

The Animals Are Starving:

**SIMPLE Animal Feeding
Tracker for Frantic Families**

Tjammie Ko
Dean McCarthy
Matthew Fung
Aidan Cotsakis



HIGH-LEVEL IDEA

About The App

Anyone with animals is far too familiar with the words “Did anyone feed them?”

The Animals Are Starving makes sure your animals are fed without this hassle, while being friendly for all kinds of users, even those less tech savvy. Family members can easily check the app to see if the animals have been fed, and if not, users can report that they fed the animals to keep everyone updated. If no one reports the animal as fed, select users will receive a notification to make sure your fluffy friend receives the meal they deserve.



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Target Audience

The Animals Are Starving is the perfect app for large frantic families with pets. Apps like this can be confusing to work with, however, our app's restricted mode simplifies the user interface so even your grandparents can use it with ease.



MAIN ACTORS AND USE CASES

Restricted User

Household member who struggles with technology has a limited UI.

This user can:

Login - Authenticate the user through Google and connect to a household.

Log Feeding - Check if the animals have been fed and, if not, claim that they have fed the animals.



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Regular User

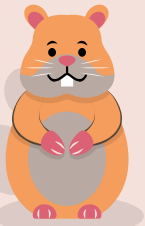
Average household member that will be able to feed the pet with extra functionality.

This user can:

Do everything the restricted user can do.

Notify Users To Feed The Animals - View a list of household members and select specific members to receive a notification to feed the animals.

Passive use case: Regular users will receive automatic notifications if no one fed the animals.



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Household Manager

Most technically capable user in the household who controls the house in the app.

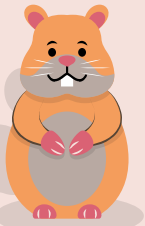
This user can:

Do everything the regular user can do.

Manage Household - Add/remove users, add/remove pets, Set household settings.

Manage History - View a log of who fed the animals.

Passive use case: Regular users will receive automatic notifications if no one fed the animals.



PROJECT HIGHLIGHT

Main Concept:

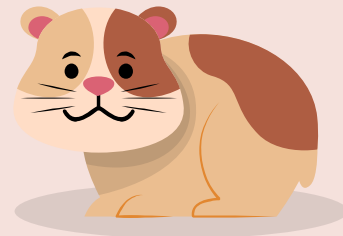
The app features a smart notification system to keep feeding fair among family members.

When the time comes to send out automatic notifications, *The Animals Are Starving* will send them out in a staged system. Users will receive notifications in increasing order of number of times fed. So, if a user has fed the animals the least, they will be first notified that the animals are not yet fed.

Example:

User	Times Fed	Time Notified
Tjammie	6	6:10 pm
Dean	4	6:05 pm
Matthew	7	6:15 pm
Aidan	2	6:00 pm

Initial time and gap between notifications is set by the host



HIGH-LEVEL DESIGN

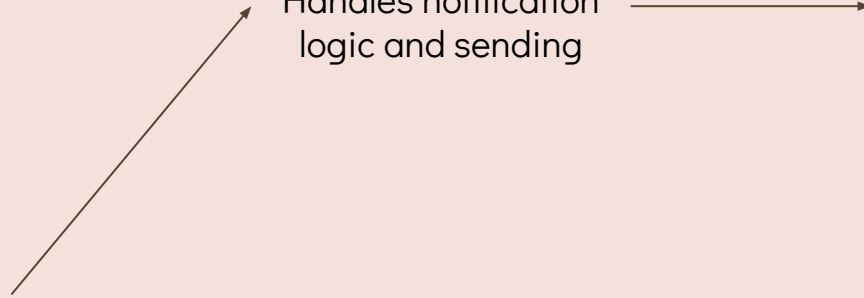
Front End
Main UI

Notifications

Handles notification
logic and sending

Firebase

API to push
notifications



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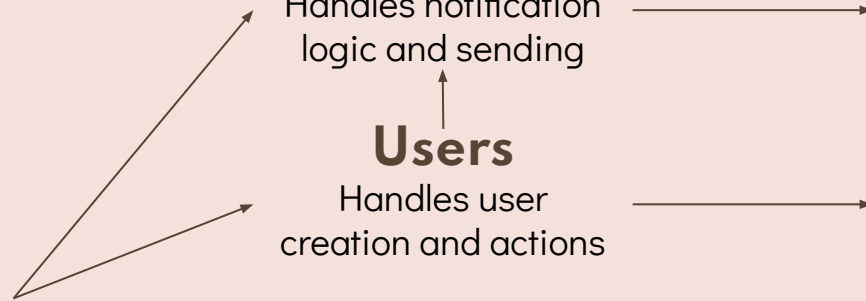
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MongoDB

Databases for users,
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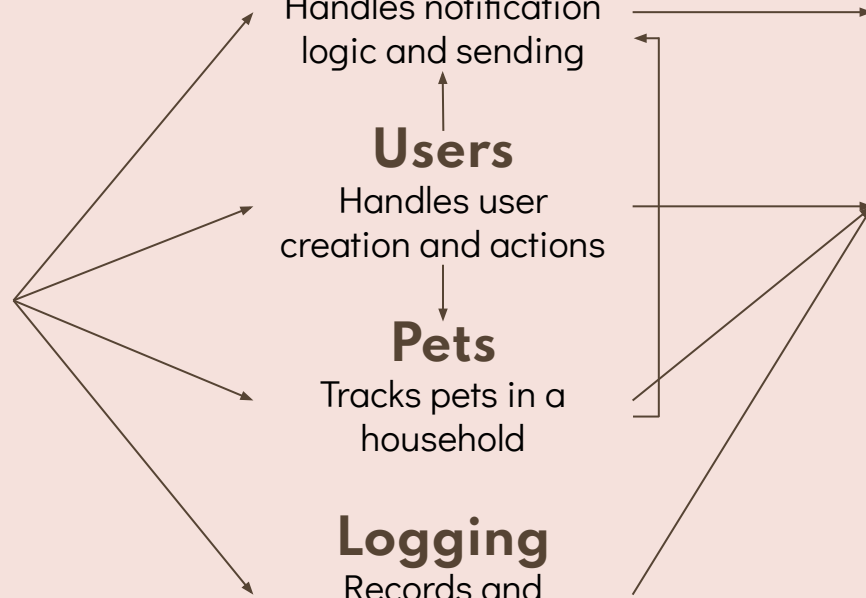
Records and retrieves feeding logs

Firebase

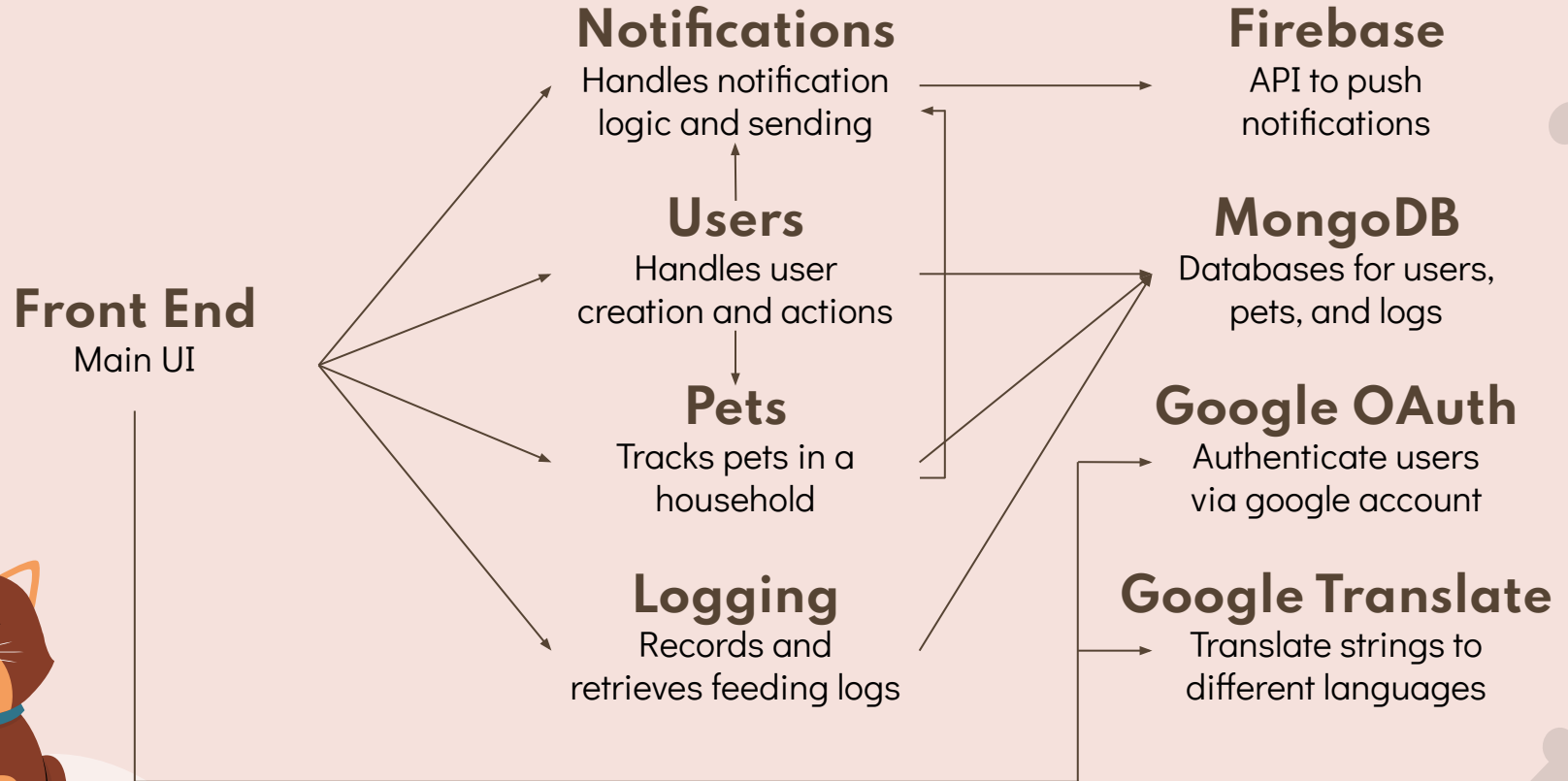
API to push notifications

MongoDB

Databases for users, pets, and logs



HIGH-LEVEL DESIGN



THE MAIN CHALLENGE

Problem:

The Animals Are Starving requires a lot of data management. We need to store things such as household information, user data, pet data, and logs. On top of that, all of this data needs to be dynamic, that is it must be changeable and be able to support any number of entries per category. When working with a group, we all need to agree on the semantics of the data stored.



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How We Plan To Overcome It:

This problem requires a lot of careful planning from the team. Everyone must be in agreeance and have an understanding of how data is stored. We can also implement in between functions that communicate with the database, to add a layer of abstraction and streamline the communication with the database. We also need to make sure operations with our database are fast and efficient, to be able to support the expected large amount of data.

