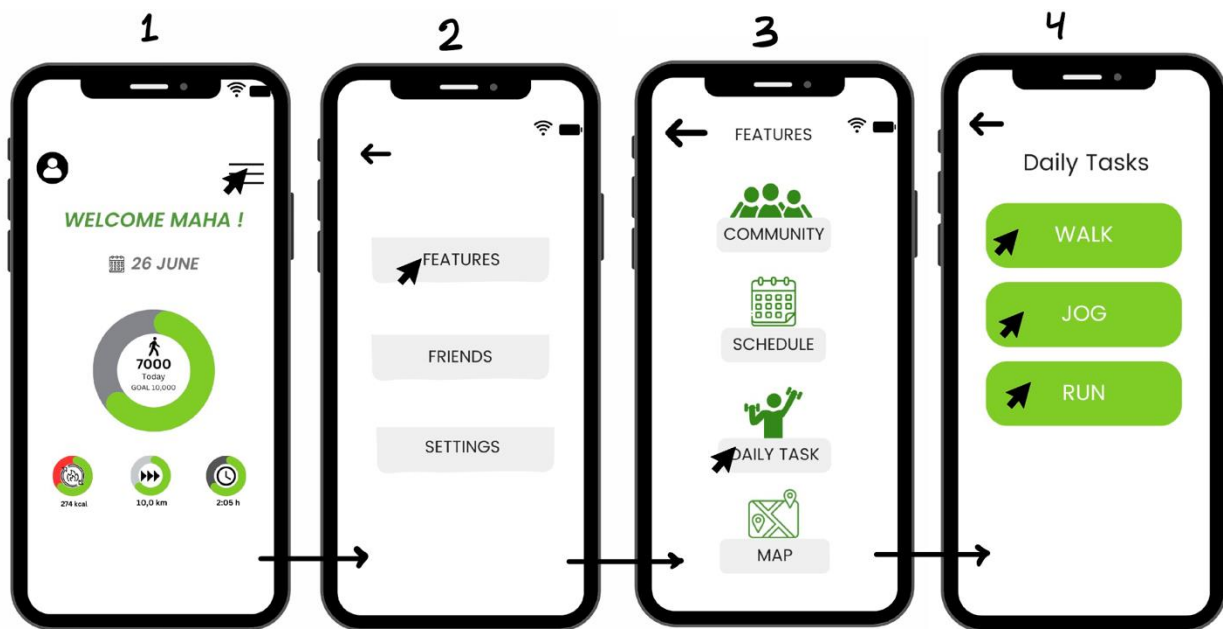


9. User Flow

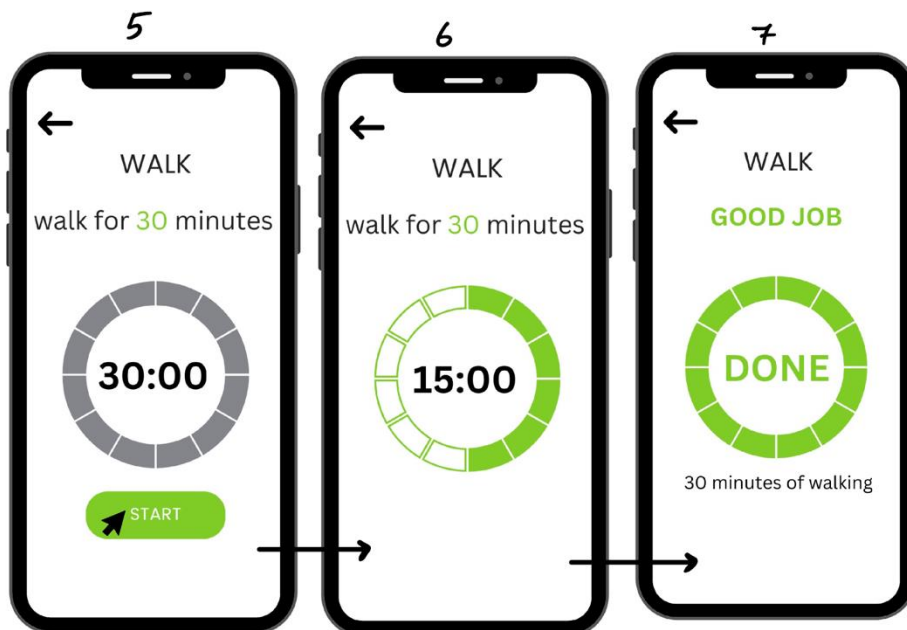
User story 1: **As a user, I want to** set a schedule and know my steps count **So that** I can achieve the walking habit.



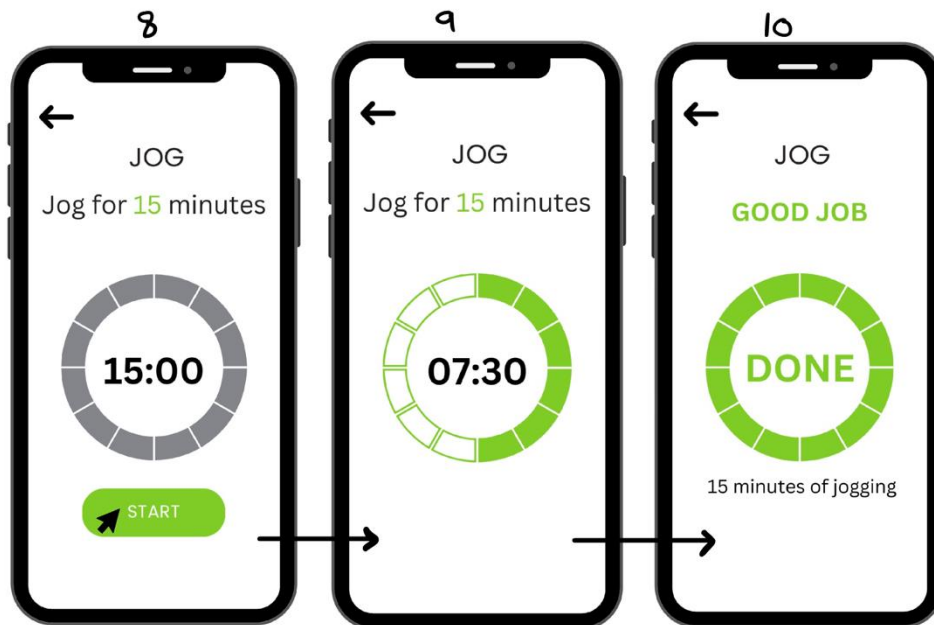
User story 2: As a user, I want to accomplish my daily tasks so that I can get the benefit of walking.



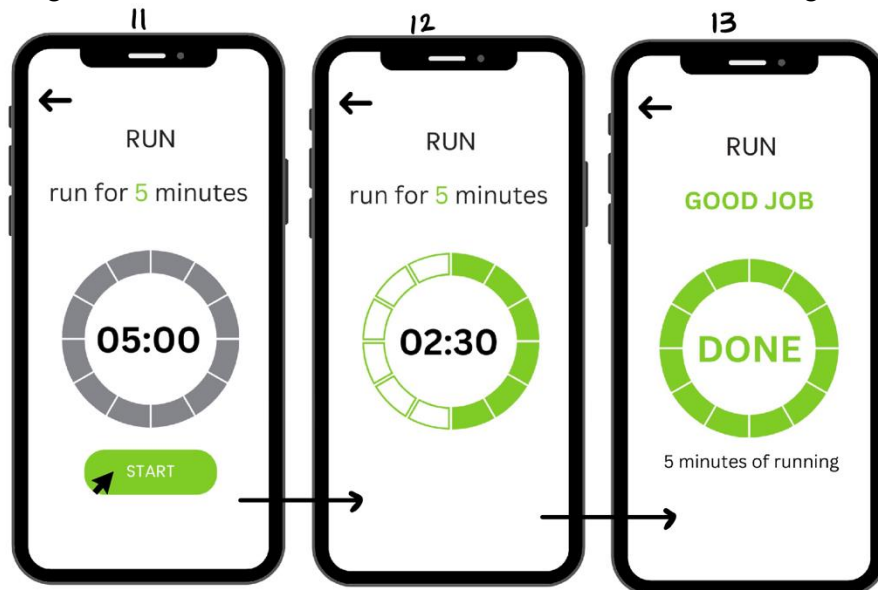
In figure #4, if “walk” button selected then the flow will continue in figure #5



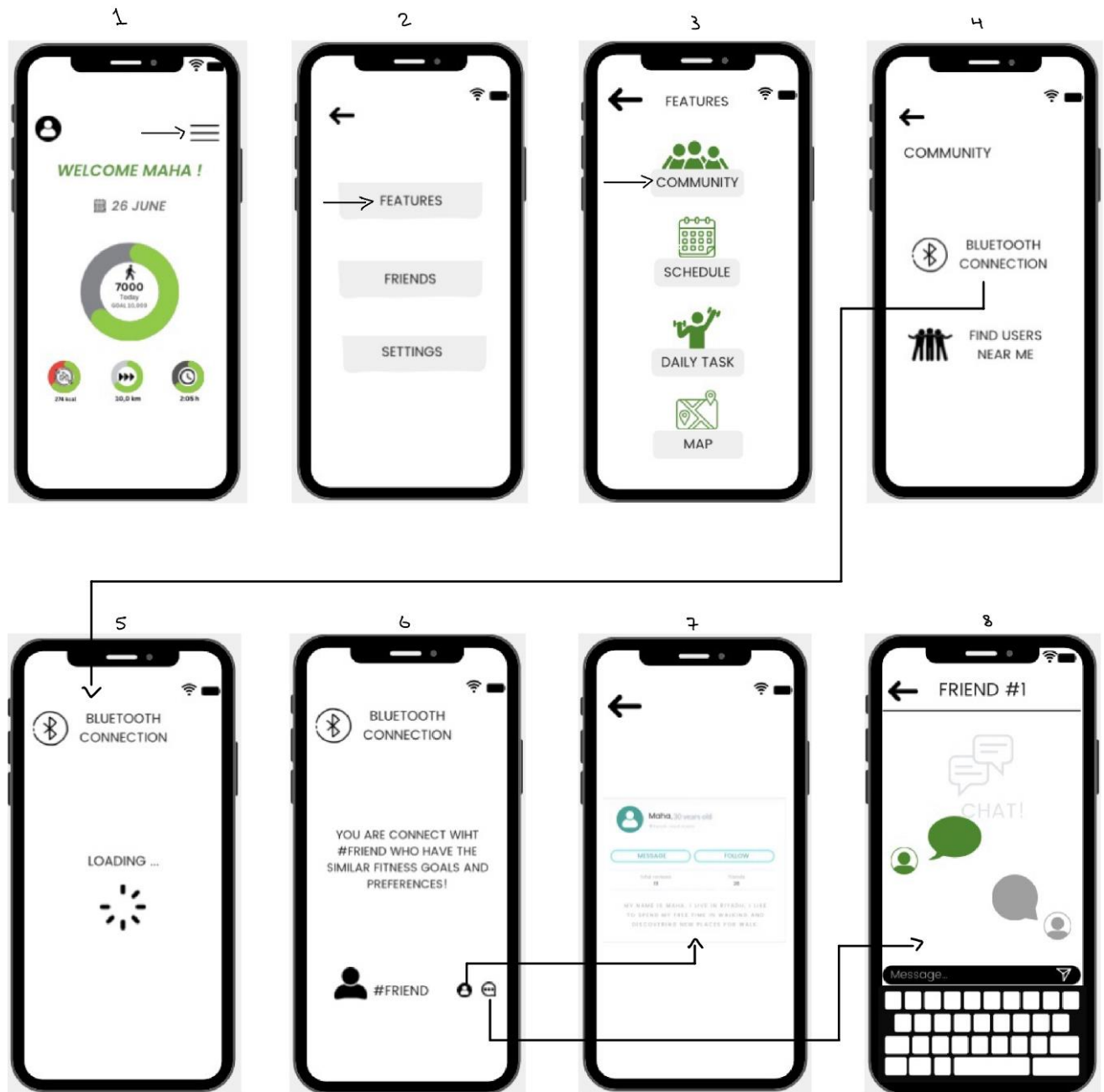
In figure #4, if “jog” button selected then the flow will continue in figure #8



In figure #4, if “run” button selected then the flow will continue in figure #11

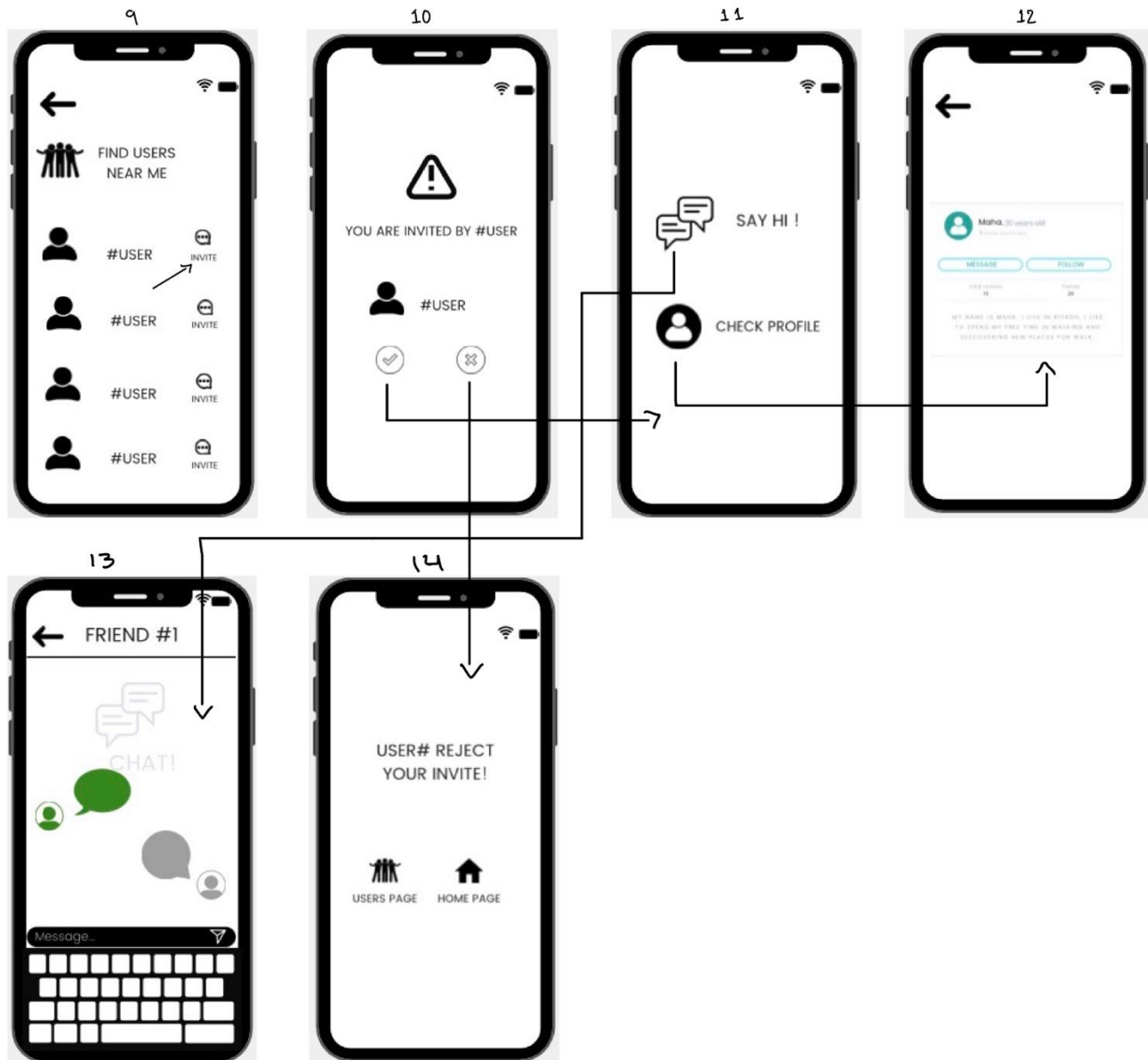


User story3 : **As a user, I want to** stay motivated and connect with like-minded individuals, **so that** I can stay motivated and engaged in my fitness journey.



In figure #4, if user choose (Bluetooth connection button) the flow will start with figure #5 and end with figure #8, else if user choose (Find users near me) the flow will start with figure #9 and will end with figure #12.

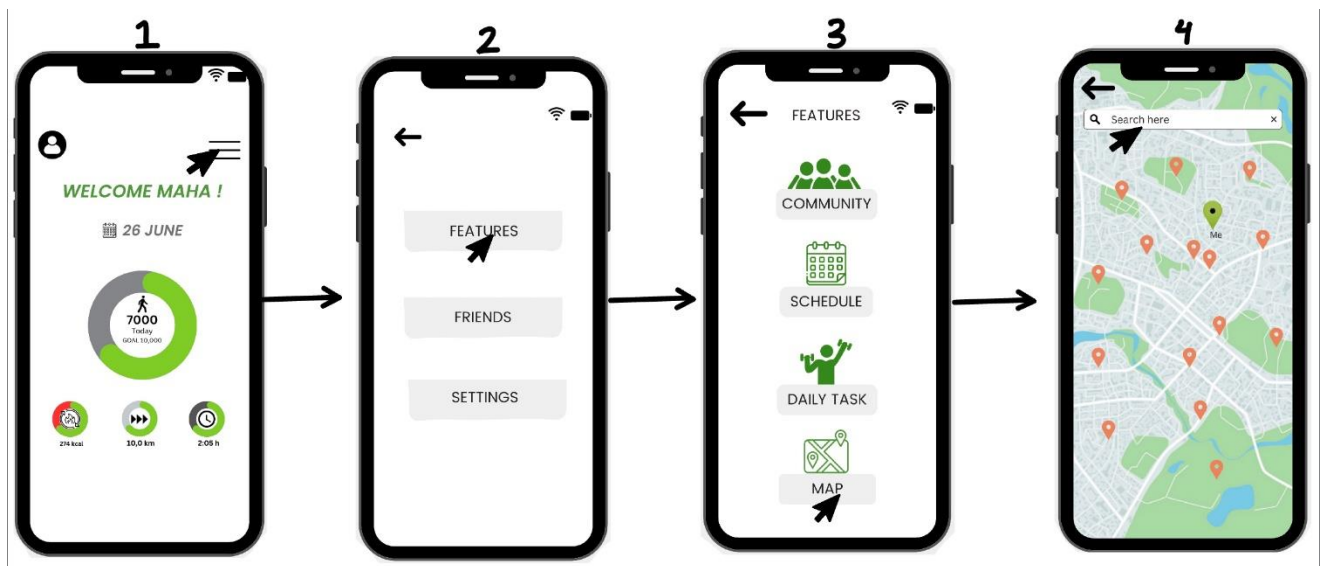
in figure #6 user have two choices, if user clicks chat button, figure #7 will appear, else if user clicks profile button, figure #8 will appear.



In figure #10 if user clicks (Ok button) figure #11 will appear, else if user clicks (Cancel button) figure #14 will appear.

User story 4: **As a user, I want to** find suitable places for walking **so that** I can enjoy walking and walk more

in figure#3 If the user clicks the map icon, a map page in figure#4 will appear user can move around, zoom-in and zoom-out to see more results.



In figure#7 User can see all people ratings and reviews (user can see more reviews by scrolling right and left), opening hours, number of active people in the place. Also, user can click on add review or the directions icon



10. Design Rules

Learnability Principles

Rule#	Principle		Sketch No/ User Flow No	Describe how you applied this principle
1	Predictability		(in most sketches)	-The user can predict that pressing “back arrow” is used to return to the previous page.
2		Operation visibility	user Flow #4(figure #9,10)	- The "Submit" button will be grayed out and unclickable until the user fills in the desired number of stars.
3	Synthesizability		User Flow #1(figure #6) Sketch #4	-when the user makes a new appropriate schedule, confirmation message will appear immediately. - When the user reset the password, confirmation message will show up.
4	Familiarity		User Flow #1(figure #3)	- Schedule, map pin, group of people, and active person icons are familiar to the user. -Trash and chat cloud icons are familiar to the user. - Language, profile, moon icons are familiar to the user.
5	Generalizability		Sketch #16	- The Sign up and Sign in page bears resemblance to the ones

		#3(figure #8) Sketch #13	found in many other applications. - The chat room is similar to most apps. - The map page is similar to those found in other apps that utilize maps.
6	Consistency	(in most sketches)	-The navigation bar is on the top left of the screen on almost every page.

Flexibility Principles

Rule#	Principle	Sketch No/ User Flow No	Describe how you applied this principle
7	Dialog initiative	User Flow #3(figure #10) User Flow#3 (figure #4)	The user must select one of the two options before being able to proceed with using the app. (System pre-emptive) The user is authorized to perform any available task, such as connecting with the nearest users or to find a list of nearby users. (User pre-emptive)

8	Multi-threading (<i>if applicable</i>)	#3(figure #8)	Writing on the keyboard and resaving message from a friend (concurrent)
9	Task migratability (<i>if applicable</i>)	#4(figure #5)	System assists the user while writing with some similar names
10	Substitutivity	#4(figure #8)	user can change the kilometers to miles
11	Customizability	Sketch #14	The user can change the screen mode to dark mode and turn it back to light mode(adaptability).

Robustness Principles

Rule#	Principle		Sketch No/ User Flow No	Describe how you applied this principle
12 13 14 15	Observability	Browsability	Sketch #10 User Flow#2	- Showing the state of Wi-Fi connection and battery - Showing the timer running state
		Defaults	Sketch #14	- Light mode is the default mode for the application.
		Reachability	(in most sketches)	- Users can navigate easily by using the side bar menu or using the arrow button on the top left of almost all pages.
		Persistence	#4(figure #9)	A notification will appear in the top to inform the user that he arrived (visual communication)
16	Recoverability		Sketch #7	As soon as the user enters their password, the system performs an immediate strength

			validation to prevent the use of weak passwords.
17	Responsiveness	#3(figure #5)	-when selecting “Bluetooth connection “ button in the “community” page, a downloading icon will appear until the app opens.
18	Task Conformance	<p>Sketch #18</p> <p>Sketch #12</p>	<p>-The user can do many tasks such as editing the profile photo, and editing the bio.</p> <p>User can add, delete a friend and see all the list</p>

11. Prototype

In this stage our app takes Design to the next level. We used proto.io high fidelity prototype to bring our sketches to life, resulting a simple and User-friendly interface.

We believe that great design is in the details, that's why we put so much thought into the buttons on our app, ensuring they're visually appealing.

Features

The creation of the prototype for the walking App involved approach to develop and showcase its key features and functionalities. The following is a summary of the process, including the implemented features, with a focus on the use of Proto.io for prototyping.

Features Implemented:

- 1- Reset password features, which help users when they forget their pass, they do not have to create a new StepUp account.
- 2- Daily Workout Tasks: The prototype incorporates a feature that presents users with daily workout tasks tailored to their fitness level and goals.
- 3- Finding suitable places: The app shows and suggests suitable places for walking around the user's location, displaying relevant information such as opening hours, number of active members, ratings and reviews.
- 4- Community Feature: The prototype includes a community feature that allows users to connect with other like-minded individuals, fostering motivation and providing a platform for sharing experiences and tips.
- 5- Profile feature, which you can access and see all the details about the user such as personal info, past reviews and user's friend.
- 6- Settings, which provides a lot of recommendations such as languages, update your personal info, dark mode, Bluetooth.
- 7- Friend's options, which provides your friend list with the ability to "Remove" or "Chat".

Tools:

Proto.io allowed us to design and link screens, incorporate interactive elements, and showcase the flow and functionality of the app in a realistic manner. Its intuitive interface and collaboration features facilitated the development process. It took a lot of effort designing our buttons so they can appear simple

and appearing to the user as we Designed them with different colors, shapes. Also, we designed them with shadows so they can help the user knowing it's a clickable button.

First step we made for designing our screens background is to import photos by dropping them into the “project assets”.

The most powerful feature is the interaction that takes us from page to another and from button to another which is located in the “Basic” section.

We also made our scrolling Interfaces by clicking on the scrollable feature to implement the map, reviews and the location Information page. Another tool that helped us a lot is the UI sections witch have many IOS buttons and icons such as loading bar, ON/OFF Switch , back and next flow that we use it when we build the “Dark Mode” feature, also we use the States tool to change the state from page to another in the Daily task feature(walk, jog, run),star rating and the directions.

For control the time of the transition” from page to another” by using the Time tool, also we use the checkbooks tool in the schedule feature to check what are the days of the week that the user wants to select. For the vocal notification we inserted our own MP3 audio and attached it to the “arrived” state. We also used proto’s own sound effects from the interaction to make the user more aware and focus.

We made the video by using the CapCut app. The app has a lot of useful tools that help us building our video such as text tool, cut, extract video, and we add an outside sound to makes our video more enjoyable by using the sound tool.

At the end, and through the implementation of the features in the prototype, the stepUp App aims to address and solve the problems that people commonly face when it comes to their walking routines. By providing daily tasks levels and goals, the app helps them overcome the challenge of not knowing the suitable steps for their walking journey, allowing users to connect with others who share similar fitness goals, offering motivation, accountability, and a platform for sharing tips and experiences and ensuring that each user can find a daily walk schedule that suits their needs and preferences. Overall, by incorporating these features into the prototype, the App addresses the common problems faced by individuals, ultimately promoting a more enjoyable and effective walking routine.

Prototype link:

<https://pr.to/0HSNR9/>

YouTube link:

<https://youtu.be/m4OxA6TLkSI>

12. Usability Testing

1. Participants

We conducted our usability testing with 6 following participants :faisal , ahmad, reem, Maha, sara and Abdullah. There were 3 males and 3 females in this group having age limits from 19 - 35. Apart from two (Abdullah and reem), others are job holders from the healthcare, banking and tech industry. They usually do long sittings at work and are willing to start any physical activity to get themselves healthy and fit. 4 out of 6 have at least 16 years of education and have prior experience with technology, particularly with smartphones.

<i>Participant name</i>	<i>Age</i>	<i>Gender</i>	<i>Experience with similar products (1-5)</i>	<i>Use of mobile/website interface (1-5)</i>
1 faisal	30	M	4	5
2 ahmad	25	M	3	4
3 reem	19	F	2	5
4 maha	25	F	4	4
5 sara	27	F	3	5
6 Abdullah	25	M	3	4
7 Lama	21	F	5	5
8 Muhammad	29	M	3	2

1. Procedure

Outline of the procedure

After finishing the design of StepUp v1 application, the team selected 6 random participants from our research sample to conduct our usability test. We prepared the consent form, the questionnaire, the scenario and the tasks that participants will perform during the sessions. We arranged one-to-one sessions with our participants at the date and time they preferred (mentioned above). At the Beginning of each session, we welcomed our participants and provided them with the consent form. Before we read the facilitator script, we asked them to think aloud while performing the task to tell us what they were doing and why they were doing it this way. Then we read the scenario and gave them

the 6 tasks that they will test using the application. After the participants finished the tasks, we gave them a questionnaire and interviewed them. Finally, we thanked the participants for their cooperation with us.

Timeline

The test was conducted between 27 of May to 28 of May 2023. Session's time varied between 4 – 15 minutes.

Participant name	Day	Date	Start session time	Finish session time	Duration of session
1 Faisal	Saturday	27/5/2023	1:32 pm	1:40 pm	8 min
2 Ahmad	Saturday	27/5/2023	10:00 am	10:15 am	15 min
3 reem	Sunday	28/5/2023	9:36 am	9:39 am	4 min
4 maha	Sunday	28/5/2023	6:02 pm	6:11 pm	9 min
5 sara	Sunday	28/5/2023	7:09 pm	7:14 pm	5 min
6 Abdullah	Sunday	28/5/2023	11:00 am	11:11 am	11min
7 Lama	Saturday	27/5/2023	2:45 pm	2:52 pm	7min
8 Muhammad	Sunday	28/5/2023	10:20 pm	10:28 pm	8min

Tasks

We tested 6 tasks on our StepUp prototype application to measure the ease of interfaces, navigation and readability of design.

Task #	Task <i>(as it is was presented to users)</i>	Objective of the task <i>(What was this task designed for measuring?)</i>
1	Start the daily task run timer	Setting a daily running timer within the app. This could involve specifying a certain amount of time for running each day.
2	Make a new schedule	If the user wants to create a daily walking schedule based on their daily activities and tasks, the program will suggest a suitable schedule based on their tasks.
3	Finding places to walk	If the user wants to search for a suitable place to walk, they can choose nearby locations through the map and see reviews about the place.
4	Find People Nearby	The user can choose friends to walk with, whether they are colleagues in the same location or friends who have already been added to their friends list.

Performance Measures and Feedback

The metrics we used to measure performance are effectiveness, efficiency, and satisfaction. We measured the effectiveness by counting the number of tasks completed successfully and the number of errors per task. We also measured the efficiency by calculating the time to finish the task, and then calculate the average. To measure satisfaction, we conducted a survey to take the participant's feedback about the individual task.

<i>Metric</i>	<i>How was it measured?</i>	<i>How was the data created/captured?</i>
Effectiveness	Task success	By observing the participants during the sessions and counting the number of tasks completed successfully.
	Number of Errors	By observing the participant during the sessions and counting the number of errors per task.
Efficiency	Time on Task	By using a timer during sessions to measure the time needed by the participant to finish the task, and then we calculated the average.
Satisfaction	survey	By making Google forms surveys and sharing it with the participant to fill it when they finished the tasks, then we calculated the satisfaction rate based on the answers.

12.1. Results:

Task Completion Success Rate and Time on Task

<i>Participant</i>	<i>Task 1</i>		<i>Task 2</i>		<i>Task 3</i>		<i>Task 4</i>	
	<i>Complete Task</i>	<i>Time On Task</i>	<i>Complete Task</i>	<i>Time On Task</i>	<i>Complete Task</i>	<i>Time On Task</i>	<i>Complete Task</i>	<i>Time On Task</i>
1	√	00:10:63	√	00:25:70	√	00:26:37	√	01:33:12
2	√	00:13:07	√	00:30:76	√	00:24:77	√	00:45:46
3	√	00:20:06	√	00:51:12	√	00:46:23	√	00:57:04
4	√	00:17:09	√	01:02:12	√	00:53:18	√	00:40:13

5	√	00:24:13	√	00:28:07	√	00:43:04	√	01:08:15
6	√	00:15:45	√	01:01:10	√	01:01:12	√	01:17:05
7	√	00:26:15	√	00:47:03	√	00:33:24	√	00:44:50
8	√	00:19:37	√	00:50:16	√	00:40:56	√	01:02:17
<i>Success</i>	8		8		8		8	
<i>Completion Rates</i>	100%		100%		100%		100%	
<i>Average Time on Task</i>	00:18:24		00:44:275		00:40:781		01:00:770	

Errors

<i>Tasks</i>	<i>Number of errors</i>	<i>Errors description</i>	<i>Critical or non-critical (C,NC)</i>
Task 1	4	The user cannot specify the time they want to walk. They cannot set it, only a fixed time is available.	<i>C</i>
		If the user wants to press the button, they do not know whether to click on the text or the image.	<i>NC</i>
Task 2	3	When selecting the appropriate schedule for walking, the times and days are written in a very small font.	<i>C</i>
		If the user wants to press the button, they do not know whether to click on the text or the image.	<i>NC</i>
		Some users took so much time while set their schedule because there is a lot of choices in the scheduling page	<i>NC</i>
Task 3	2	The scroll bar for reviews was unclear to the users and didn't know that by scrolling they can see more.	<i>NC</i>
		Users expect to see more information about a place by clicking on the pin icon in the map.	<i>NC</i>
Task 4	4	The user cannot differentiate when selecting the friends list and feature community when searching for friends to walk with.	<i>C</i>
		If the user wants to press the button, they do not know whether to click on the text or the image.	<i>NC</i>

If the user wants to search for friends doesn't know where to search for friends nearby because they can't differentiate between the 'friends' button or the 'community' button. Also, if the user wants to change the suggested walking time, either by increasing or decreasing it, they can't modify it. And if we want to talking about the non-critical errors the user doesn't know if they should click on the text or symbols to navigate to the next page.

Summary of Data

<i>Tasks</i>	<i>Task Completion</i>	<i>Errors</i>	<i>Time on Task</i>
Task 1	8	4	18.24s
Task 2	8	3	44.275s
Task 3	8	2	40.781s
Task 4	8	3	60.77s

User Satisfaction

<i>Question</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Mean Rating</i>	<i>Percent Agree*</i>
Is the typography clear and easy to read throughout the app?		2	4	3		5.6	37.5%
Did the interactive elements and transitions between screens feel smooth and seamless?			3	5		5.8	62.5%
I understand every feature and how to use it in the system?				2	6	7.6	100%
Comparing StepUp with other walking apps, does the interfaces look familiar and similar to the other apps' interfaces?				1	7	7.8	100%
How well does the app's layout and organization of elements guide you			2	3	3	6.6	75%

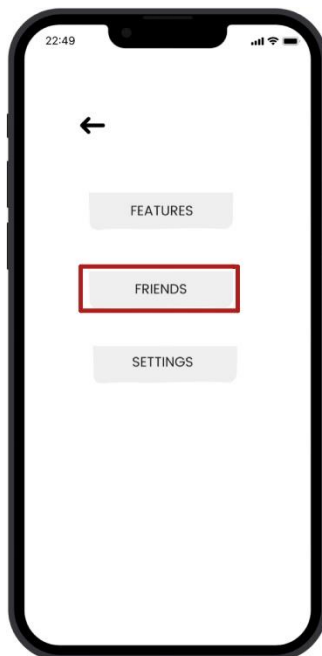
through the user journey?							
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**Percent Agree (%) = Agree & Strongly Agree Responses combined*

12.2. Discussion:

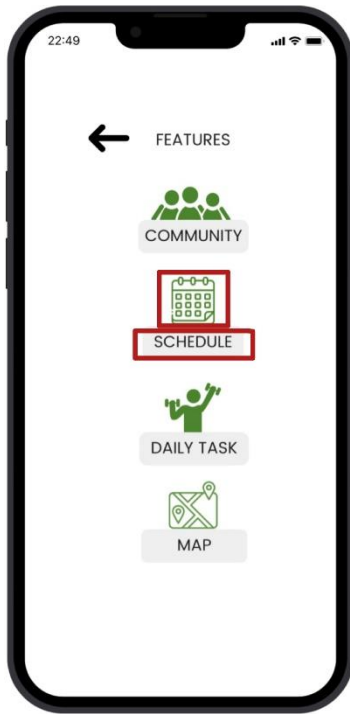
In this discussion, we will address several important topics identified during the evaluation of the prototype. These topics highlight critical and major problems that impact the user experience, as well as minor problems that can be improved for enhanced usability. By focusing on these areas, we aim to refine the app design and create a more user-friendly and engaging experience.

- 1- A critical problem identified in the prototype is the confusion and difficulty users face when trying to differentiate between the friends list and the community feature while searching for friends to walk with (Task#4). This lack of clarity results in users spending more time navigating through the app and may lead to frustration and reduced engagement.

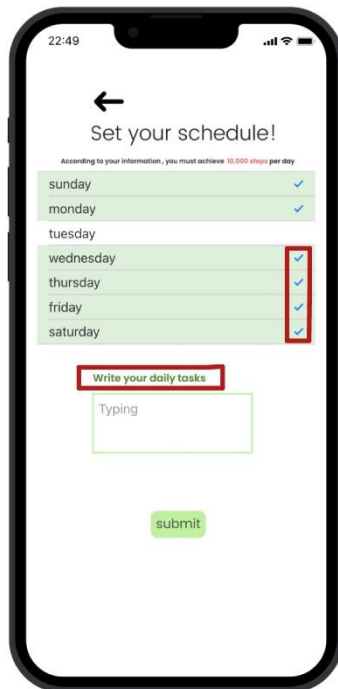


- 2- A major problem that has been identified in the prototype is the ambiguity surrounding the interaction with buttons, specifically when users are unsure whether they should click on the text, or the associated image (In all tasks). This confusion can lead to a frustrating user experience, as users may struggle to perform intended actions or navigate through the app seamlessly. The lack

of clarity in button design and functionality hinders the user's ability to engage effectively with the app's features and can result in a loss of productivity and engagement.



- 3- A minor problem observed in the prototype is the time it takes for some users to set their schedule due to the abundance of choices available on the scheduling page (Task#2). While having multiple options can be beneficial for customization, it can also lead to decision paralysis and make the process more time-consuming. Although this issue does not significantly hinder the overall functionality of the app, it may slightly impact the user experience and efficiency and it can be decreased by using the app over the time.



12.3. Recommendations

1- Simplify the navigation: Some participants expressed confusion or difficulty in navigating through certain sections of the app. To address this, it is recommended to streamline the navigation by simplifying the menu structure and ensuring clear labelling of sections.

- 1- Enhance visual cues: A few participants mentioned the need for clearer visual cues and affordances to guide their interactions within the app. To improve this, it is recommended to use visual cues such as icons, tooltips, or animations to provide clear indications of interactive elements and actions.
- 2- flexible and customizable Daily Task feature: some users are not being able to specify their desired walking time, and to address this issue, it is recommended to introduce a feature that allows users to customize the walking time according to their preferences. Implementing a flexible time option where users can input their desired duration or time slot will enhance the app's usability and cater to individual needs.

- 3- **Increase Font Size:** Enlarge the font size of the times and days displayed in the schedule selection interface, also Choose a font type and style that is clear and easy to read. This will ensure that the information is easily legible for users of all ages and visual abilities
- 4- **Visual Differentiation:** Clearly differentiate the friends list and the community feature in terms of visual design. Use distinct icons, colors, or labels for each option to help users easily identify and differentiate between the two.
- 5- **Scroll Bar Indicator:** Some users see that the scroll bar for reviews was unclear, and they could not see more reviews. To improve that we recommended to add an indicator or marker within the scroll bar to indicate the current position of the visible reviews and the total number of reviews available. This will provide users with a visual reference and allow them to understand how much content is left to scroll through.
- 6- **Icon and Text Combination:** If buttons have both an icon and text, ensure that they both act as clickable elements and have the same click behaviour. Users should be able to click either the icon or the text to activate the button's action. This provides flexibility and accommodates different user preferences.

Appendix C: Usability Test

- 1- Consent form

STUDY DETAILS

The purpose of this study is for us to better understand the user experience of our product StepUp. Your participation in this study will help us modify, develop, or otherwise improve our product's overall experience and flow. This study will consist of a 1-on-1 interview / Online Sitting with a member of our research team.

DATA WE WILL COLLECT

We will ask you questions about your use of our products and services. We may record the session and we will take notes to record your comments. We will not request, and you should not provide, any sensitive personal information in this study.

HOW WE WILL USE YOUR DATA

Any data, recording or other personal information collected about you will be treated confidentially. We may use recordings and notes for internal purposes as we continue to improve our products and services. We may also anonymize your responses and aggregate them with the responses of other participants in order to share study results externally.

YOUR RIGHTS

Your participation in this study is voluntary. You can take a break or discontinue participation at any time without giving a reason. If you have any questions or concerns about this study or if you wish to withdraw your consent in the future.

YOUR CONSENT

I give my consent:

- 1- For the session to be recorded
- 2- For individuals at *StepUp* to use the recordings and notes for internal purposes
- 3- For *StepUp* to aggregate and anonymize my data to share study results externally

By signing below, you acknowledge that you are 18 years of age or older and have read and understood the information in this Research Consent Form.

4- Facilitator Script:

Scenario:

Imagine waking up early on a beautiful Saturday morning, feeling refreshed and ready to start your day. You've been wanting to incorporate more physical activity into your routine, and today seems like the perfect day to start. You put on your comfortable walking shoes, grab your water bottle, and open up your walking app. The app offers you to start planning your Schedule and find some walking partners and places, Also you can set a timer to start your walking Tasks. First you will have to sign in and go to the main menu to do the these features :

1. Start the daily task run timer
2. Make a new schedule
3. Finding places to walk
4. Find People Nearby

Questioners form :

1- Is the typography clear and easy to read throughout the app?

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

2- Did the interactive elements and transitions between screens feel smooth and seamless?

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

3- I understand every feature and how to use it in the system?

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

4- Comparing StepUp with other walking apps, does the interfaces look familiar and similar to the other apps' interfaces?

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

5- How well does the app's layout and organization of elements guide you through the user journey?

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

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