

LucyPet Executive Summary:

LucyPet is an iOS application that allows pet owners to record and keep track of their pets' regular activities all in one place. The app also allows the user to set notification reminders for events, store pet profile information including photo and microchip number, and share event information with others. The application allows for multiple pet profiles and activities to be added for each pet profile added. LucyPet can be used for any type of pet, although the events may be most applicable to primarily dogs and secondarily cats. There is an "Other" type of event where the user can indicate other types of activities that may not be listed. I personally had a problem when I first adopted my dog regarding keeping track of when she was last fed, walked, went to the vet, etc. along with my co-dog owner. We would keep notes in our phone and text each other about the different activities, but we really wanted a place to keep all of this information, and weren't fully satisfied with the options currently in the App Store. LucyPet solves this problem because it allows a pet owner to keep track of all of their pets' activities in one place, create reminders for themselves to do certain activities for their pet, as well as share the information easily through a text, for example.

LucyPet has three tabs: Recent Activity, Your Pets, and Notifications. The Recent Activity tab allows the user to view recent activity for all of their pets, sorted with most recent events at the top. The user can swipe an activity to delete it, or they can tap on a specific activity to show a detail page with additional comments regarding that activity. The detail page also has a bar button item to share the activity through a message, add to notes, on social media, etc. This feature could likely be the most useful to share with a co dog-owner so you can easily let them know when your pet was last fed or walked, for example. On the main Recent Activity page, you can tap the plus sign button to add a new activity including the pet it's associated with, date and time, activity type, and any extra comments. Pet name, activity type, and date and time are required to submit, while comments are optional.

The Your Pets tab allows the user to view all of their pet profiles that have been added. The user can tap on a pet profile to see more details, including name, animal type, birthday, and microchip number. On this detail page, the user can also delete a pet profile. On the main Your Pets page, the user can also tap the plus sign here to add a new pet profile. The pet profile form requires pet name, animal type, and birthday, while microchip # and an uploaded photo are optional.

The last tab, Notifications, allows the user to pick an activity type, date, time and frequency – once, daily, weekly, or monthly - to set a reminder. LucyPet will alert the user with the specified notification while the application is in the foreground, as well as when the application is closed out. This section is useful, for example, to remind the user to walk their pet every day at a certain time, for example. Only one reminder for each activity type can exist at any point in time. If the user wishes to replace the existing activity type reminder and its date/time has not happened yet, they simply need to create a new one of the same activity type and it will replace the old one of the same activity type.

Regarding technical details, LucyPet uses UserDefaults to store activity and pet data locally on the device, so that when you go in and out of the application, data is persistent. The activities and pets are saved as custom objects, and so I used NSKeyedUnarchiver to retrieve and save the data. The home base of the application is in a UITabBarController to be able to navigate between the three main sections of the application. The activities are displayed in a UITableViewController with attached segues including UITableViewControllers. The pets are displayed in a UICollectionViewController with attached segues including a UIViewController and a UITableViewController. The Notification section uses the UserNotifications framework to display the chosen reminders both inside and outside of the application.