Team Intercontinental
Erica May
Traci Goreham
Duane Goodner

Final Demonstration

Submission Contents

1. Demonstration (pdf)
2. Link to Github repository for Pet Matcher application: https://github.com/duanegoodner/pet_searcher. Note that Dart source code files are in the lib folder and its sub-folders.
3. Link to Firebase Firestore database: https://console.firebase.google.com/u/0/project/pet-matcher-b534a/overview?pli=1
4. Link to Demonstration video: https://media.oregonstate.edu/media/t/1_mgeoe4tz

Project Status

Team Intercontinental has met all the customer requirements for the Pet Matcher application. In addition to these requirements, our team was able to implement a news feed and a favorites feature. With the favorites feature, a user can mark an animal as a favorite, and that information is saved and available each time the user accesses the application.

The status of work on each of the client requirements is summarized in Table 1 at the end of this document. As stated above, all customer requirements have been met and implemented. Please see the table below for the detailed status of each requirement.

Setting Up a Flutter Development / Testing Environment

Testing the current version of our application needs to be done locally on a machine that has a Flutter development environment set up with Flutter version 2.0.4 or higher. The specific procedure you will need to follow will depend on your operating system and whether you want to test the application on an Android emulator, an iOS simulator, or both. Android emulators can run on any of the following operating systems: Windows, Linux, and MacOS. An iOS simulator can only run on MacOS. Detailed instructions for setting up Flutter can be found at https://flutter.dev/docs/get-started/install. The key steps in this process are:

1. Go to https://flutter.dev/docs/get-started/install, and select the link corresponding to your computer's operating system. You will be directed to a page where you will need to:
   a. Follow the instructions to download and install the Flutter SDK on your computer.
   b. Follow the instructions to download and install Android studio.

c. (optional) If you are running MacOS and want to test on an iOS simulator follow the "iOS setup" instructions to install Xcode and set up the iOS simulator.
d. Follow the instructions to start Android studio and run the Android Studio Setup Wizard.
e. Skip the instructions in the "Set up your Android device" section.
f. Follow the instructions in the "Set up the Android emulator" section. We recommend setting up a Pixel 4 emulator with API 30. **Warning (**courtesy of CS 492 instructors)**:** Setting up an Android emulator will require you to enable VM acceleration on your computer. Doing this may break existing VirtualBox and VMWare installations unless you are using the latest versions of VirtualBox or VMWare.

2. Proceed to https://flutter.dev/docs/get-started/editor where you can find instructions on how to set up an editor. Choose the link for VS Code, and follow the enclosed instructions.

Downloading and Running the App

Once you have your Flutter development environment set up, you are ready to download and run our application. To do this:

1. Fork or clone a copy of Github repository https://github.com/duanegoodner/pet_searcher to your local machine.
2. Open the root level directory of the project with VS Code, and open file main.dart.
3. Go to https://flutter.dev/docs/get-started/test-drive?tab=vscode. Skip the instructions in the "Create the App" section, and follow the instructions in the "Run the app" section to start the app in either an Android emulator or an iOS simulator.

Instructions for Testing and Navigating the App

Upon opening the app in an emulator or simulator, the user will see a landing page. From the landing page, the user has the option to log in or create a new account.

Test Case 1: Logging in and navigating as an admin user

- From the Pet Matcher Landing Page, click on the "Log in" button to navigate to a screen containing input boxes for user email and password. Enter the following information:
    - Email: jane@gmail.com
    - Password: jane1234
- Click the Login button. If the email and password are correct, the user will be directed to the admin homepage.
- In the upper left corner of this page, a menu icon can be tapped and a drawer menu will be displayed. This menu has options for the user to navigate to the following pages:
    - **Home**: This is the same admin home page that appeared upon login.

- ○ **News Feed**: This screen contains news and advice articles.
- ○ **Inventory**: A scrollable listview containing photos and summary information for each animal in the database.
  - ■ The top of this page contains an animal filter form. Animal criteria can be selected from the dropdown inputs of the form. The "breed" field does not become active until an "Animal type" has been selected. Clicking on a particular animal in the scrollable listview will take the user to a page with detailed information for that animal.
- ○ **Add a New Animal**: This form allows the administrator to select a type of animal to add to the database.
  - ■ Upon selecting an animal type, a screen that allows an animal photo to be selected from the photos on your phone is displayed. If you are using an iPhone simulator, this screen should provide some default images, and you can choose any one of these images. If you are using an Android emulator, you will not have any default photos available, so you can just select the "photos" icon to navigate to an empty "Select a photo" screen, and then click on the back arrow.
  - ■ After a photo (or the back arrow on Android) has been selected, the user is taken to a screen with a form where other animal data can be entered and uploaded to the database.
- ○ **Reset Animal Options**: This feature was added for database development work. Selecting this option uploads some json data from our assets folder to a Firebase document. It will not have any impact on the front-end user experience and will not be part of the final application.
- ○ **Log out**: The user is logged out, and the app returns to the Landing Page.

Test Case 2: Logging in and navigating as a general user

- ● From the Pet Matcher Landing Page, click on the "Log in" button to navigate to a screen containing input boxes for user email and password. Enter the following information:
  - ○ Email: tom@gmail.com
  - ○ Password: tom1234
- ● Click the Login button. If the email and password are correct, the user will be directed to the general user homepage (titled "Find a Match!" in the app bar).
- ● In the upper left corner, a menu icon can be tapped and a drawer menu will be displayed. This menu has options for the user to navigate to the following pages:
  - ○ **Home**: This directs the user to the same admin home page that appeared upon login.
  - ○ **Search Animals**: Clicking on the magnifying glass icon results in a pop up search window being displayed on the screen, and allows the user to select the type, breed, disposition, gender, and age of the animal desired.
  - ○ **News Feed**: This screen contains news and advice articles.
  - ○ **Favorites**: Displays a list of the animals the user has selected as a favorite.
  - ○ **Log out**: User is logged out, and the app returns to the Landing Page.

- The User homepage also contains a horizontal menu bar with various search related icons. These icons will allow the user to navigate through the application to the various pages.
- The body of the User homepage contains sections that allow the user to navigate to the animal search, news feed, and favorites pages.

Test Case 3: Creating a new user

- From the Pet Matcher Landing page, select the "Create Account" text to navigate to a page containing a form for new user information
- Enter information for the new user's first and last name, city, state, and postal code. Enter an email address and a password (must be at least 6 characters).
- If you are creating an admin account, select the "I am a shelter admin" box. Otherwise, leave this field blank. Note: As a "stretch" goal, we plan to remove this option, and only allow admin users to be created by another (already logged in) admin.
- Click on Submit. If valid information has been entered in all fields, a new user will be added to the database, and the application will navigate to the Login Screen.
- To verify that the newly created account is active, you can log in using the same email and password information provided in the previous step.

Additional information:

- If a user quits the application while logged in, the next time they start the application, they will be directed to their homepage (either admin or general user) instead of the application Landing Page.

App Features/Highlights Outside Client Deliverables

- The news feed features the ability to share the article via email or text by clicking on the share icon in the lower right hand corner of a news item.
- Through our use of the Firebase auth package, we were able to create a login experience where users are "remembered" and required only to login once (unless the user explicitly logs out).
- A user can favorite an animal which is then viewable on the user's matches list.

Table 1: Status of work on client deliverables

	Description	Status
1	Supports accounts and login. Should allow for administration and public accounts.	Accomplished
2	A shelter needs to be able to create new "dating" profiles, with type of animal, breed, disposition, picture, availability, news item, and description.	Accomplished
3	Users can browse profiles to find a pet, or search by type, breed, disposition, or date created	Accomplished
4	Animal types include dog, cat, and "other".	Accomplished

5	The application must support sorting.
	   a) Selecting "dog" should make only dog breeds selectable options under "breed"
	   b) Selecting "cat" should make only cat breeds selectable options under "breed"
	   c) Selecting "other" should make only "avian," "rabbit," "reptile," "guinea pig," or "rodent" selectable options under "breed."
		Accomplished

6	Breed options must include the most common ones plus "other"	Accomplished
7	Disposition descriptions are checkboxes that include "Good with other animals", "Good with children", "Animal must be leashed at all times".	Accomplished **Note: We did exercise some creative license and used multi-select "chips" instead of checkboxes for selecting the disposition
8	Availability options include "Not Available", "Available", "Pending", and "Adopted".	Accomplished
9	Administrators can post news items. A "News Item" is just a news/PR blurb. Desired future functionality (stretch requirement) includes updating news items to send current news and the image of the animal to the Daily news feed queue.	Accomplished
10	Profiles can be removed when the animal is picked up.	Accomplished
11	The application should have a landing page.	Accomplished

References

Code References:
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https://stackoverflow.com/questions/51694677/user-specific-favorites-with-cloud-firestore
https://firebase.flutter.dev/docs/auth/usage/
https://pub.dev/packages/image_picker
https://pub.dev/packages/share
https://flutter.dev/docs/cookbook (This documentation provides many different code samples demonstrating how to use various Flutter widgets. It has been a helpful starting point for many of our UI components.)

Sources for Images
All animal images found for free at: https://unsplash.com/s/photos/pets
Paw Print Image Reference: https://wikiclipart.com/dog-paw-prints-clip-art_37264/