Your one stop for puppers, doggos, and good bois

TEAM MEMBERS:
Shashi Kumar Kadari Mallikarjuna
Sukriti Agarwal

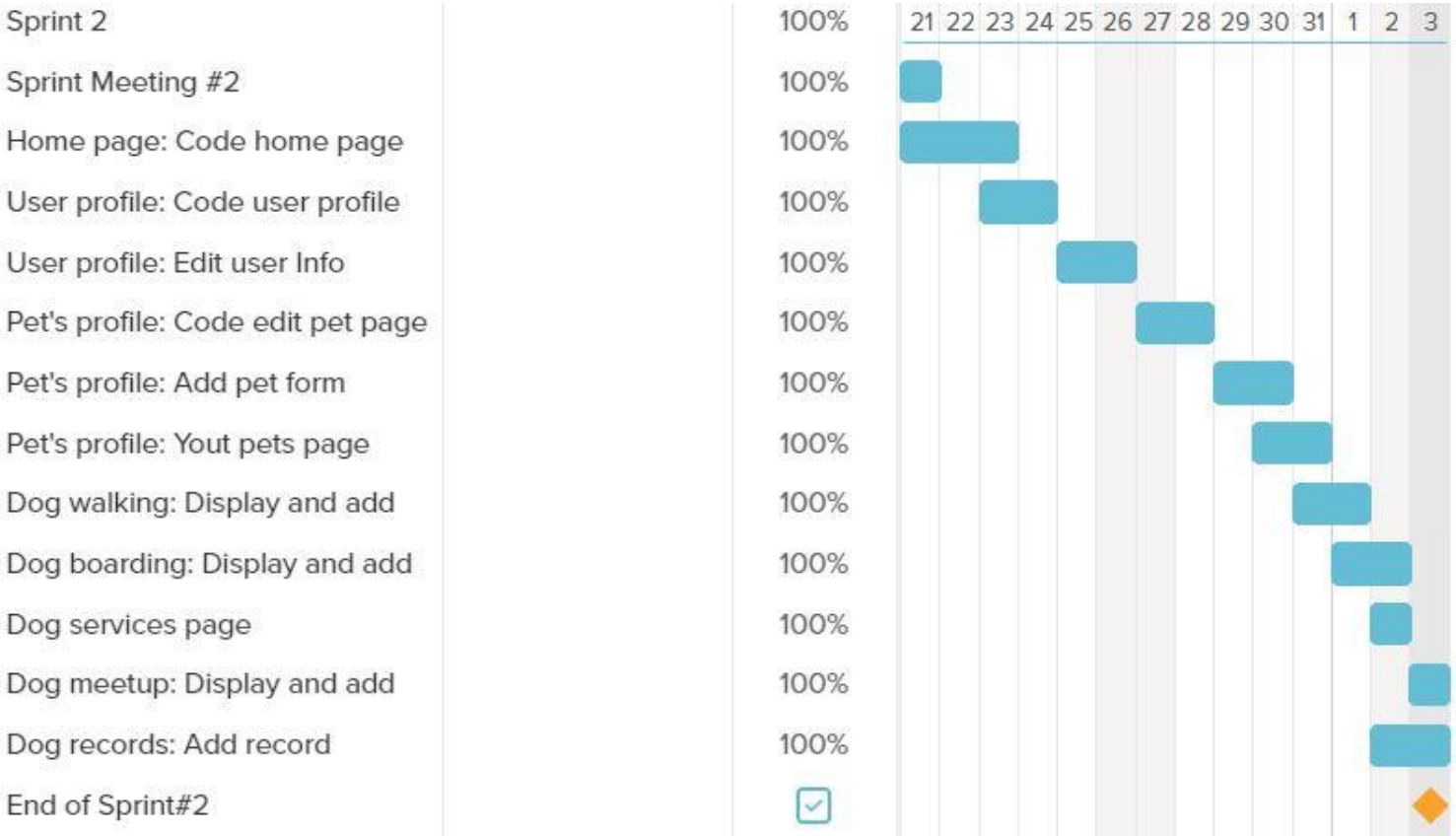
Hamza Mekouar
Brandon Winn

Dhiren Lalwani
Daniel Li

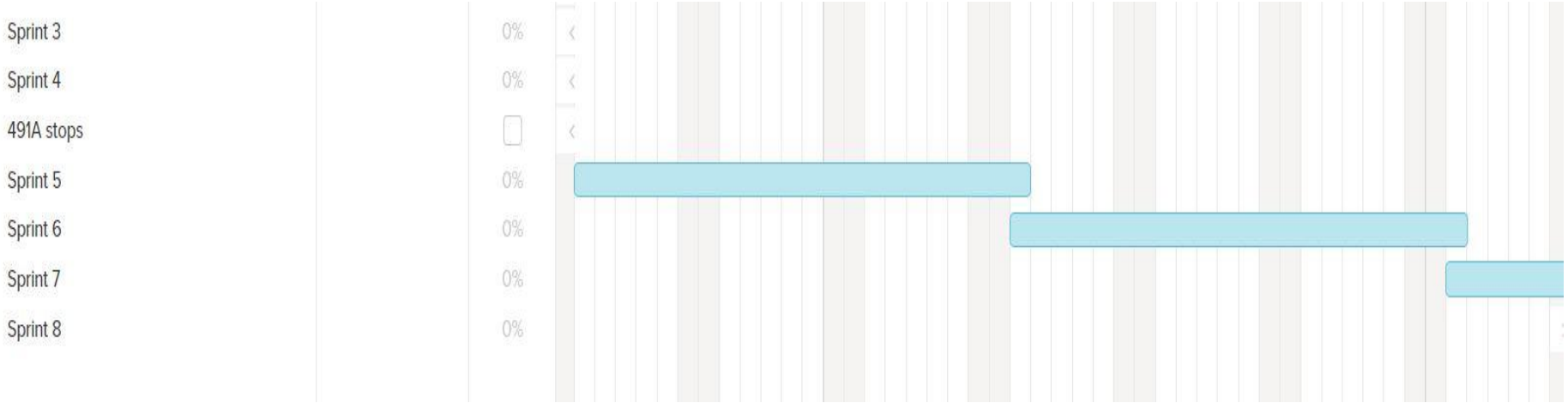
Updates to BRD

We do not have any updates to the Business Requirements Document this sprint.

Updates to Management Plan:Gantt Chart



Gantt chart (continued)



Most significant user story

We believe all our user stories are significant because are user stories are different features of our app so we believe it is important to offer all the features to the user we promised we would. However, if we were to pick we would say our most important user story is:

“As a first time user, I want to create my profile so that I have my details saved for accessing different features of the web application.”

This is because you need to create a profile for yourself when you first use our app and you would need to do this before you can access and use all the other features of our app.

User Stories

- *As a first time user, I want to create an account so that I can use the web application.*
- *As a user, I want to login to my profile so that I can access my account.*
- *As a first time user, I want to create my profile so that I have my details saved for accessing different features of the web application.*
- *As a user, I want to edit my profile if there are any changes to my personal information.*
- *As a user, I want to create a profile for my dogs to save their information.*
- *As a user, I want to look at different services offered in the web application on the home screen after I log in so that I can choose the service I want for my dog.*
- *As a user, I want to be able to choose the Dog Walking service so that I can let my dog be walked by a dog walker.*
    i. *As a user, when I select dog walking service, I would like to see a list of dog walkers in my area along with the price they charge per hour and the reviews/ratings of the dog walkers by the users to get confidence on the dog walker with whom I will send my dog for dog walking.*
    ii. *As a user, I would like to message the dog walker about the time when I want my dog to be walked.*

User Stories (Continued)

- *As a user, I would want to be able to choose to adopt a dog service to choose a dog I want to adopt.*
  i. *As a user, I would want to search for a specific breed of dogs that I am looking to adopt.*
  ii. *As a user, I would like to get alerts for specific breeds that I am interested in adopting when they are posted for adoption.*
  iii. *As a user, I would like to look at the price of adopting a dog.*
  iv. *As a user, I would like to look at the location when the dog is available for adoption.*
  v. *As a user, I would like to send a message to the person who put up the post for adoption about more details.*

- *As a user, I would want to be able to choose schedule vet appointments service to schedule a vet appointment for my dog.*
  i. *As a user, I would like to look at the vets nearby for easier commute.*
  ii. *As a user, I would like to look at the available appointments in the vet I choose to go to.*
  iii. *As a user, I would like to look at the reviews of the vets for better confidence in the vet I am choosing to go to.*
  iv. *As a user, I would like to book an appointment for the vet.*

User Stories (Continued)

- *As a user, I would like to be able to choose a dog boarding service so that I can leave my dog there when I travel.*
  - i. *As a user, I would like to look at nearby dog boarding facilities, people who are willing to take care of my dogs, and dog kennels.*
  - ii. *As a user, I would like to look at the rating of the dog boarding facilities, people who are willing to take care of my dogs, and dog kennels.*
  - iii. *As a user, I would like to message the dog boarding service providers about more information.*
  - iv. *As a user, I would like to look at cost per day for dog boarding.*
- *As a user, I would like to be able to choose to find nearby dog services.*
  - i. *As a user, I would like to look for dog supplies stores near me.*
  - ii. *As a user, I would like to look for dog grooming services near me.*

- *As a user, I would like to be able to view all available dog meetups near me*
  - i. *As a user, I would like to create my own dog meetup and give other people the opportunity to come to mine.*

- *As a user, I would like to be able to upload my pet's medical documents.*

- *As a user, I would like to be able to log out of the web application.*

Is there code released to the users, who are members of the general public and who can interact with the code anywhere in the world and any time?

The web application has been hosted using **Firebase by Google**. Our application is up and running for any person around the world to use it. No public have access to the code that we wrote but they can use the application.

How many users story points delivered to the users according to the industry agile process?

98 story points has been delivered to the users until now according to the industry agile process.

User stories corresponding to the released code

New Users: *As a first time user, I want to create an account so that I can use the web application.*
Logging In: *As a user, I want to login to my profile so that I can access my account.*
Navigation: *As a user, I want to look at different services offered in the web application on the home screen after I log in so that I can choose the service I want for my dog.*
Home Page: *As a first time user, I want to create an account so that I can use the web application.*
As a user, I want to look at different services offered in the web application on the home screen after I log in so that I can choose the service I want for my dog.
Your Pets: *As a user, I want to create a profile for my dogs to save their information.*

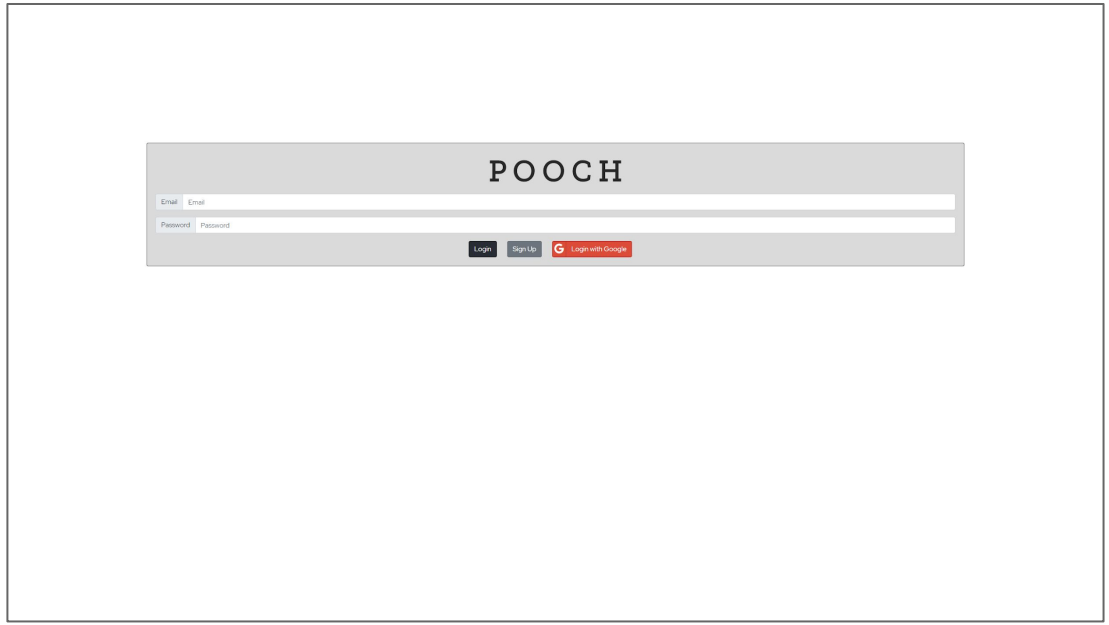
User stories corresponding to the released code

Dog Walking: *As a user, I want to be able to choose the Dog Walking service so that I can let my dog be walked by a dog walker.*
Dog Boarding: *As a user, I would like to be able to choose a dog boarding service so that I can leave my dog there when I travel.*
Dog Services: None
Dog Meetup: *As a user, I would like to be able to view all available dog meetups near me.*
As a user, I would like to create my own dog meetup and give other people the opportunity to come to mine.
Dog Records: None
Logout: *As a user, I would like to be able to log out of the web application.*

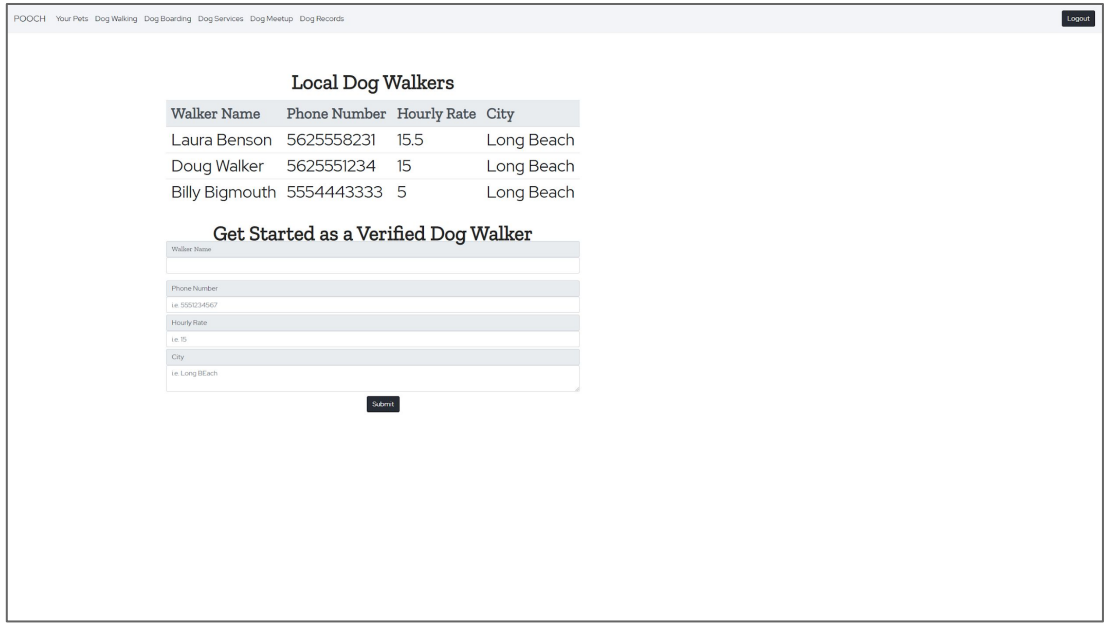
UI Design - *Aesthetic*

Characteristics

- Modern with no clutter
- Monochromatic
- Color for accents



UI Design - Design Goals

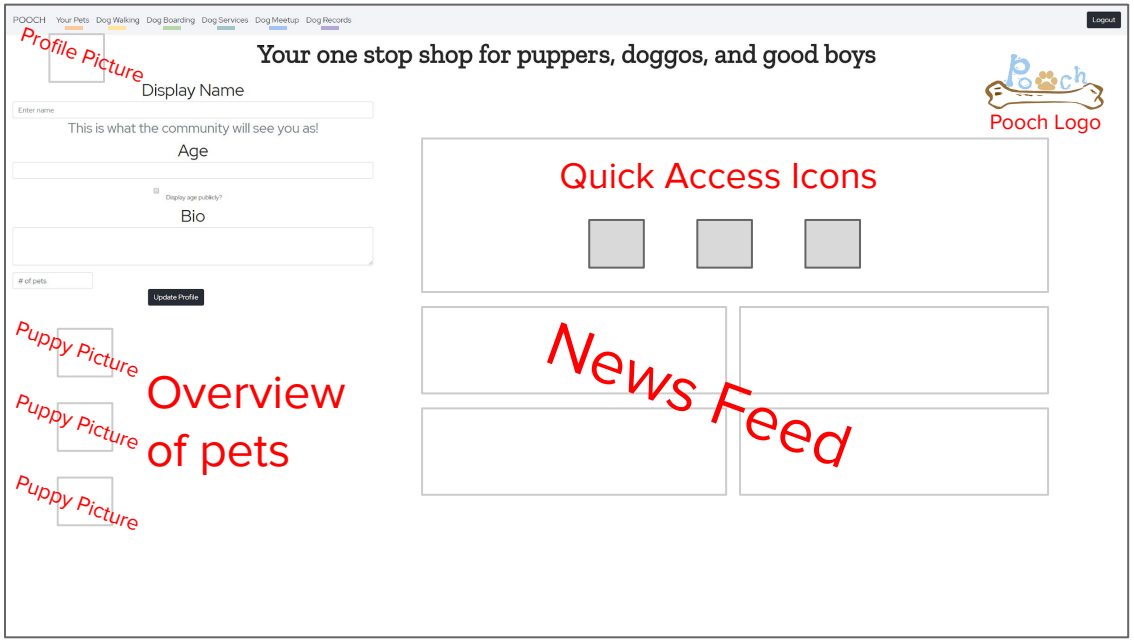


Back of the Mind

- No feature more than 3 clicks away
- Function obvious to users
- Fast access to what is used the most

UI Design - Improvements

Color coded sections



Directions to Consider

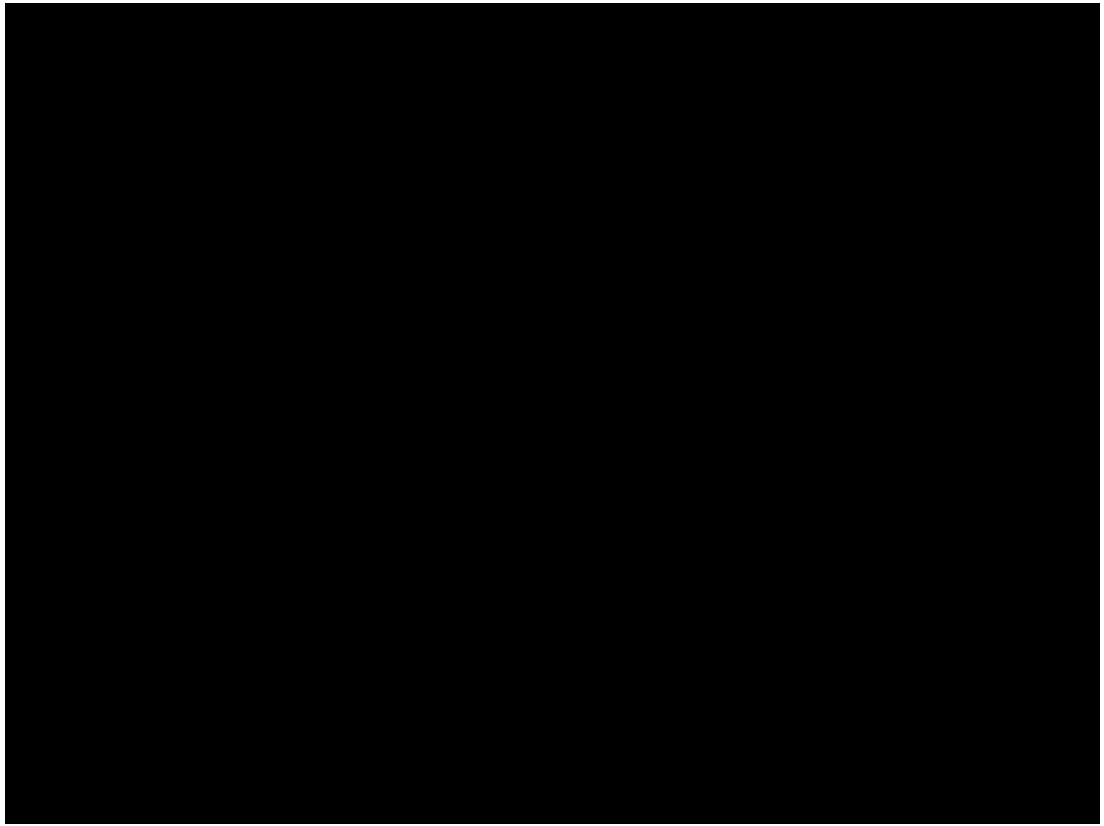
- Incorporate Pooch logo
- Add splashes of color and images
- Tailor experience to each user

How many clicks to reach a certain feature?

We believe on making our application quick and easy to use so it takes **no more than three clicks** to obtain service of each feature provided. If you start at the Login Screen, the number of clicks to reach a certain feature:

Homepage- 1 click
Your Pets- 2 clicks
Dog walking- 2 clicks
Dog Boarding- 2 clicks
Dog Services- 2 clicks
Dog Meetup- 2 clicks
Dog Records- 2 clicks
Logout- 2 clicks

Pooch UI video



Goal for code release

The primary goal for this code release was to code for all the features page to make our web application functional and available for the users to use and provide feedback for us to improve our web application. We also planned on hosting our web application.

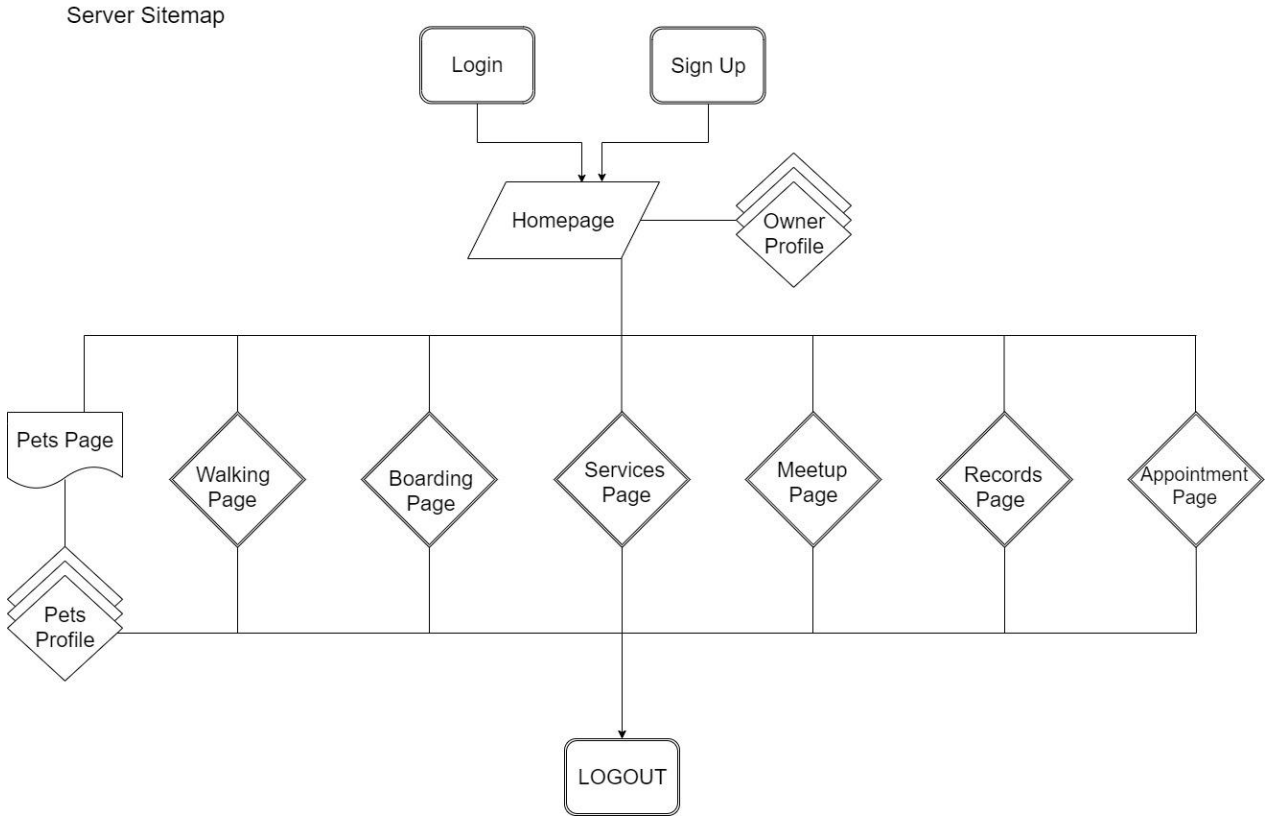
Was this goal achieved?

Yes, we achieved our goals that were planned. We coded for all the features pages to give it a basic functionality. We hosted our web application. URL- https://cecs-491-1934c.web.app/

PRD- User Stories (Updates)

- *As a user, I would like to be able to view all available dog meetups near me*
  i. *As a user, I would like to create my own dog meetup and give other people the opportunity to come to mine.*
- *As a user, I would like to be able to upload my pet's medical documents*

PRD-Server Sitemap



Users after logging in logs on the home page and then their pets page which would eventually lead them to **any desired feature** page.

No particular map to reach to feature pages and finally, the user can exit the application (the logout page).

PRD- Interfaces

1. User Interface (UI)
    a. Design emphasis on anticipating what users might need to do and ensuring that the interface elements or features that are easy to access, understand, and utilize. UI connect concepts from visual design, interaction design, and information architecture.
2. Admin Interface
    a. Back end that is responsible for storing and manipulating data. Once logged in, authors can use the admin interface to set up and develop a project, manage its structure and content, install extensions, and perform other tasks.
3. External API
    a. Application programming interface, is a way to programmatically interact with a separate software component or resources. We are using Google API for Sign In page and Cloud Vision API for Machine Learning.

Architecture and Design Document

What platform does the released code operate on?

Pooch is running on **Firebase**.

-A real time database and website hosting service, owned by Google, to simplify the backend for web developers. By using Firebase, developers can focus on the UI and application logic, without having to worry about implementing their own security or database rules.

Coding language for the main server?

Node.js is used to code the server-side platform.

- It is asynchronous and event driven.
- Very fast code execution.
- Single threaded but highly scalable
- No buffering

React.js is used to fetch rapidly changing data that needs to be recorded in the database.

Database utilized

Real-time Database: cloud-hosted NoSQL database, where you can store and sync data to all connected clients in real-time.

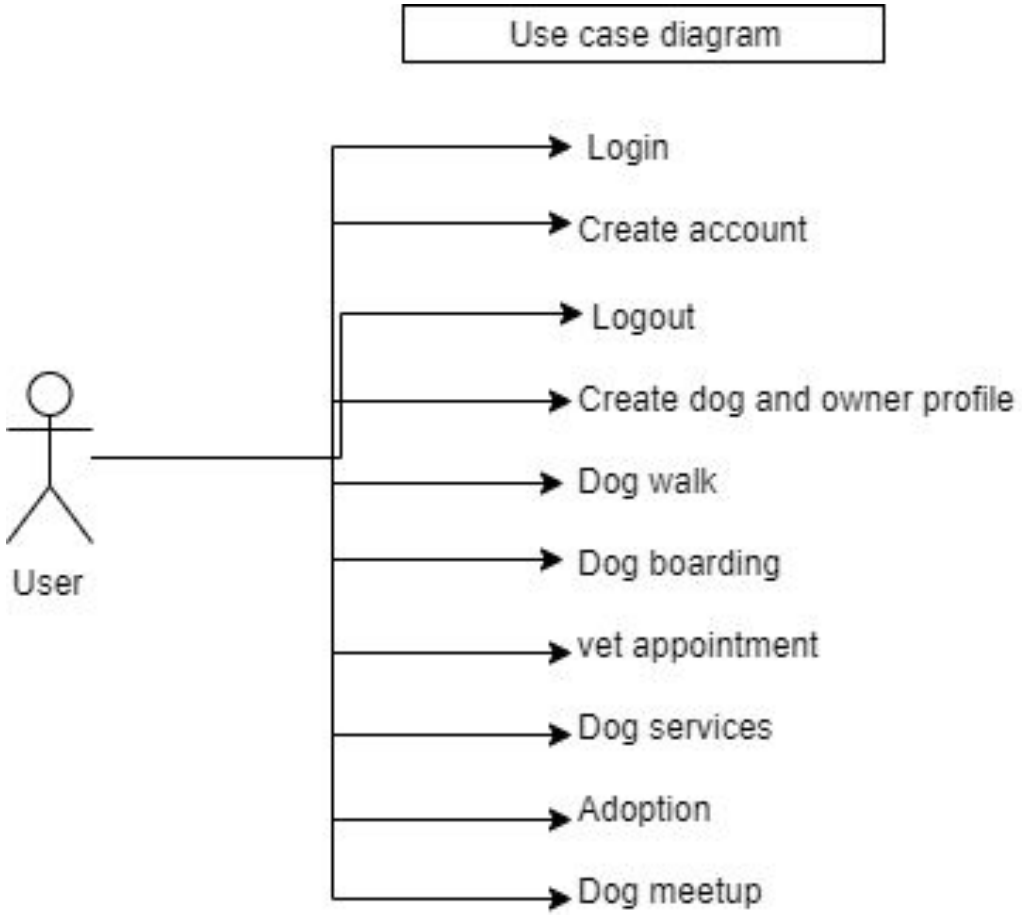
Authentication: provides backend services, instant UI Libraries and SDKs to authenticate users to your app using email id, password, or username.

Hosting: Firebase provides fast, secure, static, and production web content hosting for developers. With a single knack it allows developers to efficiently deploy web apps and serve both static and dynamic content to a global CDN (content delivery network).

App Indexing: It reengages your app users by helping them find both public and personal content right on their device, even offering query autocompletions to help them more quickly find what they need.

AdMob: is an advertising facility of the Firebase which is used to generate revenue from your app. You can also use AdMob with Google Analytics to measure app usage data and analytics capabilities.

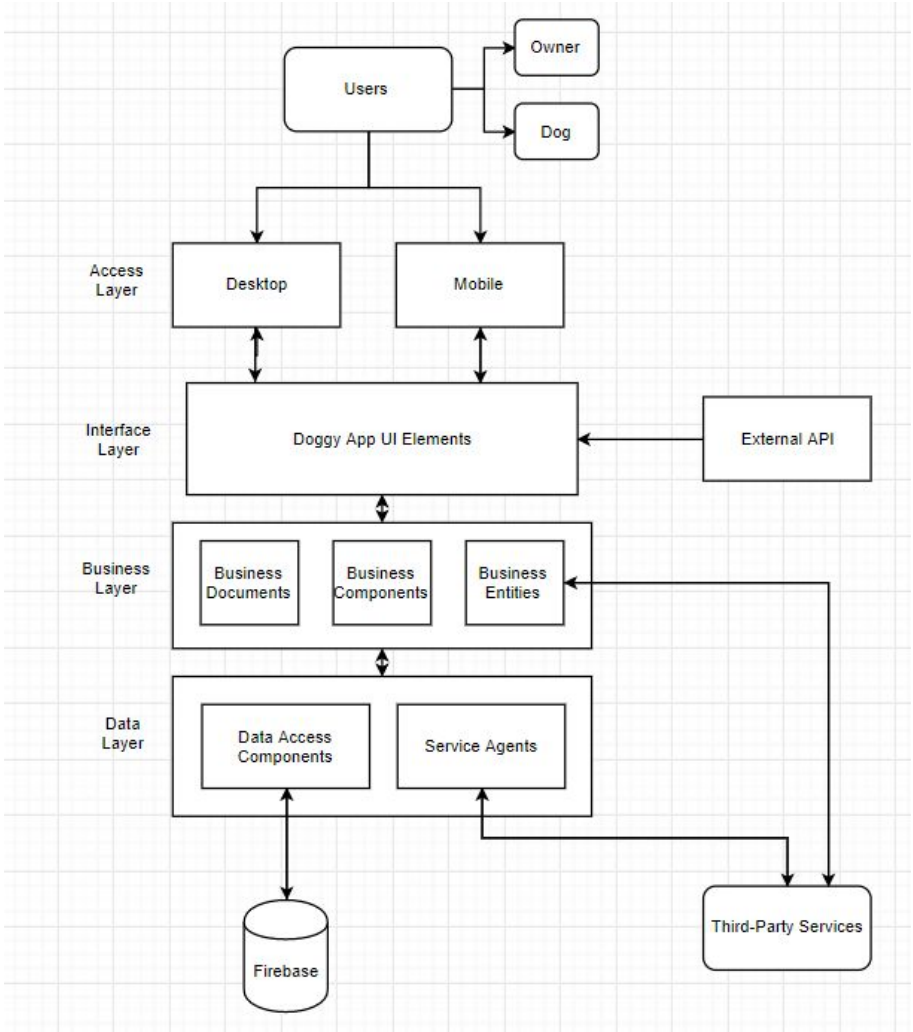
Use Case Diagram



System Component Diagram

LAYERED Architecture approach
4-layer architecture:

1. The access layer
2. The interface layer
3. The business layer
4. The data layer



Quality and Quantity Standards

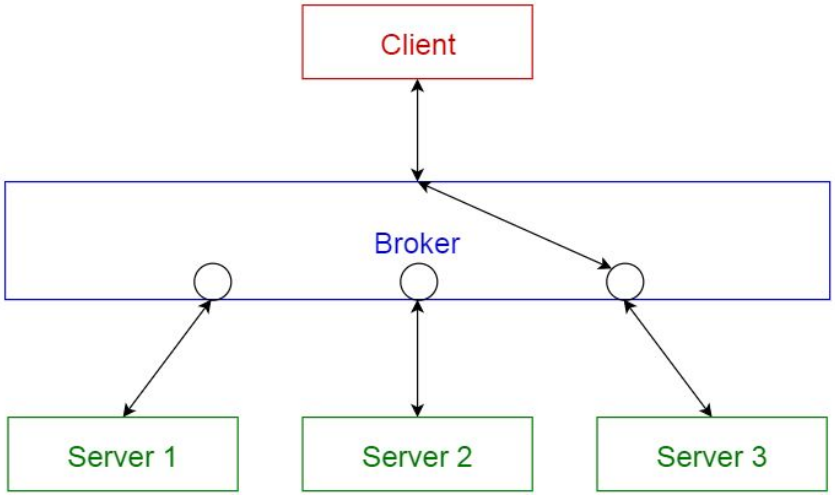
- Layered architecture, so different teams can work on different layers.
- Advantages of layered architecture:
  - Re usage of lower level layers.
  - Layers make standardization easier.
  - Each layer has its own function.
  - Changes made to one layer, does not affect other layers.
  - Addition or modification of functions and modules easier.
- Layered integrated with client-server type of architecture.
  - Divide tasks into smaller units, so services requested can be handled faster.
  - Splitting tasks into smaller threads to faster process a request.

Update to Architecture and Design document

- Major inclusion of architecture alternatives along with the detailed architecture components.
  - Broker Pattern
  - Model-view-controller pattern

Architectural Alternatives I

BROKER PATTERN



This pattern is used to structure distributed systems with separate components.

A BROKER is responsible for interaction between major components.

Server publishes their capabilities to a broker.
Client requests a service from a broker, broker redirects to the appropriate service.

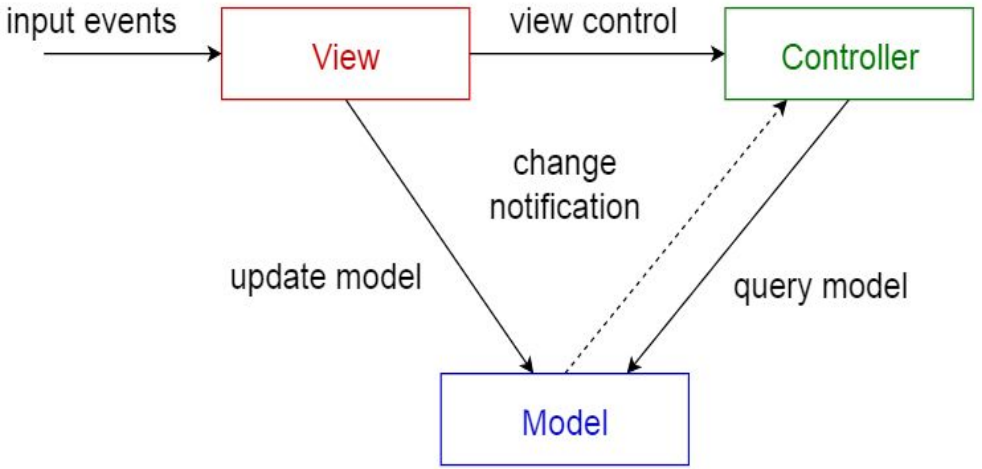
Architectural Alternatives II

MODEL - VIEW - CONTROLLER PATTERN

This model is used when the internal representations of information needs to be kept separate from what is being presented to the user.

Three main parts to the interactive application:

1. **Model:** Contains main functions and data
2. **View:** Displays information to the user
3. **Controller:** Handles user input.



Why not choose these alternatives?

BROKER PATTERN

- We do not plan to use multiple instances of servers for different services, thus this pattern would not be the best choice.
- Message broker softwares are Apache ActiveMQ and RabbitMQ - unfamiliarity to these softwares would make it more difficult to work with.

MODEL VIEW CONTROLLER PATTERN

- It works best for web frameworks like Django.
- It increases the complexity of the code, may also lead to unnecessary updates for user actions.
- Considering a lot of features, it is best to not implement this model.

How did we decide on server choice?

Prominent startup-friendly web app hosting services

- Firebase
- Amazon Web Services
- Microsoft Azure

How did we decide on server choice? (Cont.)

	Firebase	AWS	Azure
Has the team used it before?	X		
Easy to learn?	X		
Is it free to start?	X		
But is it low cost?	X	X	
Does it support NoSQL?	X	X	X
Can it handle large queries?		X	X
Free analytics?	X		
Free machine learning kit?	X		
Follows GDPR?		X	X

Machine Learning and Benefits

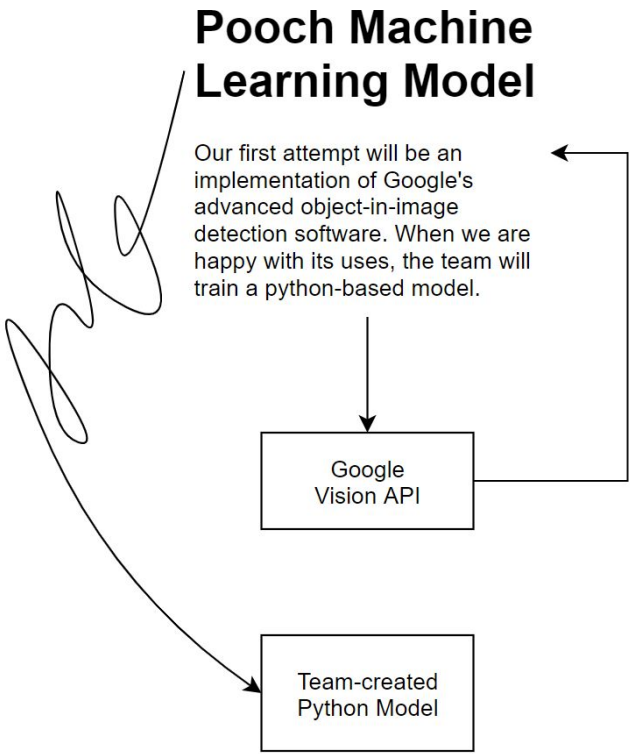
-Pooch will use **Google's Cloud Vision API** to derive information from the images our users upload to the site. This will allow the integration of several security features which would otherwise not be possible for a small project.

a) Cloud Vision will ensure the profile pictures of owners are people and the profile pictures of dogs are actually dogs. This will reduce instances of troll accounts.
b) The API will help identify inappropriate content.
c) Duplicate photos could be detected to catch fake users stealing the profile pictures of other users.

This Cloud Vision API mainly works with the neural networks Machine learning model.

Neural networks are a set of algorithms, modeled loosely after the human brain, that are designed to recognize patterns. They interpret sensory data through a kind of machine perception, labeling or clustering raw input. The patterns they recognize are numerical, contained in vectors, into which all real-world data, be it images, sound, text or time series, must be translated.

Machine Learning - Important Note

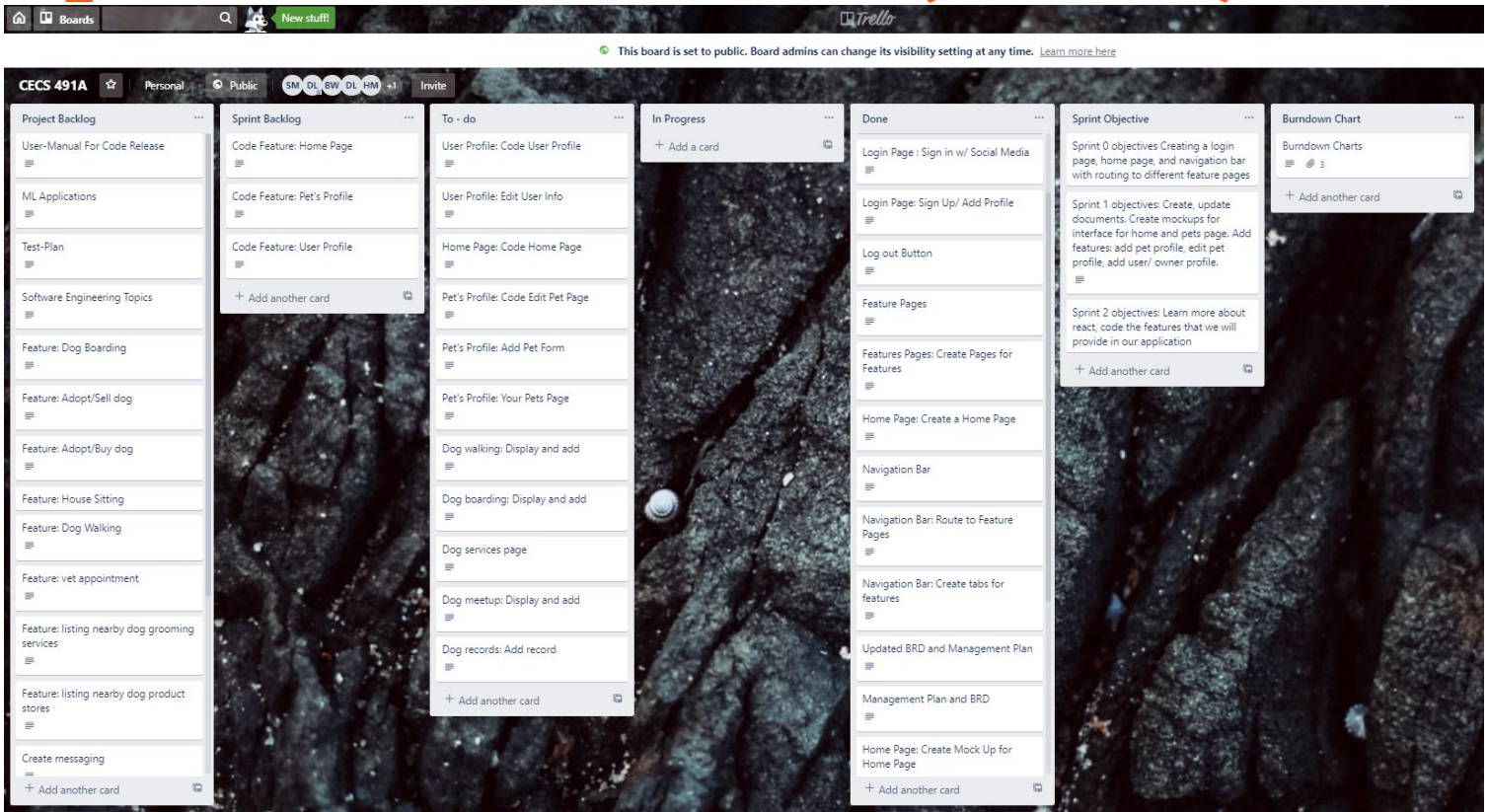


Sprint #2 Summary

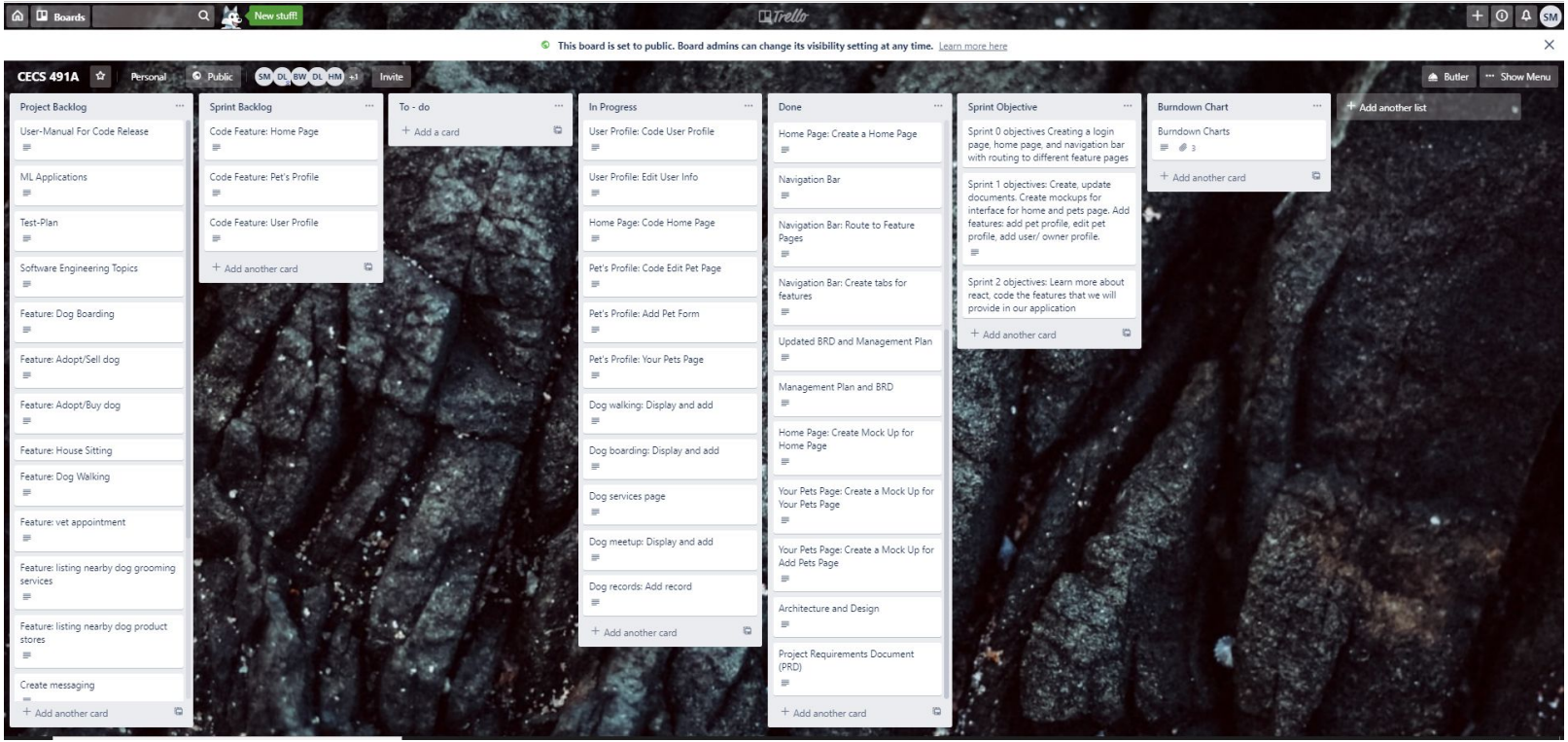
Sprint #2 Goals

- ★ Primary objective of this sprint was to start coding for all the features page to make our web application functional and available for the users to use and provide feedback for us to improve our web application.
- ★ Next objective was to host the web application.
- ★ Next objective was to verify the released code.

Sprint Board - Trello (Before)



Sprint Board - Trello (After)



BURNDOWN CHART

Project Tracking Matrix

Project	Pooch
Project Start Date	10/21/2019
Project Manager	Shashi Kumar Kadari Mallikarjuna
Project End Date	11/03/2019

OrangeScrum

Task	Task Type	Task Status	Est SLOC	Actual SLOC	Priority	Assigned To	Assigned Date	Deadline	Estimated Hrs	Start Date	End Date	% Done	Actual Hr.
Create home page	Coding	Done	200	180	High	Shashi Kumar	10/21/2019	11/03/2019	10	10/21/2019	10/23/2019	100%	8
User profile	Coding	Done	200	150	High	Sukriti	10/21/2019	11/03/2019	12	10/23/2019	10/26/2019	100%	10
Pets profile	Coding	Done	200	300	High	Dhiren Lalwani	10/21/2019	11/03/2019	12	10/27/2019	10/31/2019	100%	14
Dog walking	Coding	Done	300	260	High	Brandon	10/21/2019	11/03/2019	12	10/31/2019	11/1/2019	100%	14
Dog services	Coding	Done	200	150	High	Hamza	10/21/2019	11/03/2019	12	11/1/2019	11/2/2019	100%	13
Dog meetup	Coding	Done	300	240	High	Brandon	10/21/2019	11/03/2019	10	11/2/2019	11/3/2019	100%	13
Dog records	Coding	Done	300	320	High	Daniel	10/21/2019	11/03/2019	12	11/2/2019	11/3/2019	100%	14
Dog boarding	Coding	Done	200	280	High	Shashi, Brandon	10/21/2019	11/03/2019	10	11/1/2019	11/2/2019	100%	8

Total Hours Spent	90
Project Progress	100.00%

Sprint #2 Retrospective

Did we meet our sprint goal?

Yes, we finished all the tasks that was planned for this sprint on time.

Sprint Velocity(current)

- ★ 62 points were planned in this sprint.
- ★ We were able to complete 62 points on time.
- ★ Commitment per person every week = 5 hours.
- ★ Team commitment per sprint= 90 hours.

Sprint Velocity(Next Sprint)

Planning on completing 60 points in the next sprint.

How did the burndown chart look?

The burndown chart was not exactly linear because of the learning curve. However, we were able to finish all the tasks.

What worked well in the sprint?

The right amount of tasks were assigned in this sprint which could be completed in the given timeframe.

What could be improved?

Provide more time for testing the code we wrote.
Make the pages more functional.

Goal for Sprint 3

We plan on making the web application more functional adding UI elements making the web application more attractive.

User Manual for the Code Release

Introduction

Welcome to Pooch!

The dog focused petcare web application which plans to become an all-in-one dog service application, for everything related to pets.

Available for all the users, whether it be dog lovers, dog owners, people who wish to adopt dogs, and/or dog service providers.

First version available at:
https://cecs-491-1934c.web.app/

New Users: Register / Sign Up

- The website is hosted online using Firebase.
- The way users can access our web application is through the link provided on the board and in the previous slides.
- The ways to **sign in** as a NEW USER for our application is either:
  - Sign up directly as a new user.
    - Type in your valid email address and a suitable password to enjoy the features.
  - Sign in using the Google API (an additional feature our application provides)
- Either way the user signs in, it takes the user to the owner profile page.

Existing Users: Log in

- Existing users type in the correct URL.
- The ways to **log in** as a registered USER for our application is either:
  - Log in directly -
    - Type in your registered email address and the correct password to enjoy the features.
  - Log in using the Google API, if your account is validated and identified by Google service.
- Either way the user logs in, it takes the user to the owner profile page.

Home Page

Once the user login to the web application, he/she will be taken to the home page.
User can also go to this page by clicking the **Pooch logo.**

- In this page, the first time user **creates a profile**.
- If the user is not a first time user, then the user's information will be displayed.
- The users can **edit** their personal information in this page.

Your Pets

The user can navigate to this page by clicking the **Your pets** tab in the **Navigation bar.**

- The users can **add** the basic information of their pets by clicking submit button.
- The users can also **view the list of pets** they added to this application in this tab.
- The users can **edit** their pets information in this page.

Dog Walking

The user can access to this page by clicking the **Dog Walking** tab in the **Navigation Bar.**

- The user can search and choose from the **Local Dog Walkers** list as he/she prefers.
- The user can decide on which **Dog Walker** he/she wants and also contact the walker using (phone number) to make an appointment.
- The user can also register as a **verified** dog walker in this page.

Dog Boarding

The user can access to this page by clicking the **Dog Boarding** tab in the **Navigation Bar.**

- The user can search and choose from the **Local Dog Boarders** places as he/she prefers.
- The user can decide which place is more convenience based on its price and other factors.
- The user can also register as a **verified** dog boarder in this page.

Dog Services

The user can access to this page by clicking the **Dog Services** tab in the **Navigation Bar.**

- The user will be able to choose from multiple options of Dog Services:
  - **Local Dog Supply Stores**
  - **Local Dog Grooming Services**
  - **Local Adoption Centers**
  - **Local Vets**
- The user can **search** or **filter** the products and services that best suit them from price, location and quantity

Dog Meetup

The user can access to this page by clicking the **Dog Meetup** tab in the **Navigation Bar.**

- User will be able to **create a post** that is shown in an underneath grid about their meetup
- User will **input fields** related to post consisting of:
  - Date/ Time
  - City, State, Zip Code
  - Description
- User has the option **delete** post by **pressing "X"** next to post they created

Dog Records

The user can access to this page by clicking the **Dog Records** tab in the **Navigation Bar.**

- User will be able to **Add Documents** by pressing “Add Document”
- User will be able to upload any .docx/ .pdf/ .png, etc. from their computer

Log Out

The user can access to this page by clicking the **“Logout”** in the **Navigation Bar.**

- User will be able to sign out securely by clicking “Logout”
- User will be returned to **Login** page and be prompted to log back in in order to access the web app's features

Verification and testing of the code release

Anyone can check out the web app at t

https://cecs-491-1934c

End of Sprint 2 Presentation