

COMP2213 - Interaction Design

Deliverable 4

Prototype Summary, Video, Evaluation
Group 6

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Figure 1 Login Page



Figure 2 Start Page



Figure 3 Travelling Page

1. Login Page

The login page allows users to enter their credentials, such as a username and password, to gain access to the app. The login page includes fields for entering a username and password and a button to submit the information and log in. It also includes options for creating a new account, resetting a forgotten password, or using social media login.

2. Start Page

The start page will show the digital pet, a virtual pet that can be changed to different forms, such as different breeds of dogs, to cater to user preferences. It has animations of small gestures and actions to make it more realistic. Users can tap it to see its health and long-press it to feed it. The paw button is the start button for each travel. A tap on it takes users to the travel page and the default mode is walking. Users can change the mode with a long press. The food bowl indicates the rest of the food and the hut is used in bad weather. The weather symbol shows real-time weather and users can check for the next few hours. The setting page can be opened by tapping the three bars and users can check for other details like their profiles or friends. The point indicates the total points earned; users can spend it on dog food or donate to animal rescue organizations. Points can also be converted to and from carbon emissions to increase public awareness of environmental protection.

3. Travelling Page

The travelling page features an animation of the digital pet, which displays corresponding actions based on the mode of travel. For example, when travelling on foot, the dog is shown walking on the grass and when travelling on

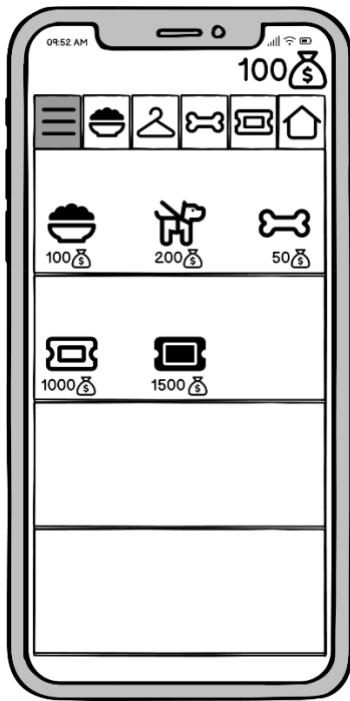


Figure 4 Store Page

the bus, the dog is shown sitting on a seat. It serves as both an indicator and companion during the trip. The miles feature indicates how many miles the user has travelled. The home button, located in the same place as the paw button, allows users to end their trip and return to the start page with points settlement. Users can change their travel mode with a long press of the button and choose from options such as walking, bus, biking, and others.

4. Store Page

The Store page features several options for viewing different types of commodities. The "All commodity" option is the default and shows all items in the store. The "Food" option displays only food items, "Clothing" displays clothing items, "Toys" displays toy items and "Tickets" displays the bus tickets which can be exchanged at the time. The "Storage" option shows all items that the user has purchased, including digital tickets. The "Shelf" feature lists all items in the chosen category. The dark shadow on the button will indicate the current page of the store.

5. Setting Page

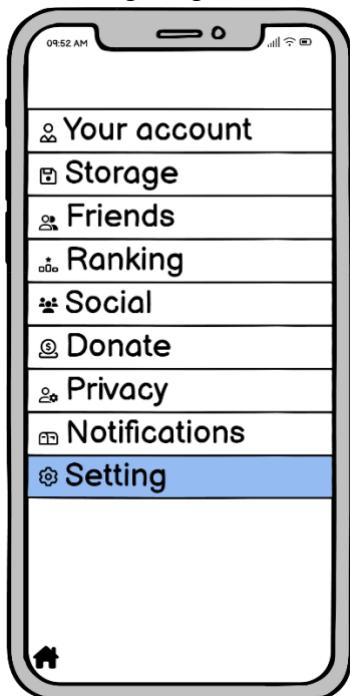


Figure 5 Setting Page

The Setting page allows users to view and edit their account information, view their storage, view and manage their friend list, view their ranking, connect and manage their social media accounts, donate to animal rescue organizations, view the app's privacy policy, view recent notifications, and adjust app settings such as font size, background music volume, and language. Users' profiles will show their avatars, nicknames, and history of donations. The friend list shows friends' nicknames and the health of their digital pets. The ranking feature can be adjusted to display rankings for groups, societies, or cities. The donate feature displays a list of animal rescue organizations that accept donations of points, and users can view their donation history in their profile. The privacy feature displays the app's privacy policy. The notification feature shows recent notifications, for example, when a friend has helped to feed the user's digital pet. The setting feature allows users to

adjust the size of letters, the volume of background music, the sound for notifications, and the language.

Evaluation of Low-Fidelity Prototype of a Gamification app to Encourage Sustainable travel

Abstract

Gamification is a new form of functional software that is not widely used by people on a daily basis, and its excellent communication and guidance are already commonly recognized in other areas. For functional software that emphasizes simplicity and ease of use, the acceptance of gamification is certainly an issue that needs to be addressed. In this article, we present gamification software in the form of a virtual pet, which is inherently designed to encourage users to use sustainable travel methods and to provide feedback and rewards. We invited a total of six members of another COMP2213 coursework team to participate in the evaluation of our low-fidelity prototype following the focus group protocol. At the end of the process, we asked several questions related to usability and usefulness and the participants expressed positive feedback.

Introduction

The design concept of gamification and guidance were explored and summarized in the previous two deliveries in the context of various literature, as well as a detailed interpretation and validation of the functionality through our analysis of the virtual pet, which will not be repeated here. In this paper, we focus on documenting feedback from the testers involved in the evaluation of the conceptual suitability of the low-fidelity prototype, and on the further discussion around several issues raised during the process.

Method

In order to make the feedback from the testers involved in the assessment simple and efficient for the assessment recorders, several task objectives were designed and explained to the testers prior to the start of the assessment. The design of the task is based on the following three criteria:

- Feelings while seeing a scene displayed in a low-fidelity prototype.
- Feelings while listening to the demonstrator's description of the low-fidelity prototype scene.
- Feelings after the demonstrator has shown all the low-fidelity prototype scenarios and explained all the features and systems.

There were four pauses throughout the presentation, corresponding to each of the four types of scenarios presented:

- Account creation/login screen
- Virtual pet interaction interface
- Pet interaction props interface
- Social interaction interface

The demonstrator reminded the participants to express their feelings about the scenarios in order, and the recorder marked these feelings as positive, neutral, or negative, and recorded their questions and comments in detail.

At the end of the presentation, nine questions were given to the participants and responses recorded:

- Do you think the app will be easy to use in practice?
- Which part of the whole presentation appealed to you the most
- Which part of the presentation did you find dull?
- Do you have any comments on the pet interaction gameplay?
- Do you have any comments on incentives for the use of sustainable transport?

- Do you have any comments on the social sharing systems?
- If this app was implemented, what do you think would draw you to this app?
- What do you think was the most difficult part of the implementation process of the app design?
- If you could add a feature, what feature would you like to see the most added to the app?

Evaluation of the Questions

The question on app's ease of use in practice aims to gather feedback on how user-friendly the app is in real-world scenarios. The feedback will help to identify any usability issues that users may encounter while using the app and provide suggestions for making the app more intuitive.

The question on the most appealing part of the presentation is to understand which aspect of the presentation caught the user's attention and piqued their interest. This information can be used to tailor future presentations to the audience's preferences.

The question on the least appealing part of the presentation is to identify which aspect of the presentation did not hold the user's interest. This information can be used to improve future presentations by avoiding similar elements.

The question on the pet interaction gameplay feature is to gather feedback on how well this feature is functioning, any issues or suggestions for improvement.

The question on incentives for sustainable transport is to understand if the incentives provided are effective in encouraging users to use sustainable transport. The feedback can be used to improve the incentives in the future.

The question on the social sharing systems feature is to understand how well this feature

is functioning, if users find it useful and suggestions for improvement.

The question on what would attract users to the app aims to gather ideas on what features or elements would make the app appealing to users and make them want to use it.

The question on the most challenging part of the app design process is to understand which aspects of the design process were the most challenging for the developer. This information can be used to improve the design process in the future.

The question on the feature that the user would like to see added to the app is to gather ideas for new features that users would find useful and improve the app.

Analysis

At the end of the presentation of the login/registration interface, all six evaluation participants gave positive comments and five of them expressed their approval of the simplicity of the interface and the richness and completeness of the functionality.

At the end of the demonstration of the pet interaction interface, five of the six evaluation participants expressed a positive opinion of the interface, with one expressing an average opinion. Most of the participants commented that the presentation and explanation of the functionality of the interface were comprehensive and useful enough, with the average rating being based on the fact that they found the currency UI in the top right corner off-putting and suggested that it be hidden in a secondary interactive interface.

At the end of the presentation of the pet interactive item interface, three of the six evaluation participants gave an average rating, one participant gave a positive rating, and two participants gave a negative rating. Participants who submitted positive comments, outlined the functionality and cleanliness of the interface. Participants who expressed a negative opinion stated that the design of the interface was too old and too

different compared to the main interface, which in conclusion, significantly reduced the concentration of the user. Another participant expressed confusion about the design of the interactive interface for the donation history.

At the end of the presentation of the social interaction interface, two evaluation participants expressed positive ratings, two expressed average ratings, and remaining two expressed negative ratings. Those who submitted negative comments indicated that the social system was rather outdated and that they would like to see short video social content shared through TikTok and Instagram.

In all four experiences, there was no apparent confusion about the design of the function buttons and function icons, or the reward mechanism and interaction system.

The feedback on each of the nine questions is briefly summarized below using a one-to-one approach and then set out.

- All evaluation participants expressed positive responses and the ease of use of this low-fidelity prototype was validated.
- All evaluation participants expressed their satisfaction with the interactive pet interface and gave strong positive feedback on the different responses of the virtual pets to different weather.
- One participant said the design of the interface for the pet interaction props was poor, and another said the depth of the social features was not interesting to them.
- One participant proposed more options for the customization of pet types and two participants seconded the motion.
- One participant said the reward was attractive but wanted a wider variety of rewards and questioned the difficulty of accessing the reward, saying it would be difficult to achieve even in the long term.
- One participant wanted to add more social features within the app, not just sharing screenshots, which could lead to a lack of social elements to the point of losing a lot of users in the short term. Another participant expressed a desire to integrate with short video apps so that when content is shared on a social app, short videos or GIFs are automatically generated that are interesting enough to attract users.
- Many participants said they might download the app because of the narrated videos

on the short video app or the recommendations posted by friends on other social media apps and expressed their rejection of traditional advertising formats.

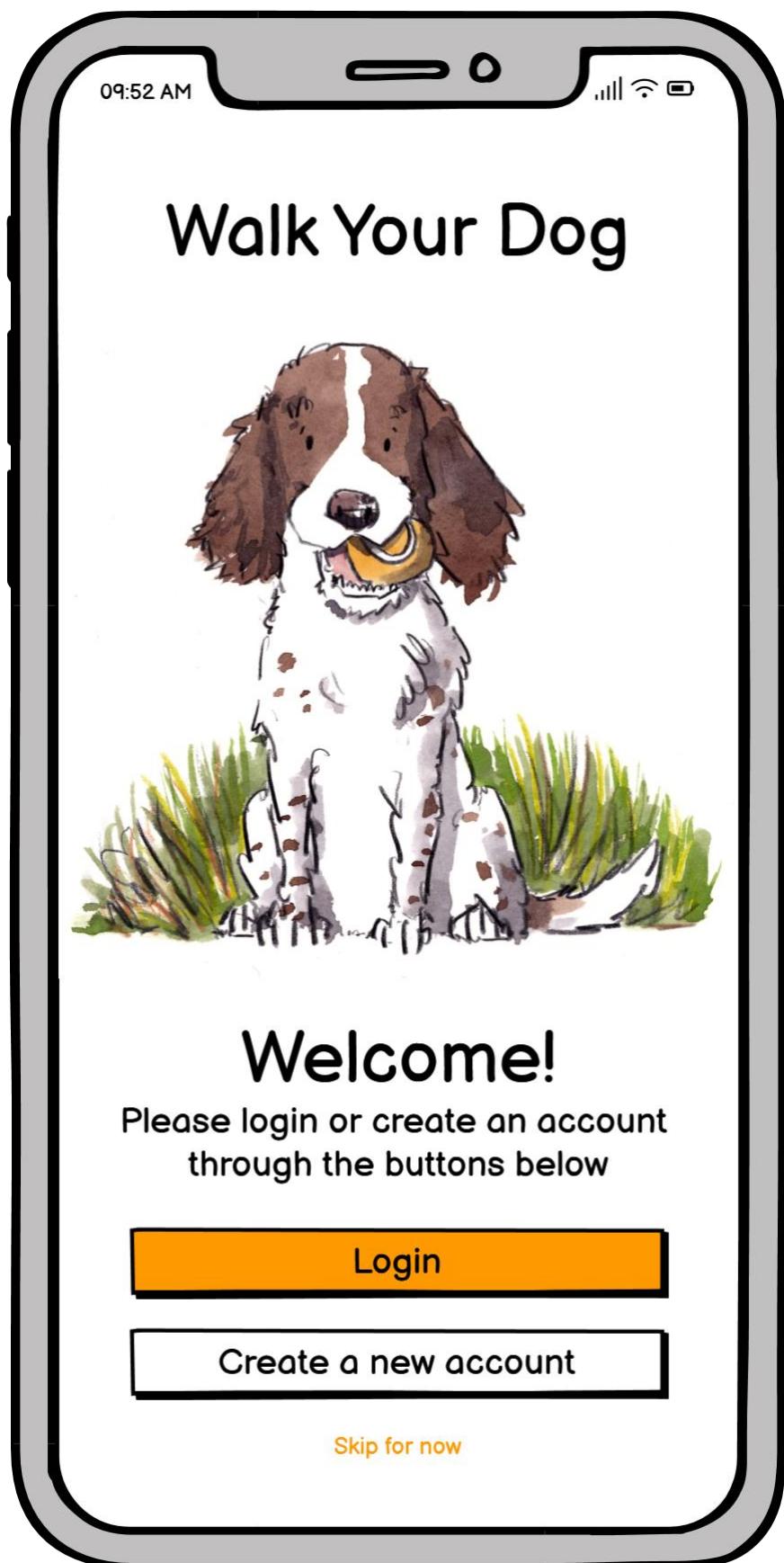
- One of the participants expressed concern about the difficulty of the concept to provide access to substantial rewards while progressing.
- Participants said we could take inspiration from the creative ideas of similar games like "PokemonGO", where camera AR technology was used in the application to enhance the user's sense of interaction, while also helping produce different ways to share and improve the spread of our app.

Results and Discussion

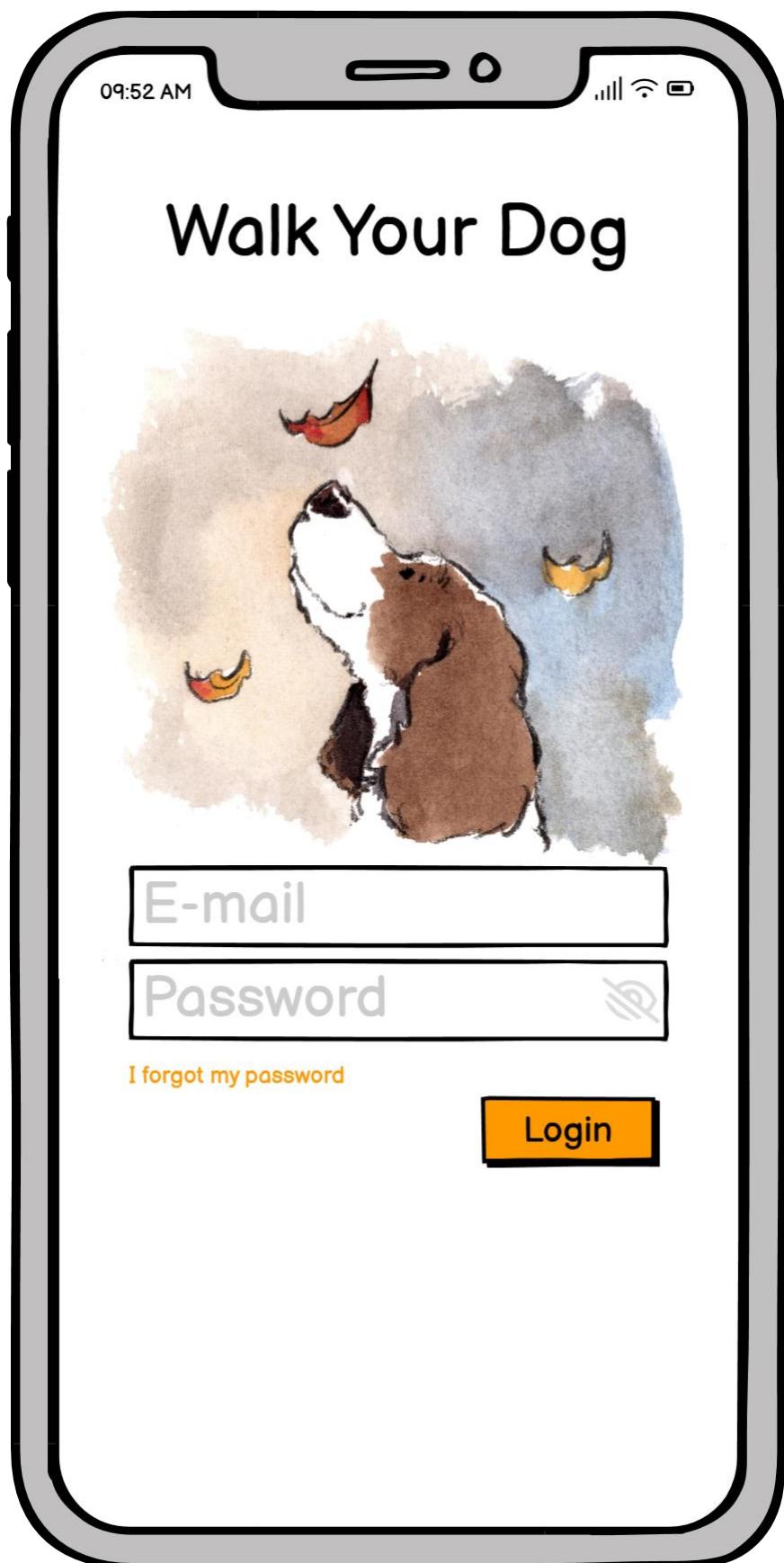
Through the four evaluation sessions, the number of positive or negative comments can visually reveal the level of the interactive interface and UI design to be improved, as well as the urgent need to iterate on the social features, absorbing the constructive ideas in the comments and accelerate the progress of improving the social features.

Among other positive comments, we can conclude that the low-fidelity prototype is attractive to users to a positive degree.

During the questioning session, we discussed improvement options for the UI design and concluded that the interactive UI design of the sunken wheel would be one of the goals for the next iteration. We then discussed the overlap between the short video audience demographic and our intended audience demographic and planned to use a questionnaire to decide whether to add social elements related to short videos in the next iteration. In the future editions, we will use more literature readings and evaluations since we need more testing. If we get positive results, we will design a new prototype with a higher fidelity to compare results.



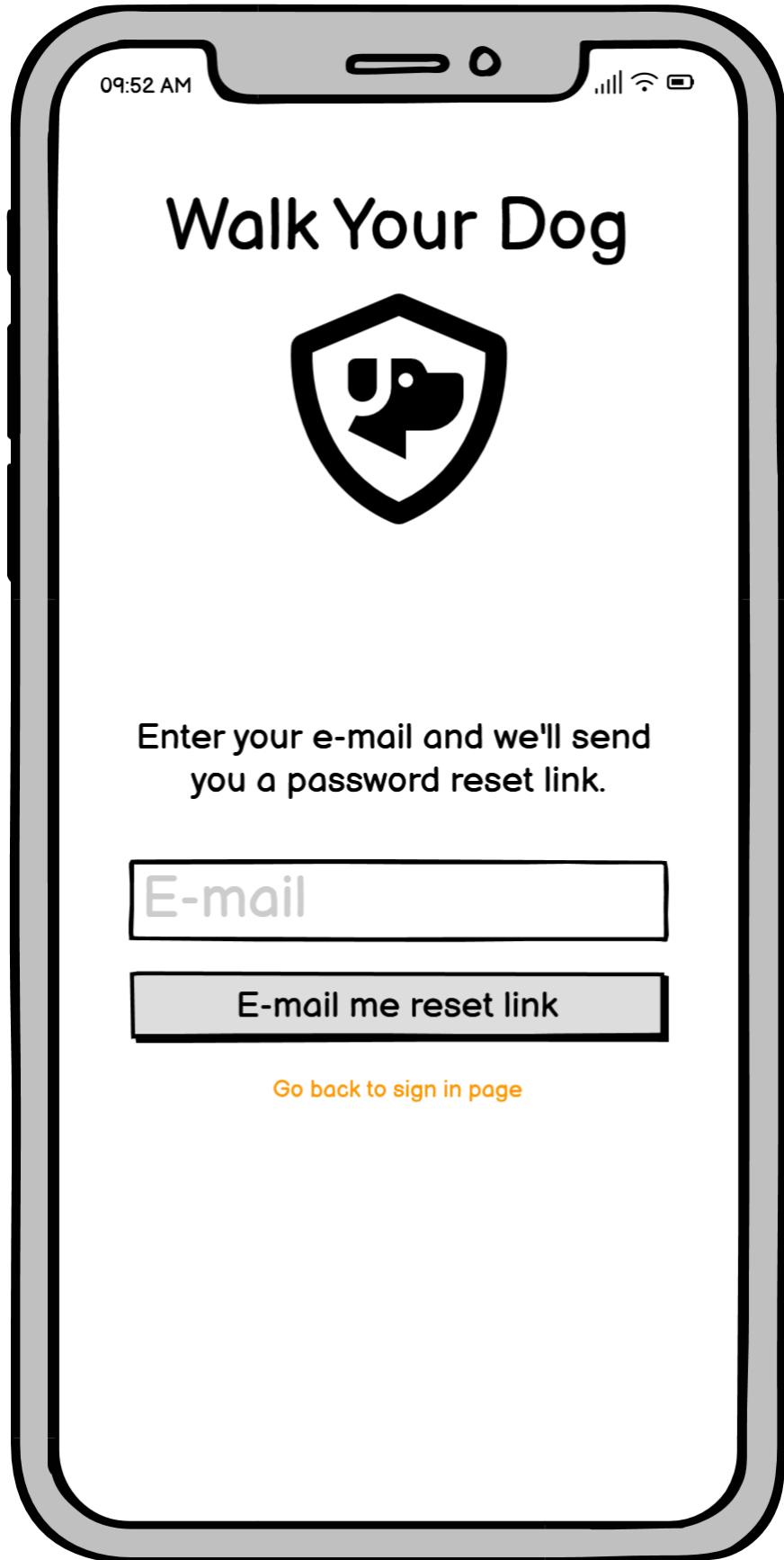
1. Login Page



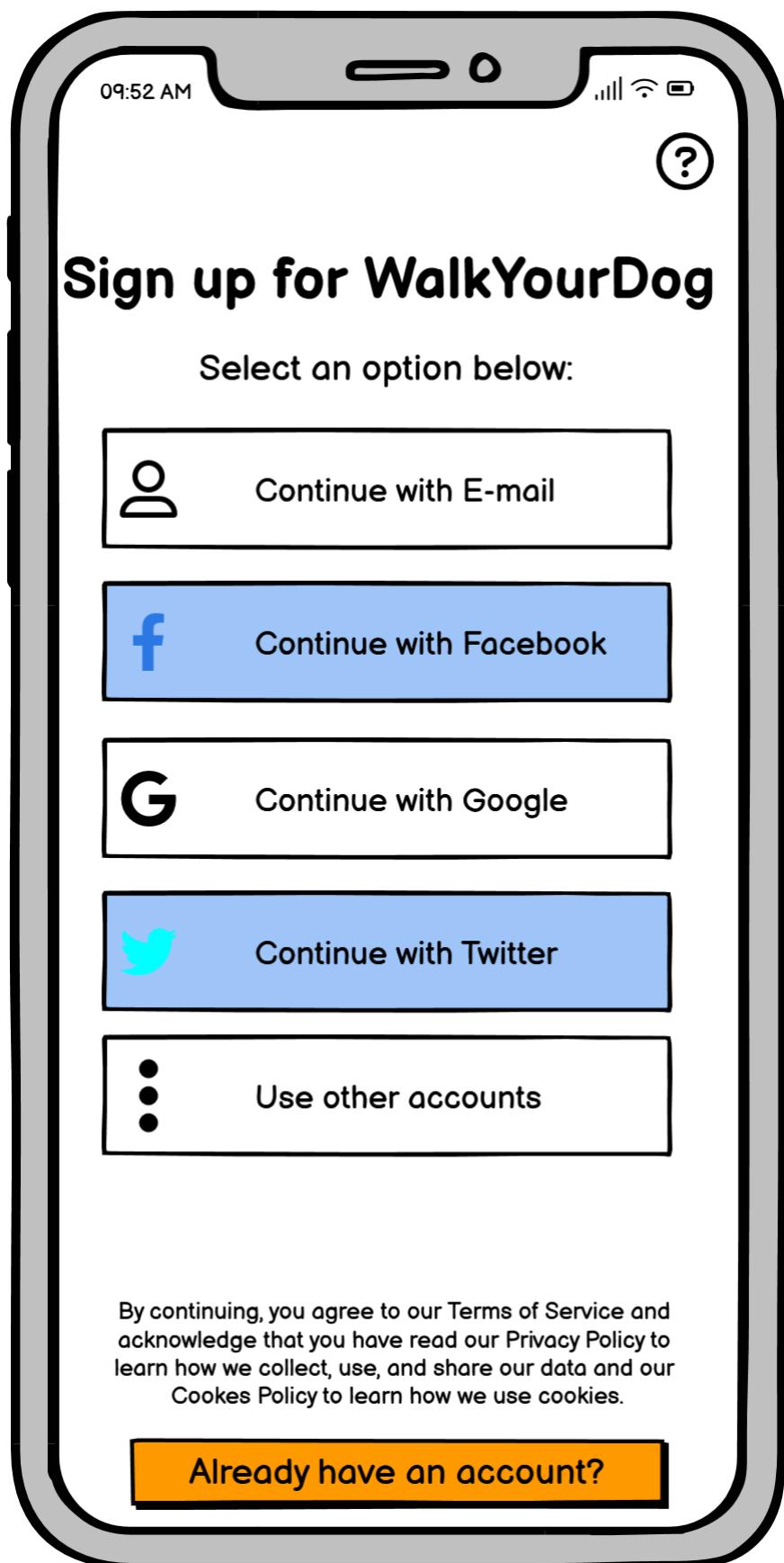
1.1 Login Page to enter the user's credentials



1.2 Login Page to enter the user's credentials with the keyboard



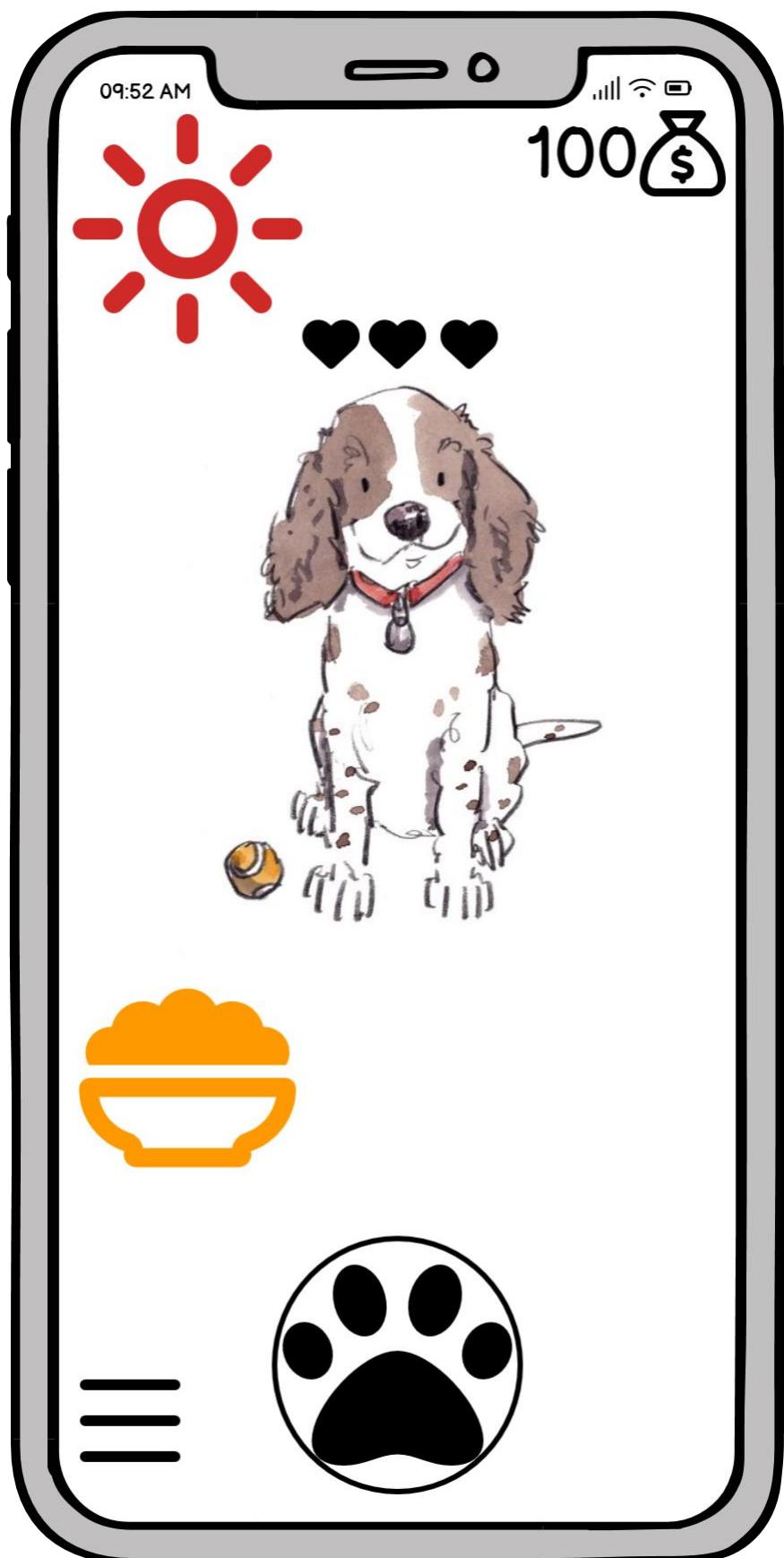
1.3 Reset the password



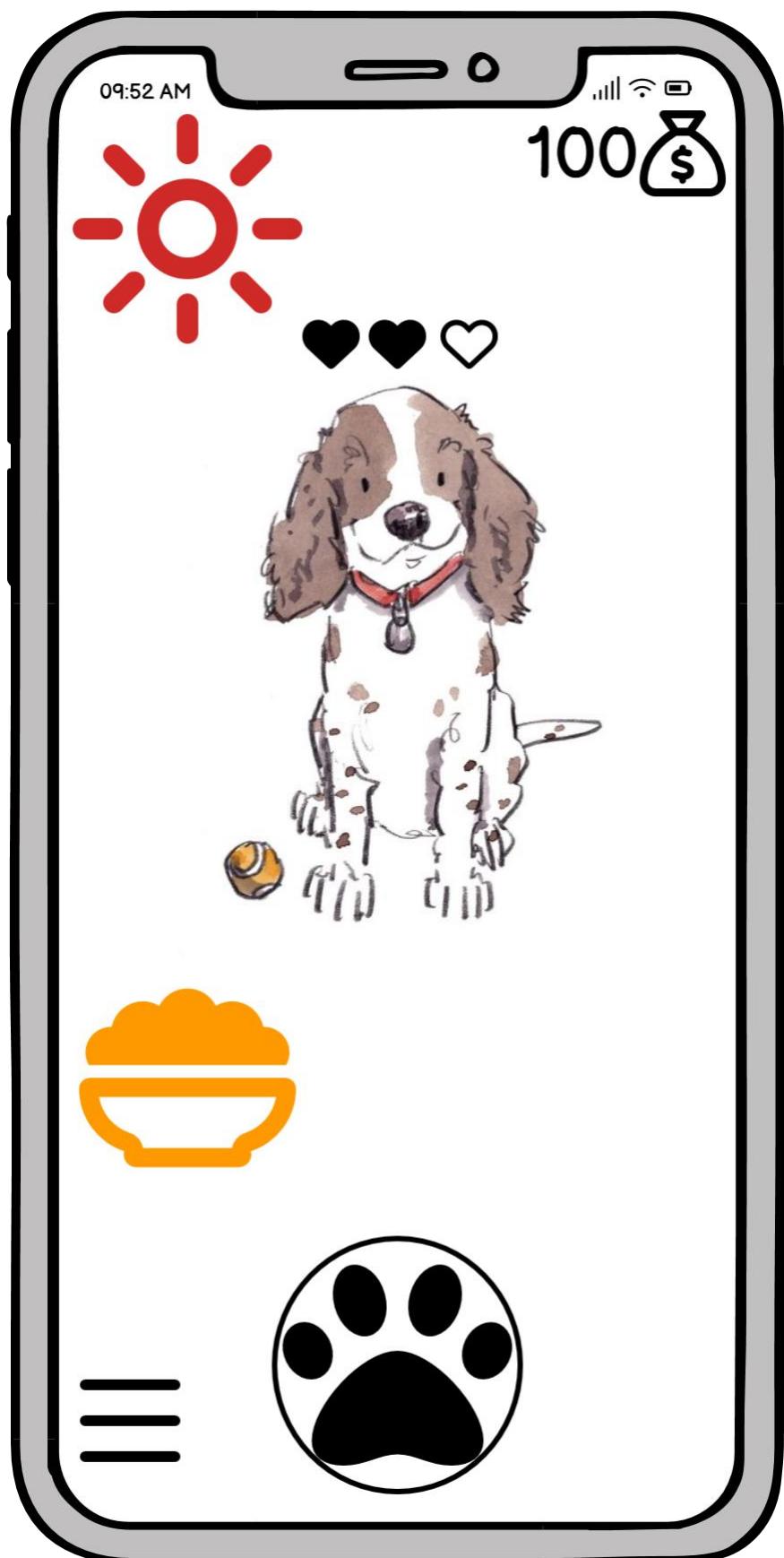
1.4 Login with the option of social accounts



2. Start Page



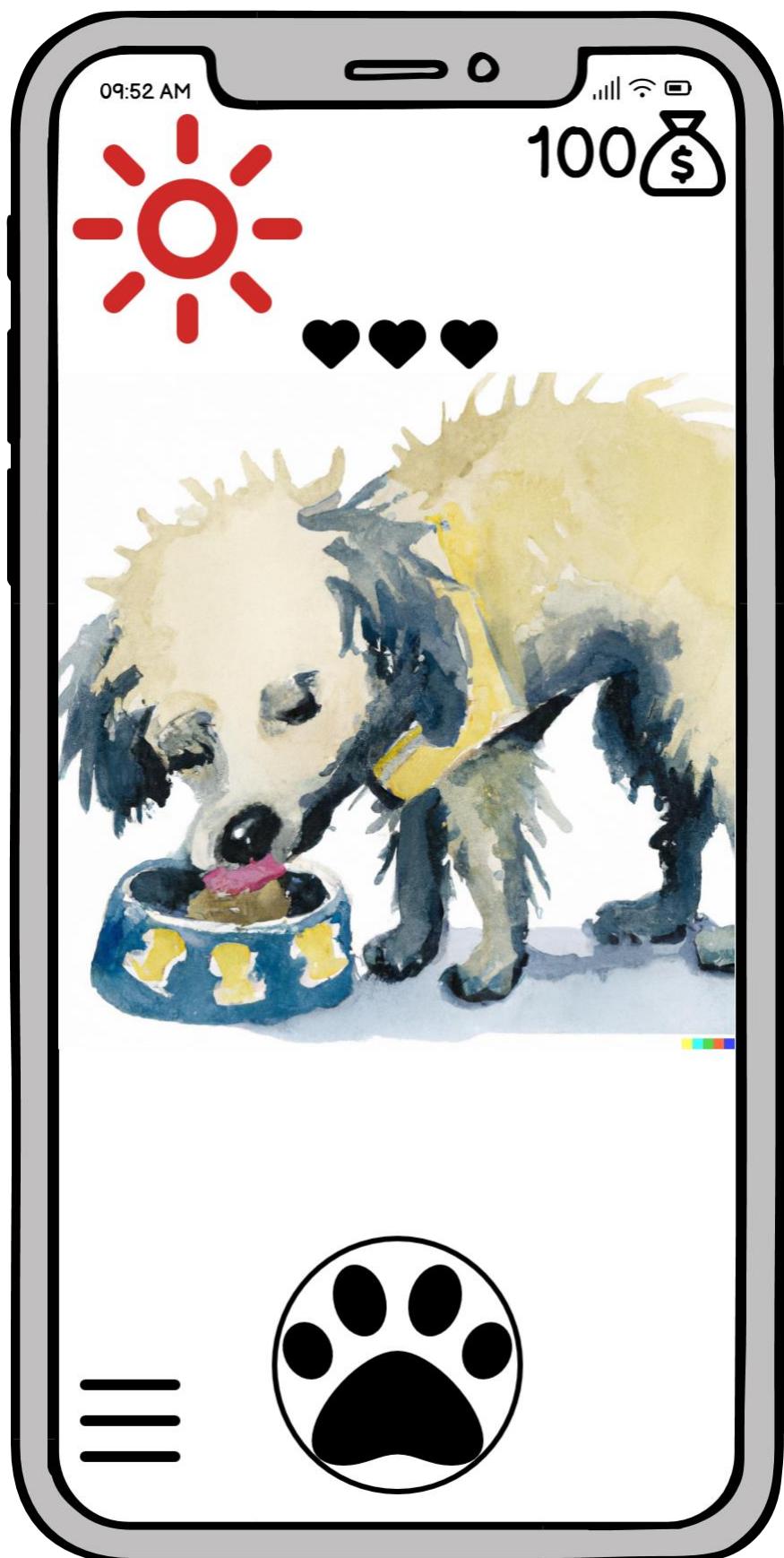
2.1 The dog has full hearts



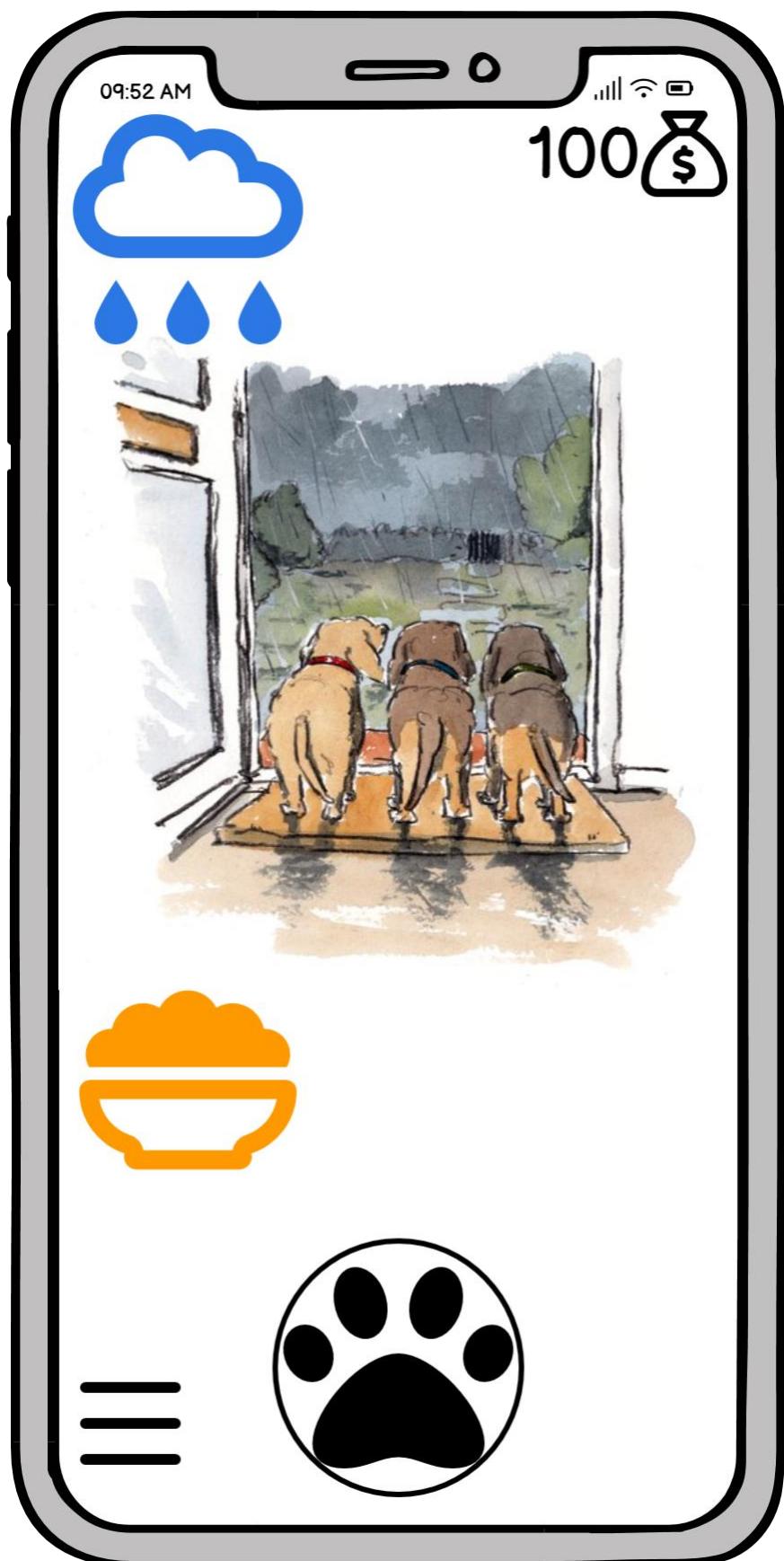
2.2 The dog has lost a heart



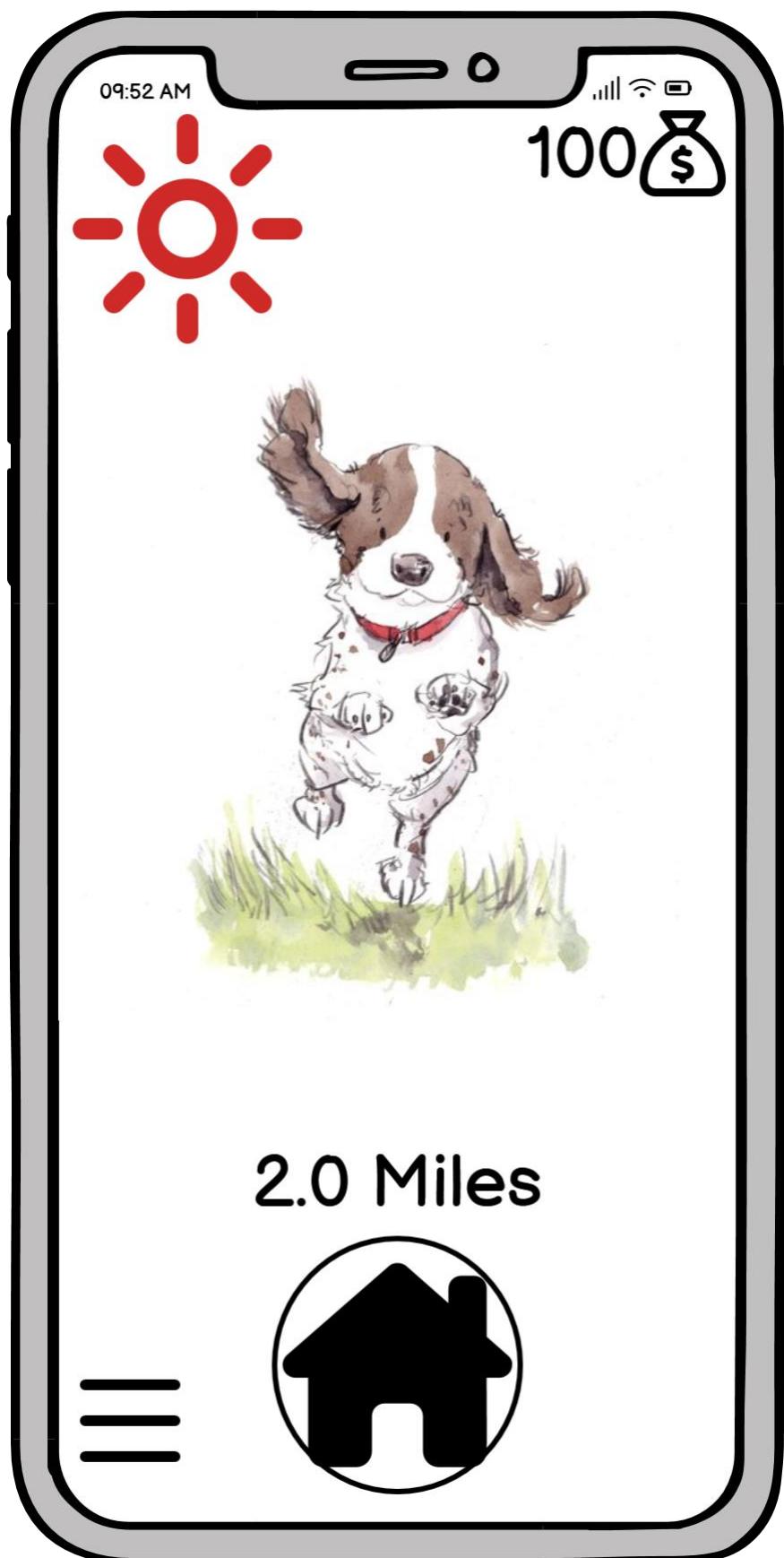
2.3 The feeding alert



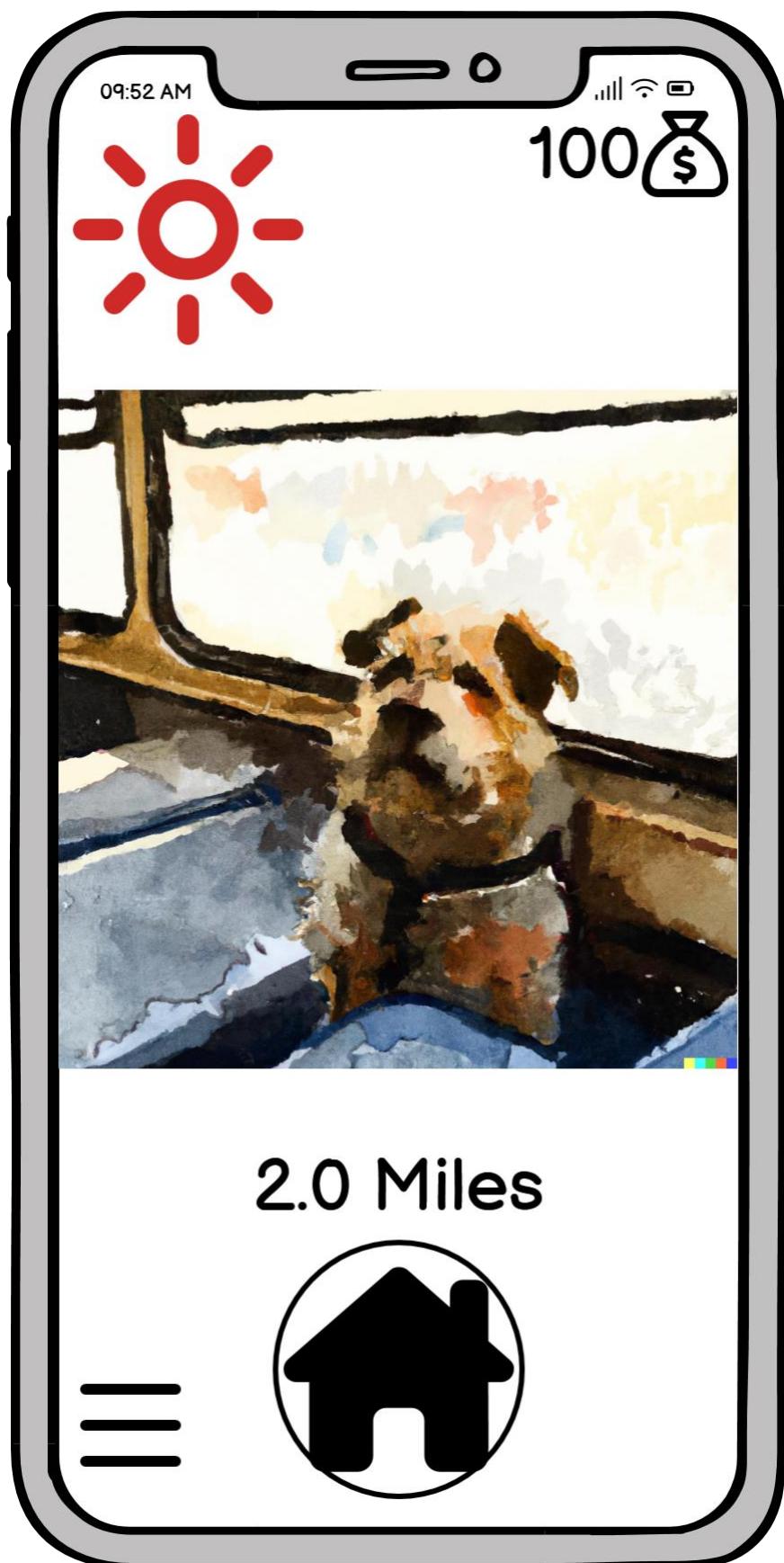
2.4 The feeding animation



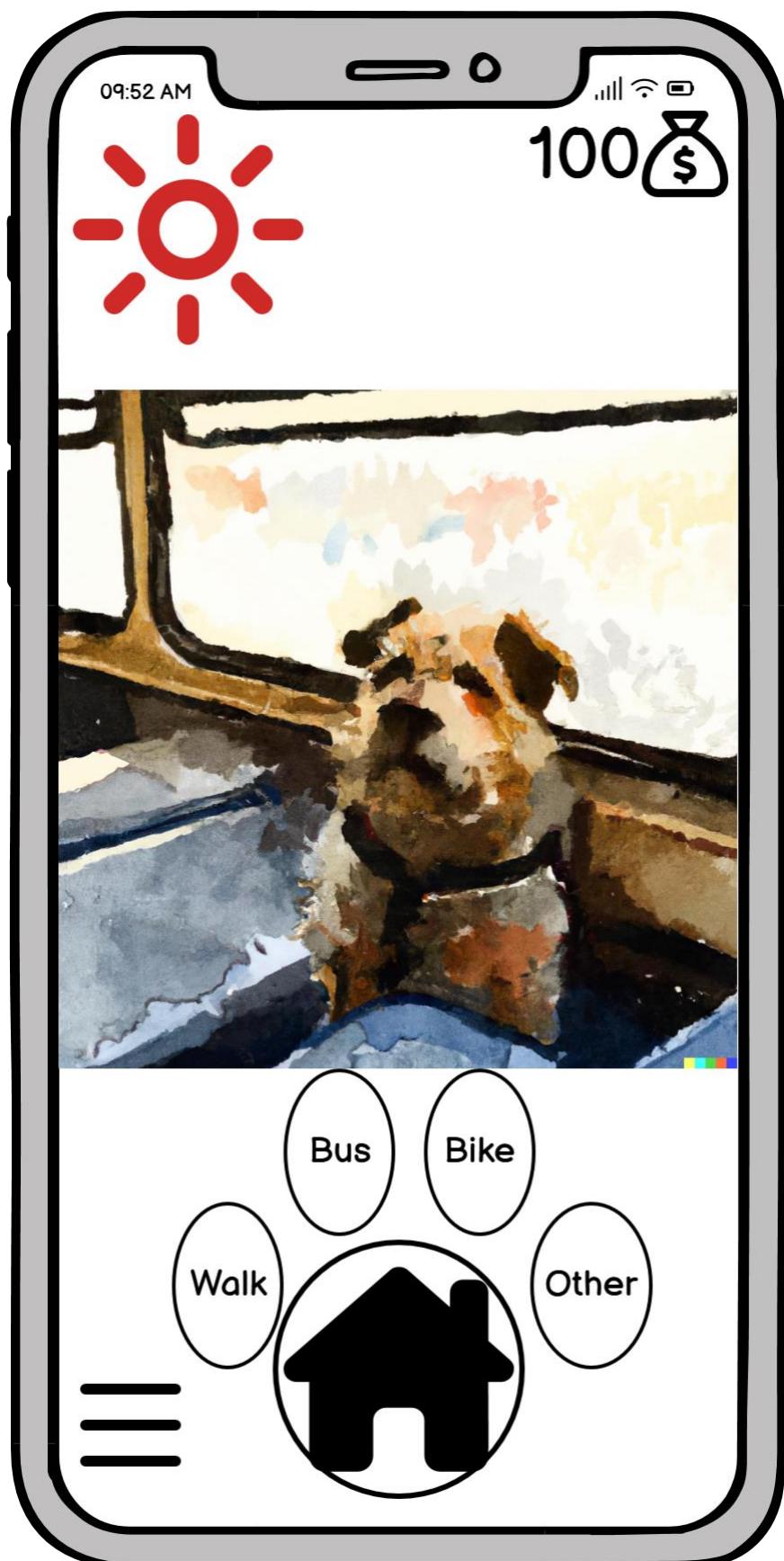
2.5 The dog will be at home on a rainy day



3. Travelling Page



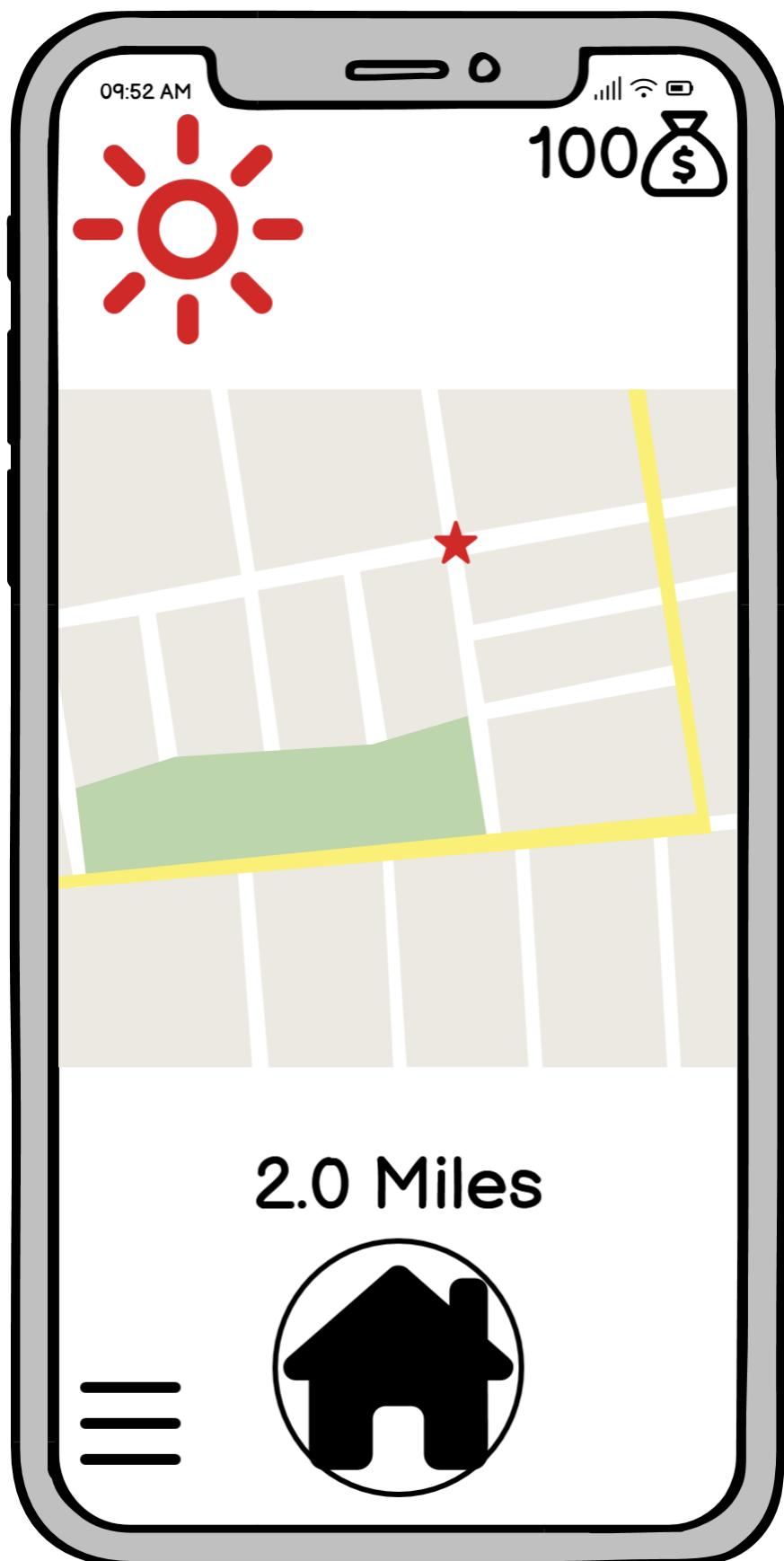
3.1 The dog on the bus



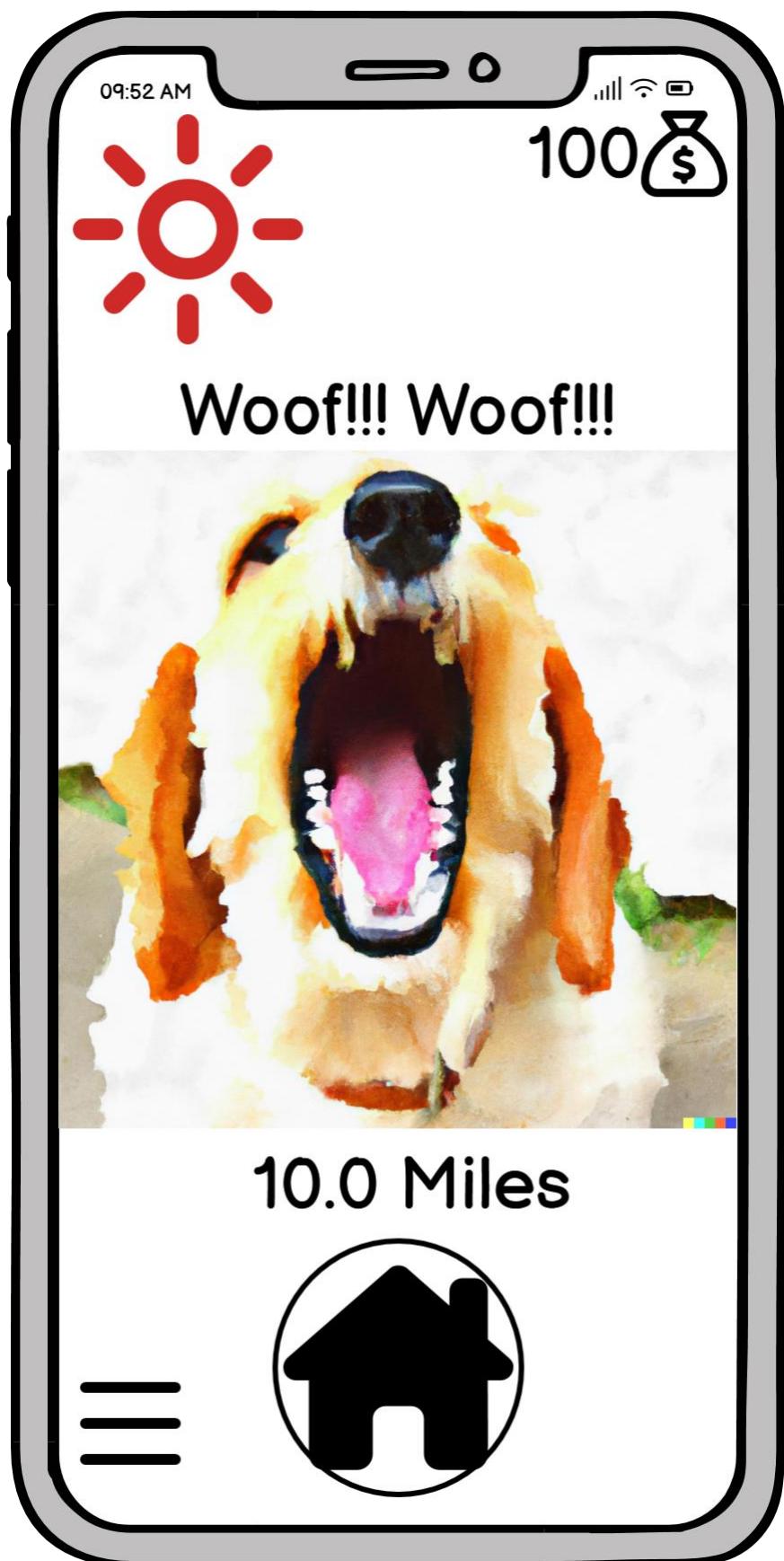
3.2 The dog on the bus with a long press on the home button to change the mode



3.3 The alert for the arrival signal



3.4 The map to choose the arrival point



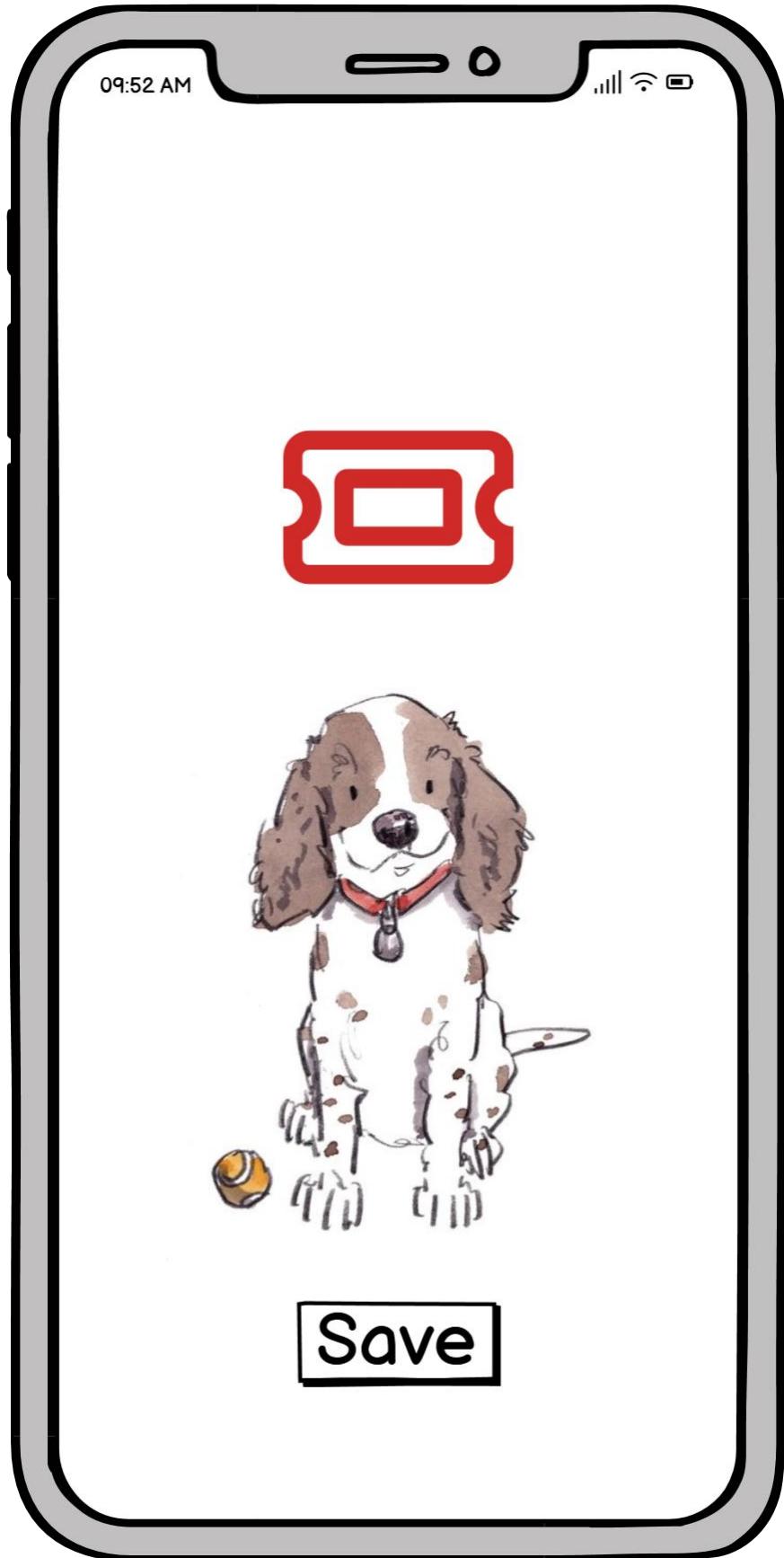
3.5 The arrival signal by the dog



3.6 The bike mode



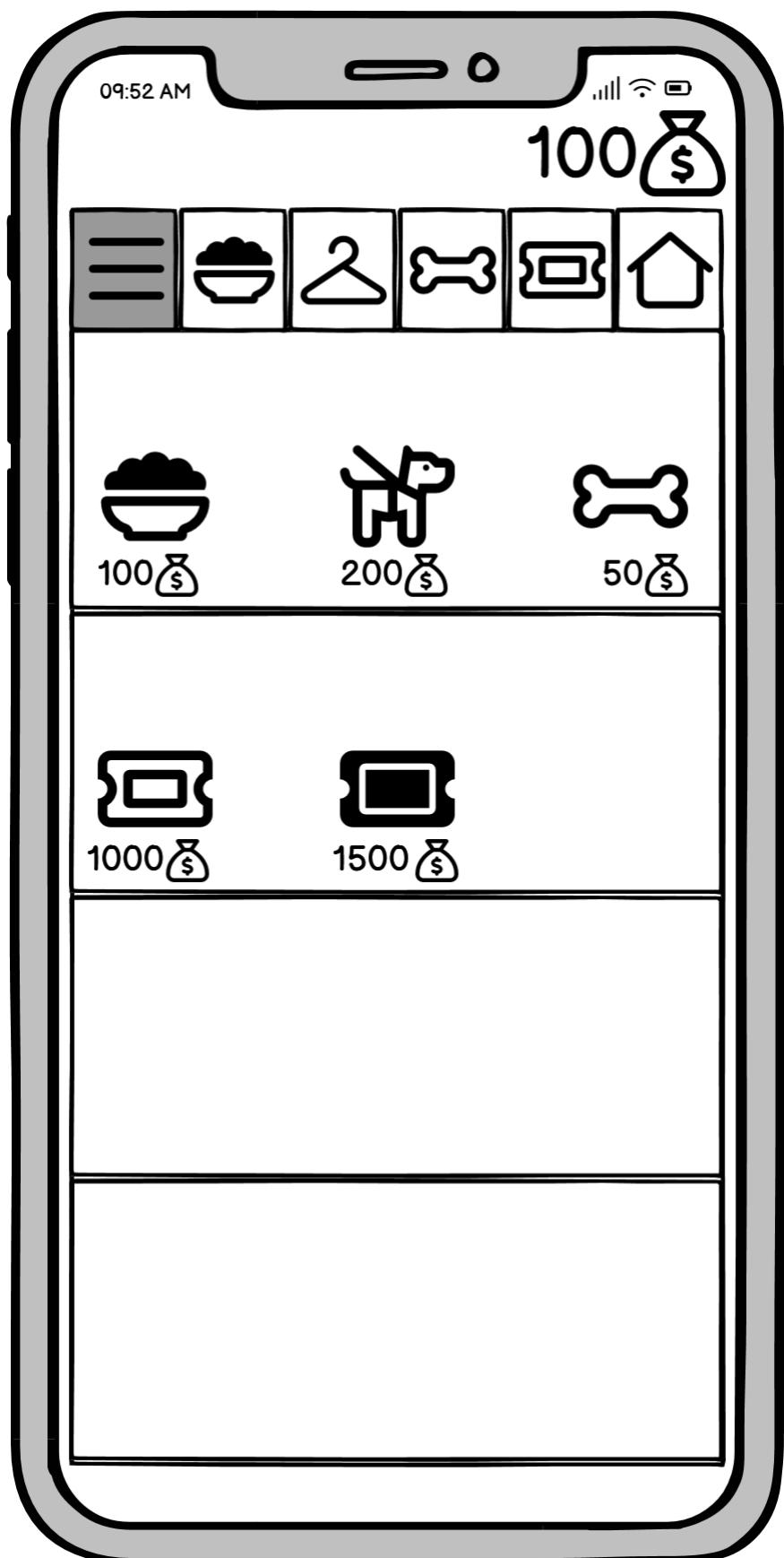
3.7 The dog brings a present after a trip



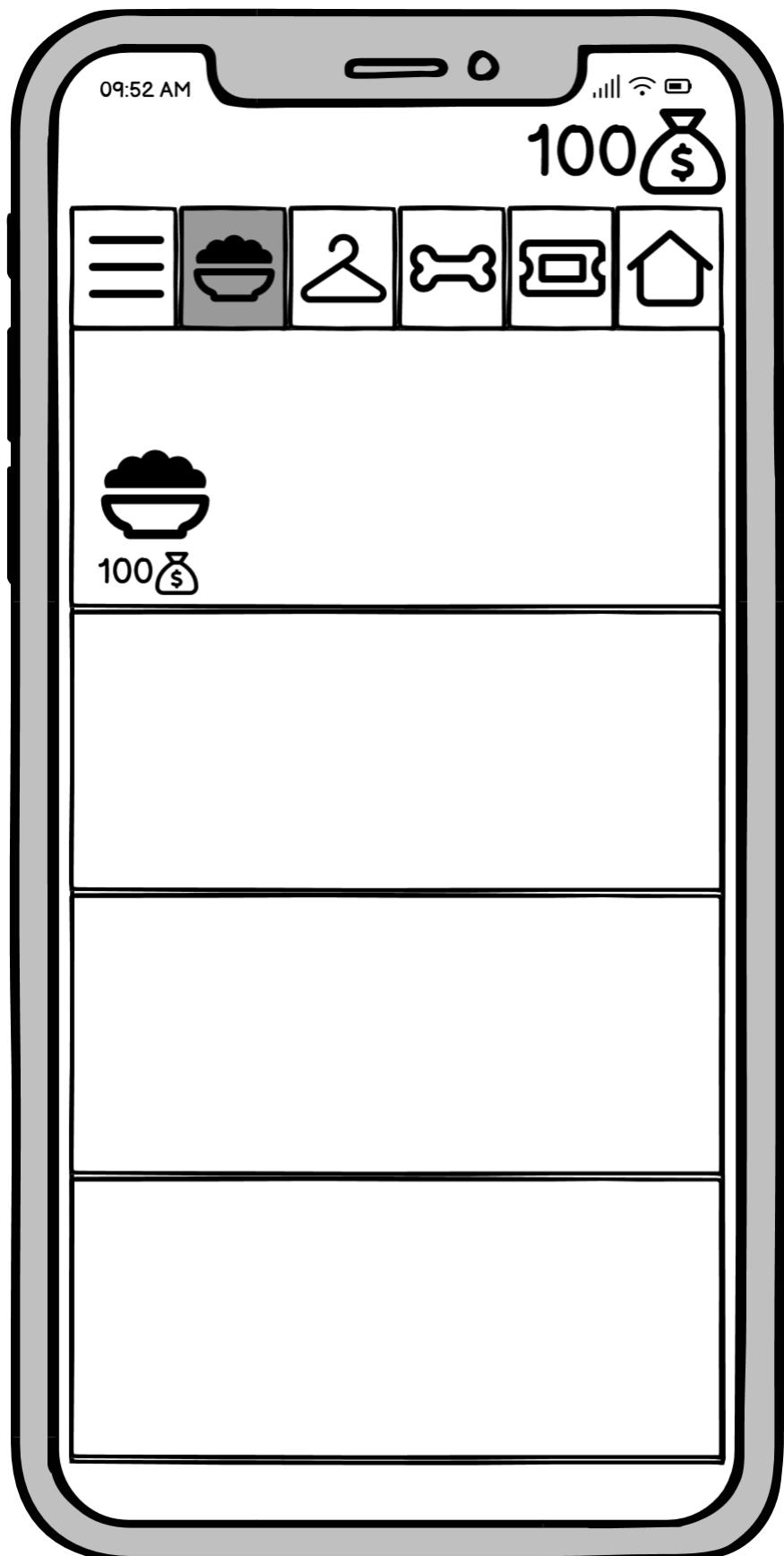
3.8 The option to save the ticket



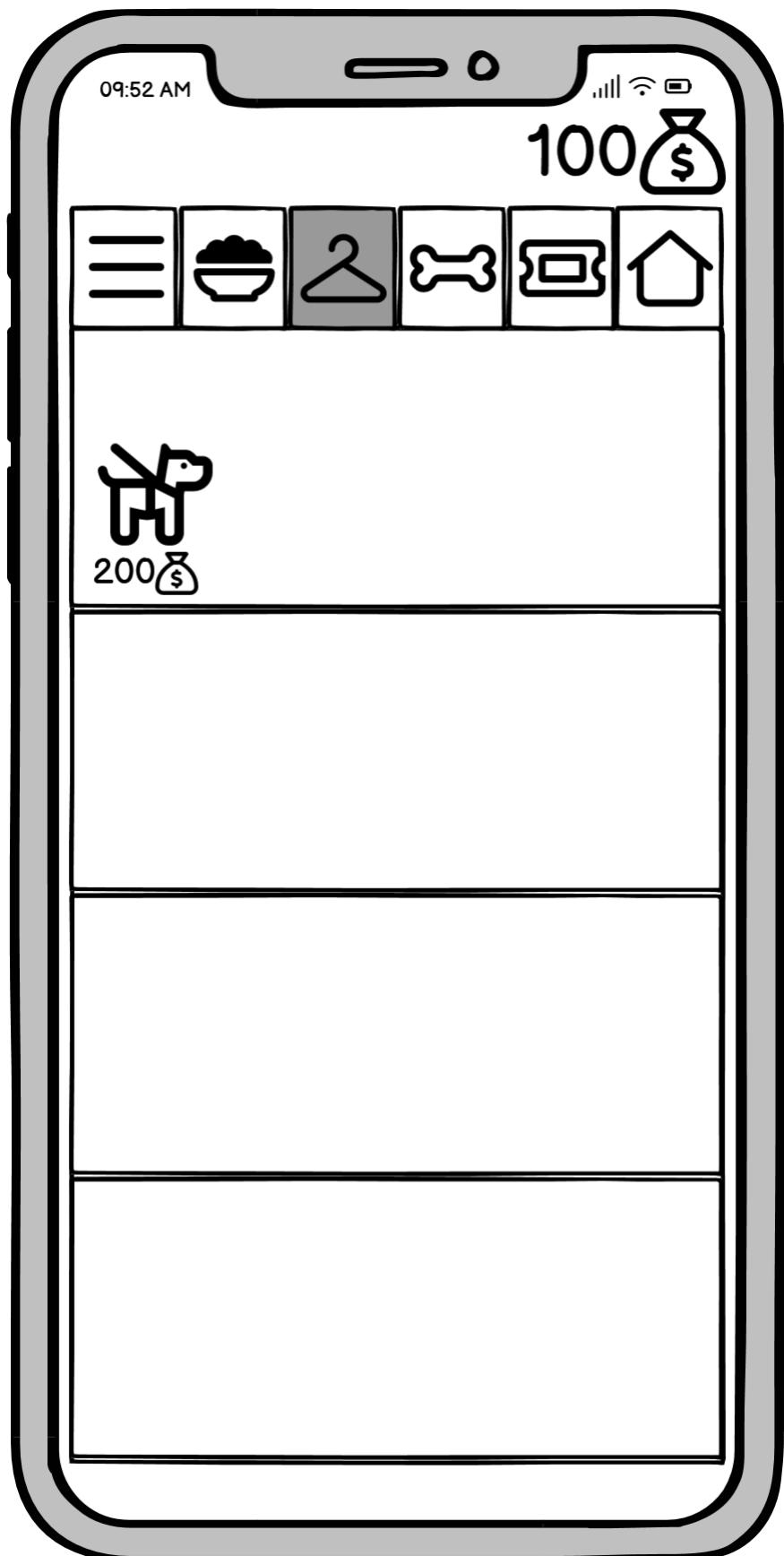
3.9 The indication of the trip reward



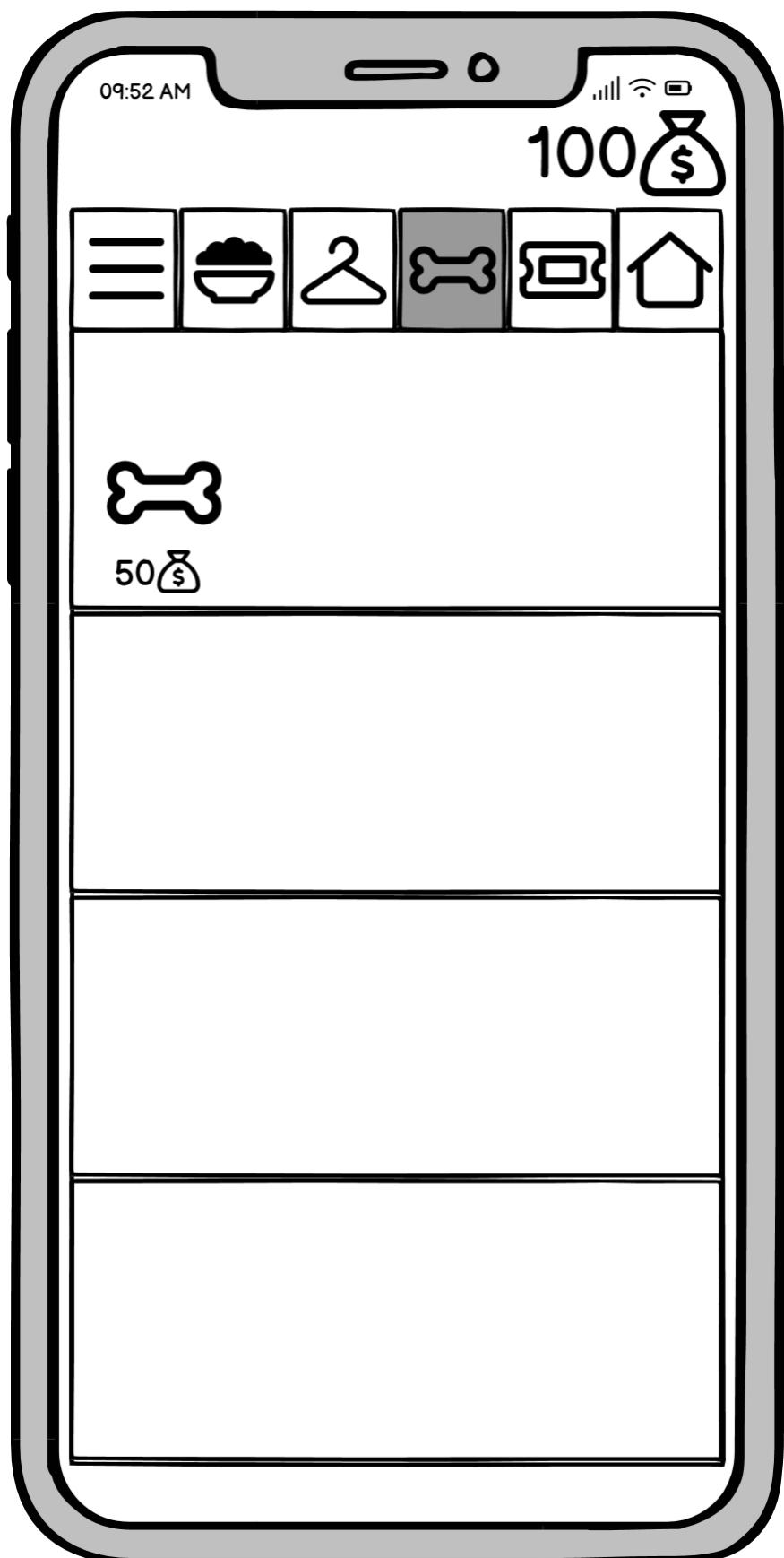
4. Store Page



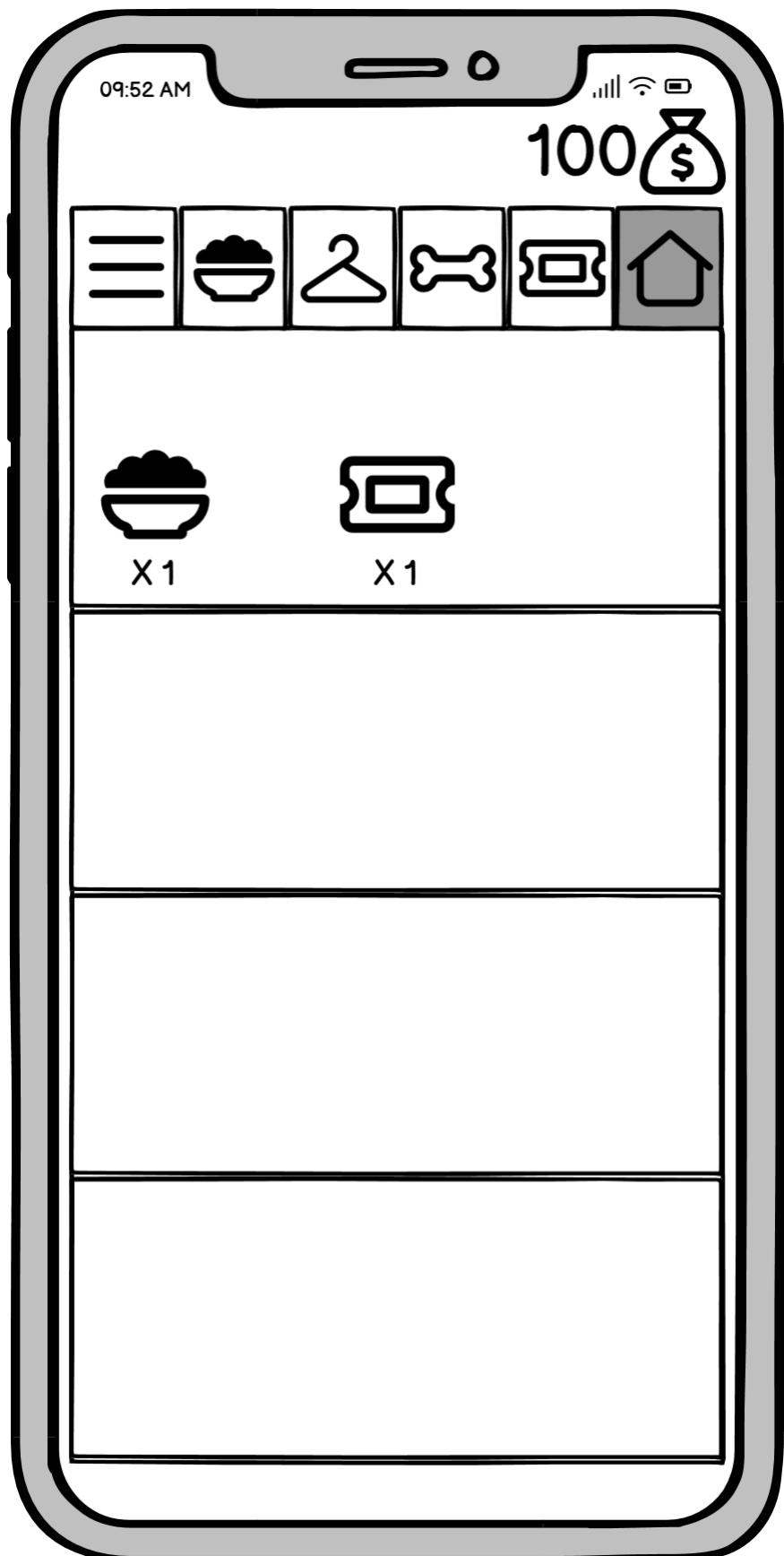
4.1 The food page



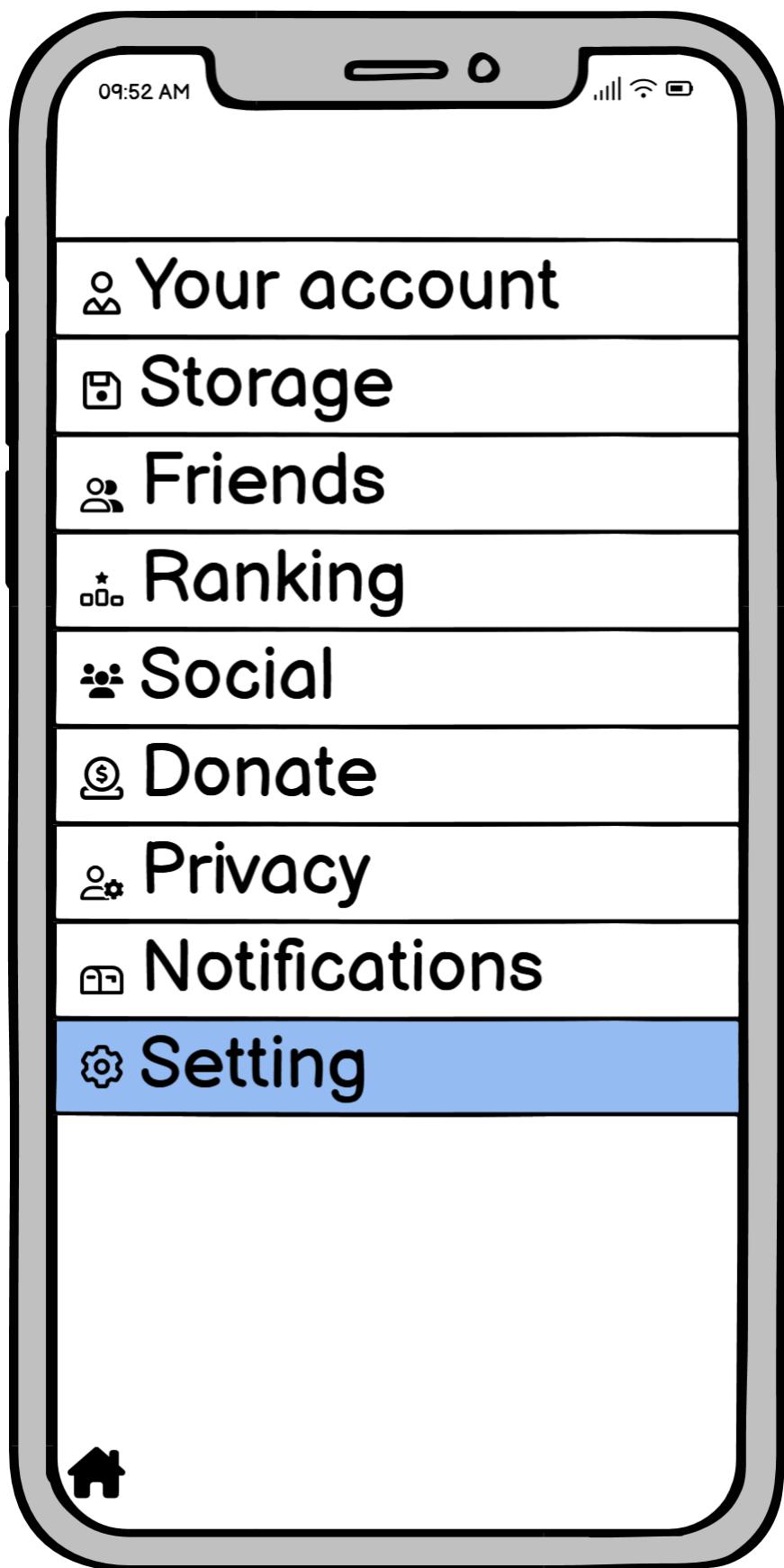
4.2 The cloth page



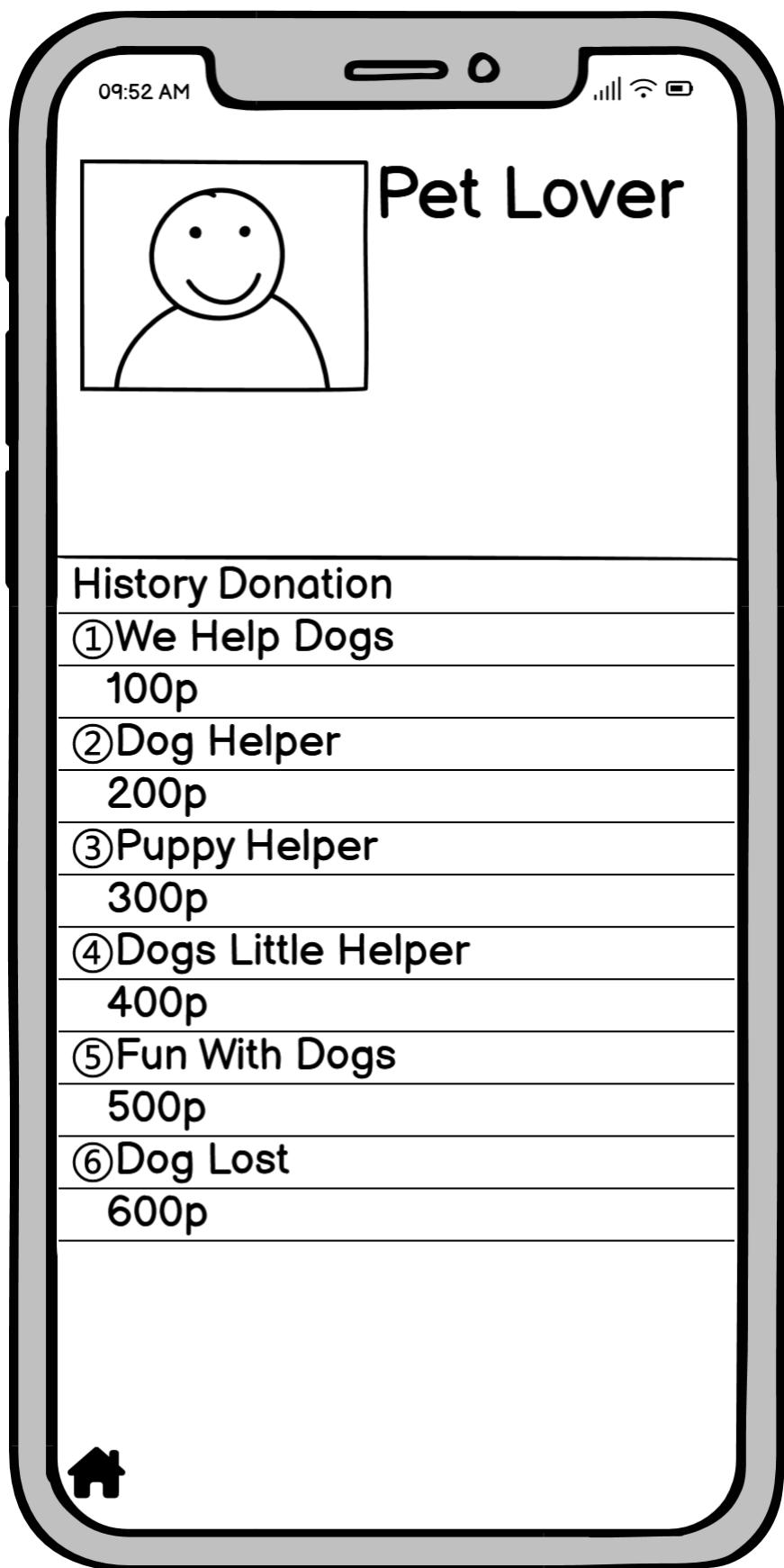
4.3 The toy page



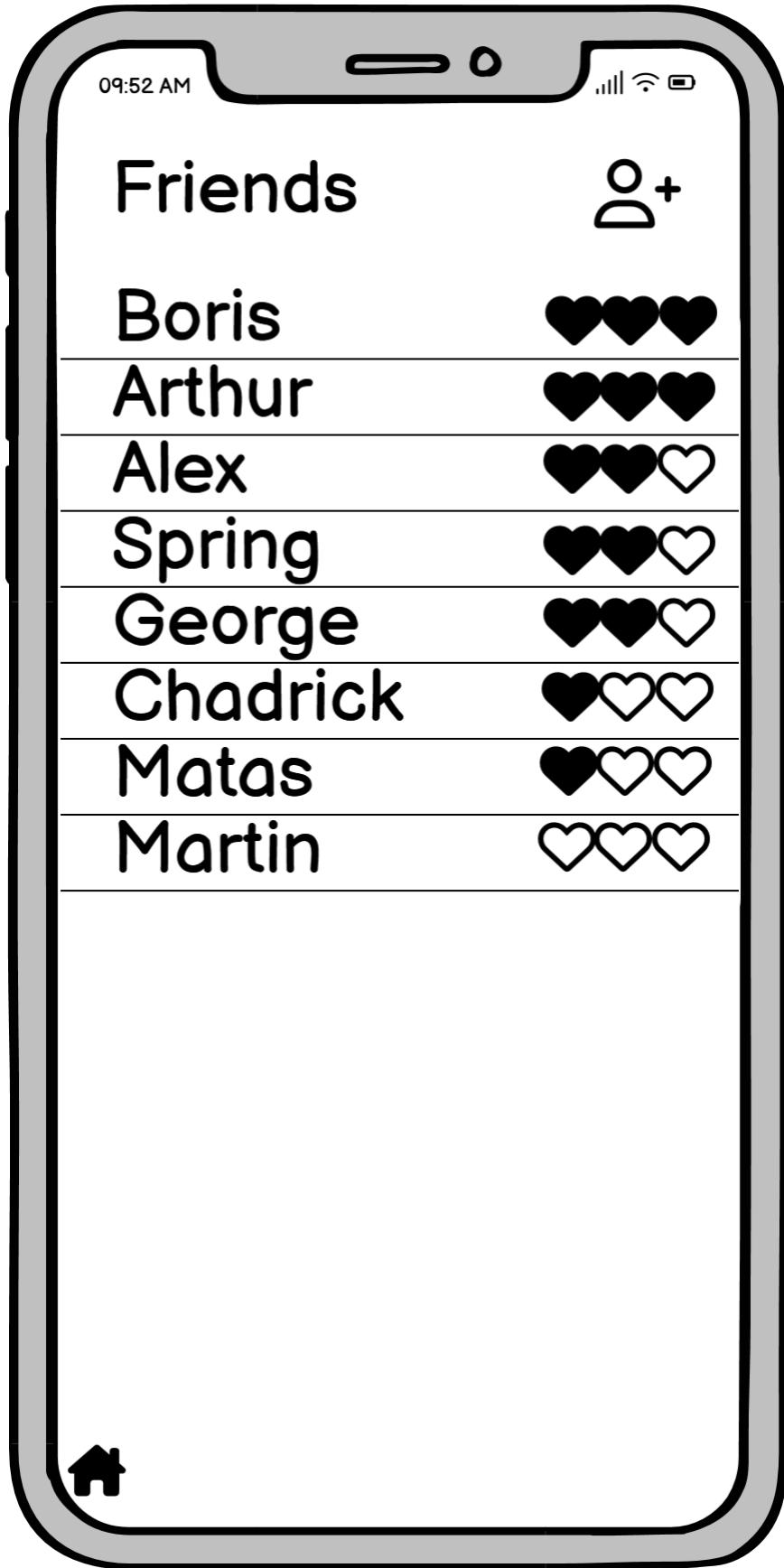
4.4 The storage page



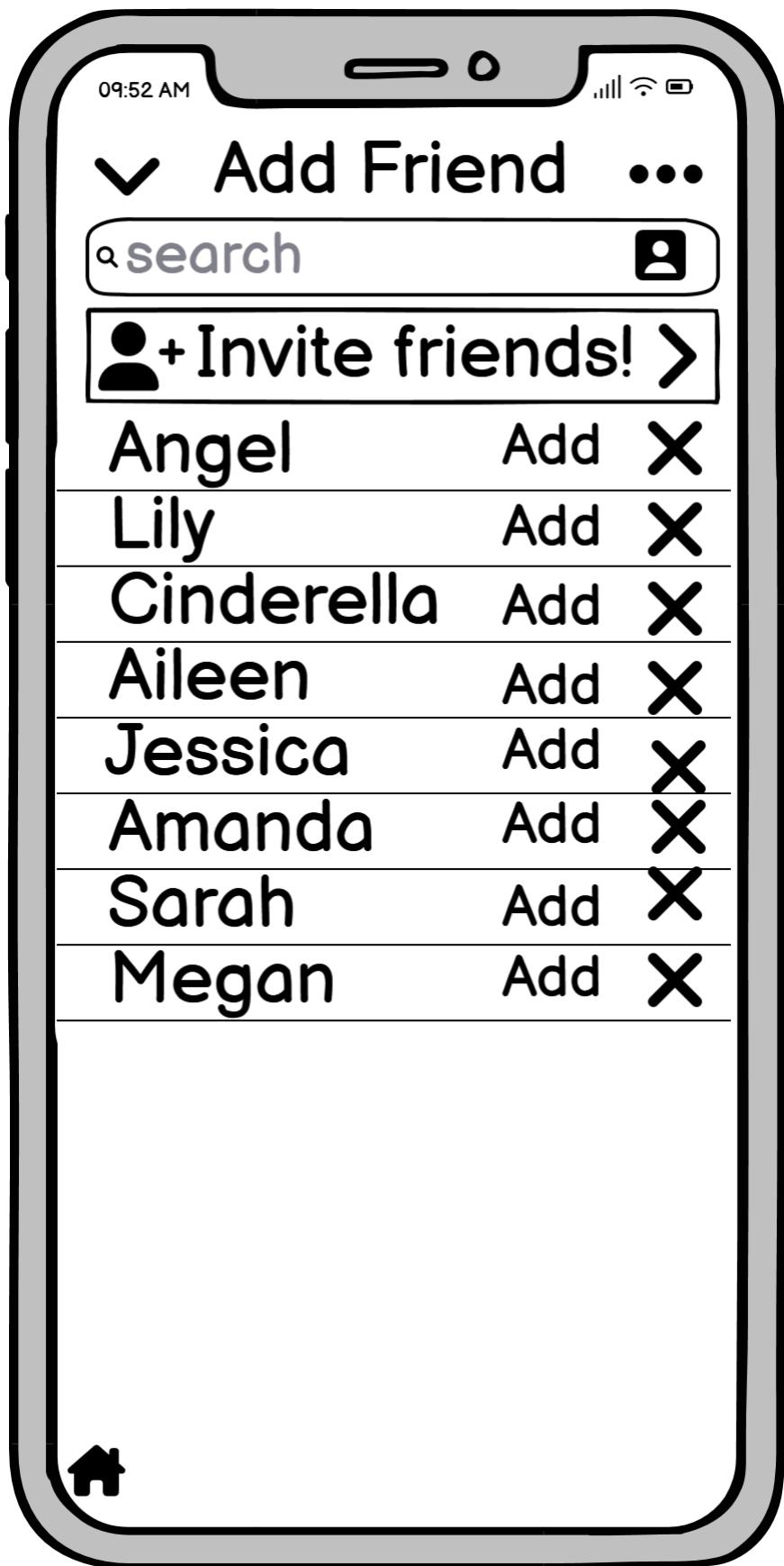
5. Setting Page



5.1 The profile page



5.2 The friend page



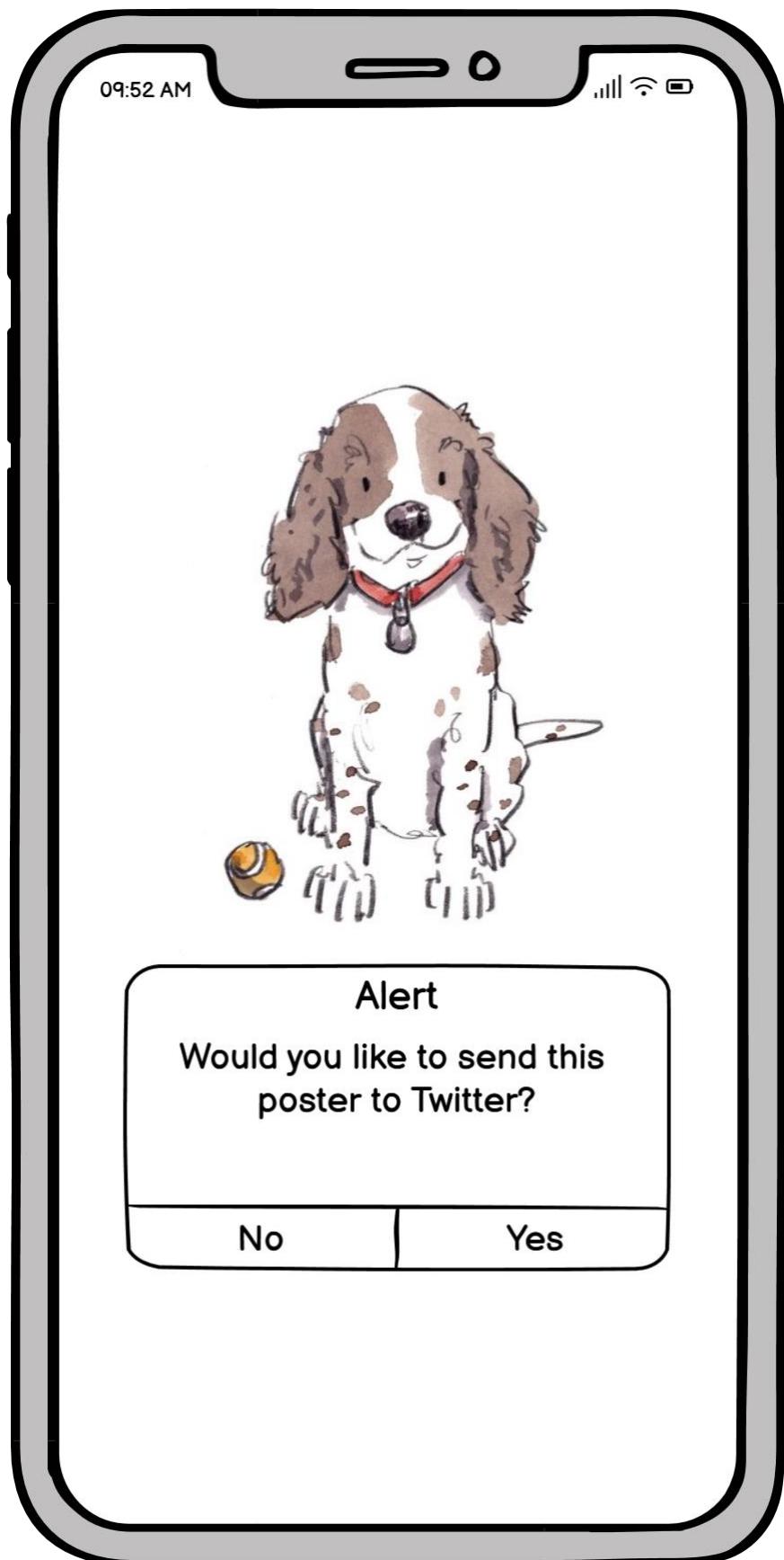
5.3 How to add a friend



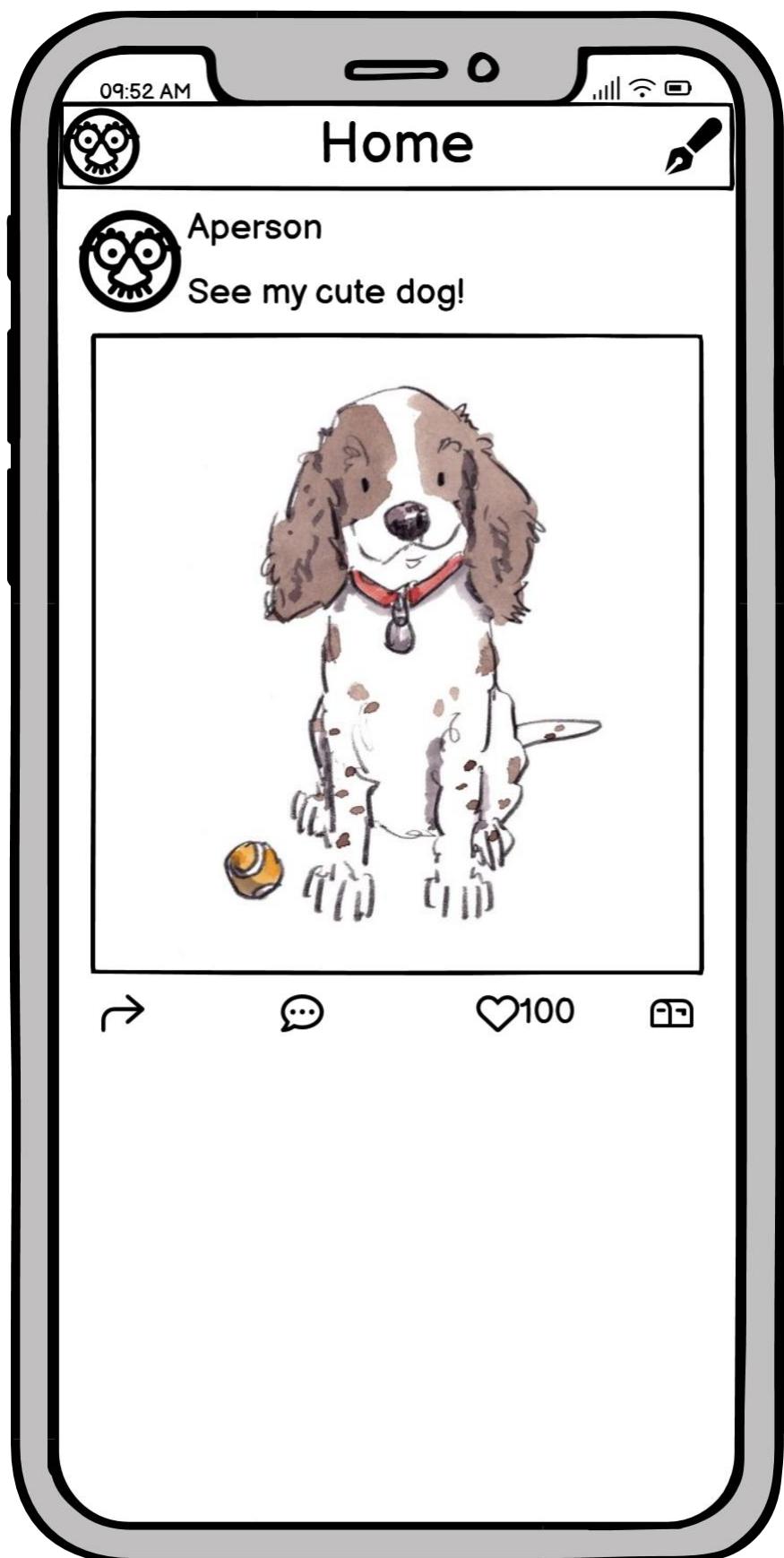
5.4 The alert for feeding the friend's dog



5.5 The linking page for the social accounts



5.6 Generate a poster



5.7 Post the poster on the social media