Group 3

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Pawfect Pairs Vision Statement

Our platform Pawfect Pairs's mission is to revolutionise the dog adoption experience, forging meaningful connections between prospective dog owners and their future pets.

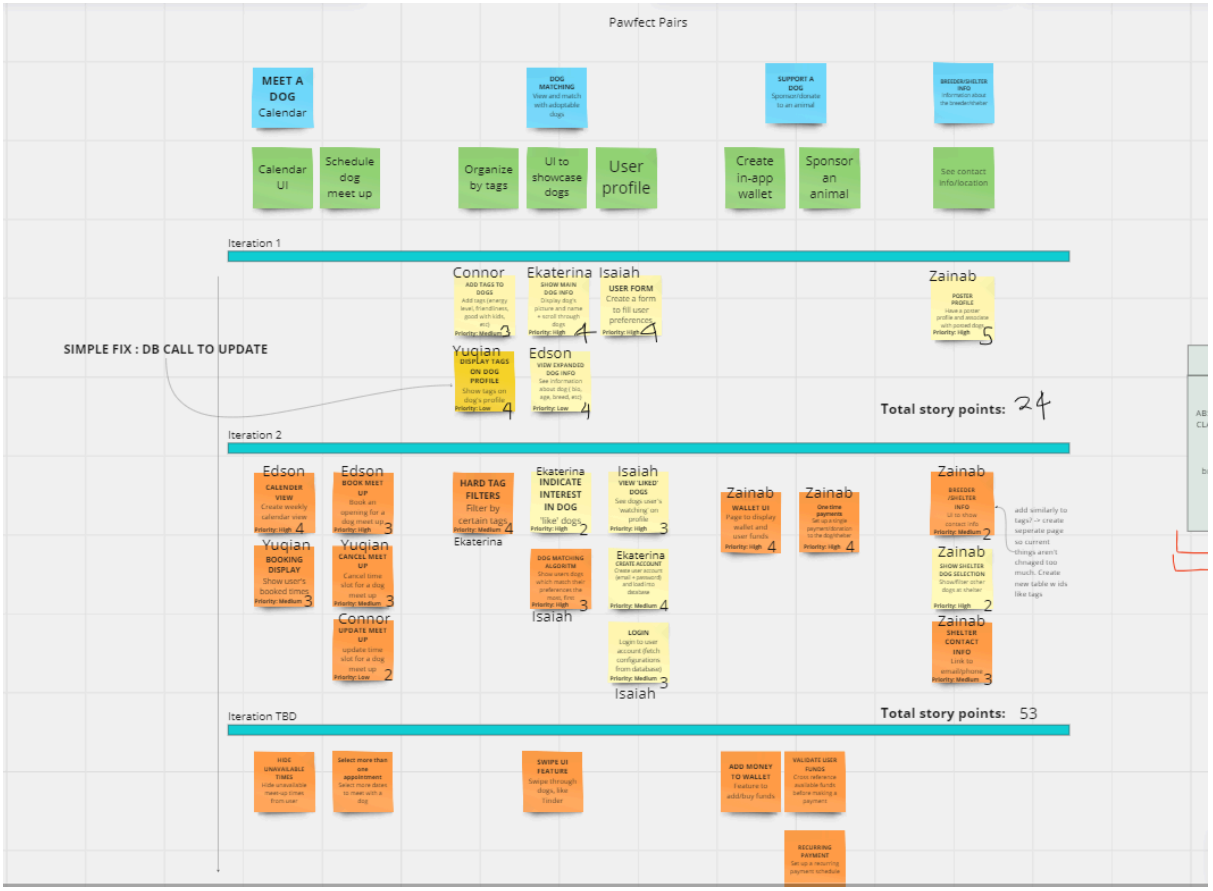
Pawfect Pairs is designed for prospective dog owners actively seeking their perfect companions. The target users are individuals who want a seamless and enjoyable adoption process, connecting them with a diverse range of dogs from local/nearby shelters and responsible breeders. They will be able to see a catalogue of dogs from nearby shelters and breeders along with a biography and relevant tags. Tags will be used to encapsulate and display certain characteristics of the dogs. The user will be able to filter what dogs they will be shown, with filters including attributes like the energy level of the dog, its breed and age.

The critical product attributes are allowing the user to view adoptable dogs, to match with them, and set preferences for the types of dogs you want to see. The customer needs to be satisfied is the need to be able to see at a glance the dog and its important attributes. Through the interface Pawfect Pairs has, users can easily browse through a curated catalogue, accessing biographies and relevant tags that encapsulate each dog's unique characteristics.

The unique selling point, compared to other platforms that are for dog adoption is its ease of use and format innovation. Pawfect Pairs will provide an user-friendly interface, simplifying the adoption process and making it more accessible to users of all experience levels compared to other apps in the market. Furthermore, Pawfect Pairs will bring an engaging format to the adoption process by allowing users to book appointments with the dogs they are interested in through our schedule booking system, ensuring a delightful and smooth experience for users during and after the adoption process. Our platform will also provide user the opportunity to add filters (ex, dog size, energy level, etc.) while they are looking for their perfect matches.

While initially a desktop application, Pawfect Pairs envisions growth with plans to expand into a mobile app. This foresight proves that our platform will remain adaptable to the evolving needs of our users, continuing providing convenience and accessibility. In summary, Pawfect Pairs is not just a dog adoption platform; it is a bridge between the hearts of prospective owners and dogs in need, anticipating a future where the adoption process is joyful as the companionship that follows.

User Story Map (Example of screenshot - Detailed description updated below)



Updated Planning Document ITR 1:

During Iteration 1 we have decided that we would not continue working on the Breed class at this moment as other classes were necessary to ensure proper communication between the original classes to achieve the goals of the user stories. We have added a DogList and PosterList class which have as their backbone a TreeMap and is used for us to visualise the list of all of our dogs and posters. We have also added a “matchMaking” class which allows us to select the best “dog match” based on the tags shared by the dog and the user. As such our group have worked on the following user stories: Poster Profile, Show Main Dog Info, Add Tags to Dogs, View Expanded Dog Info, Indicate Interest in Dog, and Dog Matching Algorithm. With this rearrangement in the order of the user stories we will later work on the remaining user stories in future iterations

We worked on building UI components for all of the classes we created previously. We experimented with build tools like gradle and maven and ultimately decided on using libraries with the downloaded jars from the javaFX SDK. With the GUI we are able to implement the desired functionalities as described in the user stories selected to be executed in the iteration.

Architecture:
https://lucid.app/lucidchart/de8647f7-5f05-497b-8531-29ee26e8938f/edit?viewport_loc=-1015%2C-176%2C2869%2C1327%2C0_0&invitationId=inv_4bae584d-ff4c-43fa-8df0-e71436bbf9ae

Detailed User Stories ITR1:

- Add tags to dogs
    - Tags have tags such as energy level, friendliness etc.
    - Cost: 3 days
    - Priority: Medium
    - Status: Completed
- Show Main Dog Info
    - Display dog’s picture and name + scroll through dogs
    - Cost: 4 days
    - Priority: High
    - Status: Completed
- User form
    - Create a form/profile to fill user preferences
    - Cost: 4 days
    - Priority: High
    - Status: Completed
- Display Tags on Dog Profile
    - Show tags on dog’s profile
    - Cost: 4 days
    - Priority: Low
    - Status: Completed

- View Expanded Dog Info
    - See information about dogs (bio, age, breed and etc)
    - Cost: 4 days
    - Priority: Low
    - Status: Completed
- Poster Profile
    - Have a poster and associate with Poster Dogs
    - Cost: 5 days
    - Priority: High
    - Status: Completed

Task	Group Member	Expected Time (Story Points) **	Actual Time
Add tags to dogs	Connor	3	2
Show main dog info	Ekaterina	4	4
User profile	Isaiah	4	4
Poster profile	Zainab & Ekaterina	5	6
Display tags on dog profile	Yuqian & Ekaterina (UI)	4	4
View expanded dog info	Edson & Isaiah and Ekaterina (UI)	4	5

**1 story point=1 perfect working day

Updated Planning Document ITR 2:

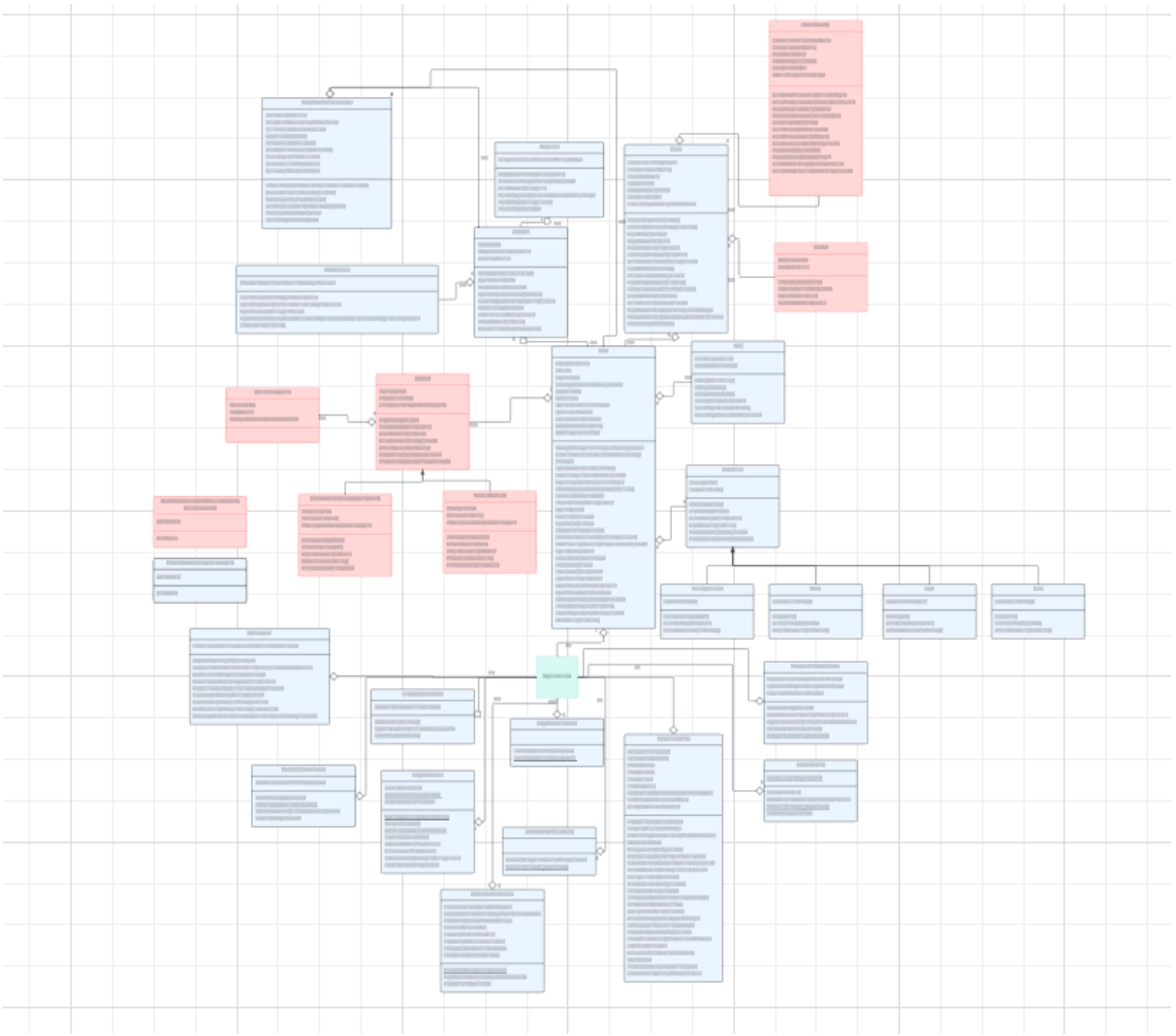
During Iteration 2, our group aimed to create a solid foundation for efficient data management, laying the groundwork for the successful development of our project. We started working on implementing the database using postgresql for our application. The implementation included the creation of tables and the optimization of queries. Our local objects, such as the dog and poster class, are synchronized with the database.

Some changes were made to the backend of our application and the tests were updated to reflect those changes. Setters were added for the new attributes of dog objects.

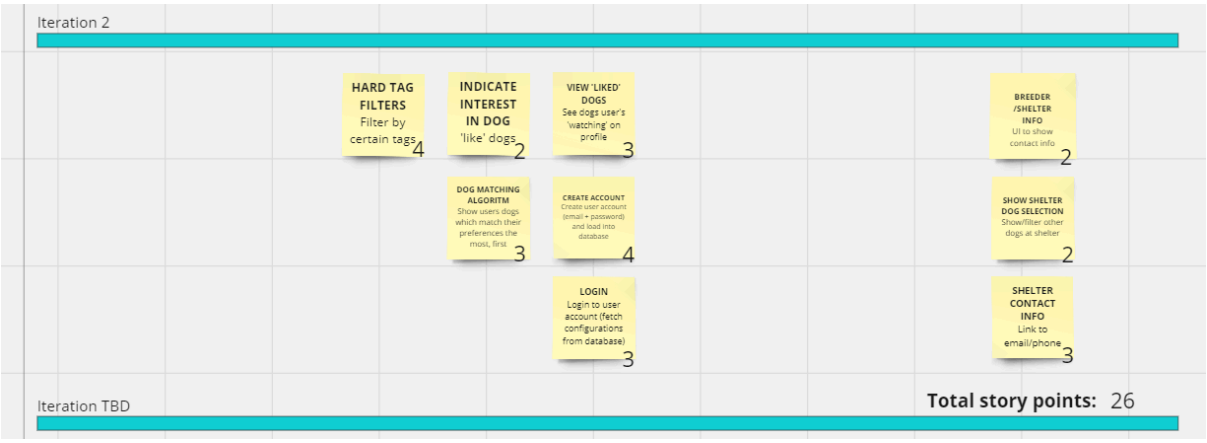
Duration: 3 weeks
Developer tasks that had been completed:

- Customer interviews
- Creating classes (dog, tag, poster, breed, user) base on user stories
- GUI displaying tags
- GUI for dog profile
- JUnit testing for all classes
- Manual testing for all codes
- Database

UML:
https://lucid.app/lucidchart/9468ce1b-8f0f-4dca-97df-480188da5da6/edit?viewport_loc=-910%2C-1196%2C3212%2C1320%2C0_0&invitationId=inv_e196f7a8-9830-4a0f-b2af-77aa938ee63b



Miro Board Updated: https://miro.com/app/board/uXjVN0M_CQg=/ ←View entire story map here
Chosen user stories for iteration 2:



Detailed User Stories ITR2:

- Hard Tag Filters
  - Dogs in the main page are shown based on pre-selected tags from user
  - Cost: 4 days
  - Priority: Medium
- Indicate Interest in Dog
  - Backend and frontend features to “heart” dogs and have them be added to a list
  - Cost: 2 days
  - Priority: High
- View Liked Dogs
  - Dogs being liked by users are displayed on a page as a list
  - Cost: 3 days
  - Priority: High
- Dog Matching Algorithm
  - Based on user’s vision of an “ideal dog”, dogs with a similar description are shown
  - Cost: 3 days
  - Priority: High
- Create Account
  - Allow new users to enter new username and password credentials and start using the application
  - Cost: 4 days
  - Priority: Medium
- Login
  - Login page for user
  - Cost: 3 days
  - Priority: Medium
- Breeder
  - Display the breeder’s dogs and personal information like ratings
  - Displays dog selection of a shelter or Poster

    - Show Shelter/Poster Dog Selection
    - Cost: 2 days
    - Priority: Medium
- Shelter Contact Information
    - Link to email and phone number of the shelter
    - Cost: 2 days
    - Priority: Medium
- Calendar View
    - Display a calendar view when users booking appointments with their liked dogs
    - Cost: 2 days
    - Priority: Medium
- Booking Display
    - Display users' book appointments
    - Cost: 2 days
    - Priority: Medium
- Book Meet Up
    - Allow users to book meet up appointments with their liked dogs
    - Cost: 3 days
    - Priority: Medium
- Cancel Meet Up
    - Allow users to cancel their booked appointments
    - Cost: 3 days
    - Priority: Medium
- Update Meet Up
    - Allow users to update/reschedule their appointments
    - Cost: 3 days
    - Priority: Medium
- Wallet UI
    - Display wallet and user funds
    - Cost: 4 days
    - Priority High
- One time payments
    - Setup single payments/donations
    - Cost: 4 days
    - Priority High

Updated Planning Document ITR 3:

Throughout iteration 3, our team took strides to enhance the functionality and usability of our application. We recognized the importance of ensuring a smooth user experience and thus incorporated several additional user stories and functionalities.

These include:

- editing username and password
- signing out of an account,
- having the ability to unlike a liked dog
- being able to 'go back' on a dog accidentally liked or passed
- adopting a dog user is interested
- being able to view, cancel, and reschedule multiple appointments with the same dog
- rating a poster

In addition to these, we implemented JUnit tests, integration tests, and end-to-end tests for all new functionalities, and added more tests for some old user stories, to ensure our application is bug free and operates smoothly across different scenarios.

Furthermore, we refactoring and optimization was done in this iteration. This involved removing unused methods and tables from our database, as well as rewriting certain methods to improve processing time, especially considering the substantial amount of data in our database.

By focusing on both feature expansion and technical refinement, we aim to deliver an application that not only meets but exceeds user expectations.

Final Iteration 3 user stories:
https://docs.google.com/spreadsheets/d/1Dq8ehBI6wbeJzSBOjgHPSfc11V772wXSgLKp8zOfzGU/edit?usp=sharing
A pdf copy of user and developer stories is also uploaded to github under the ITR3 folder.

Screenshot of final Iteration 3 user stories:

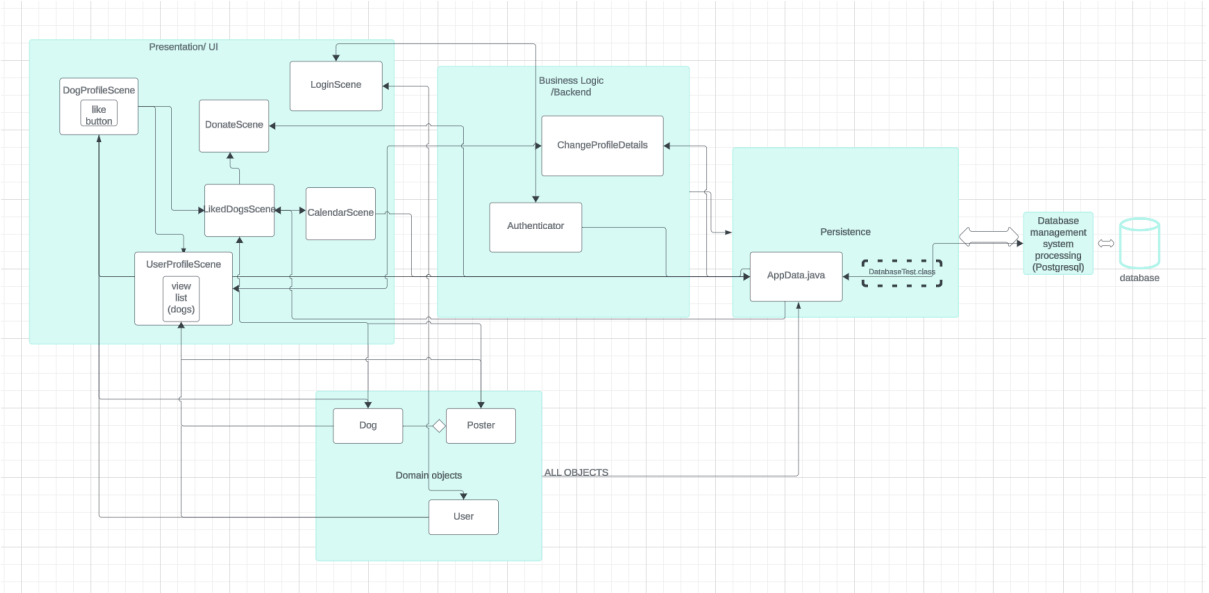
Category	User Story	User Perspective	Main Developer	Duties (For more than 2 main developers)	Iteration	Expected Time (Days)	Actual Time (Days)	Priority
User registration/Login	Register an account	As a new user, I want to register for an account so I can save my preferences and adoption interests.	Isaiah Ekaterina	Isaiah: DB calls to register account Ekaterina: GUI and error handling	ITR1	3	2	High
	Log into account	As a returning user, I want to log in to access my profile, preferences, and interactions history.	Isaiah Ekaterina	Isaiah: DB calls to log into account Ekaterina: GUI and error handling	ITR1	3	2	High
	Edit Username and password	As a user, I want to have the ability to edit my username and password if need be.	Zainab		ITR3	3	3	Low
	Sign out of account	As a user, I want an easy way to securely and safely log out of my account.	Connor		ITR3	2	3	Low
Liking and Adopting Dogs	Have the ability to unlike a dog	As a user, I want to be able to unlike a dog if I change my mind for any reason.	Yuqian		ITR3	2	2	Low
	Swipe through dog profiles and like/pass on them	As a user, I want to swipe through dog profiles so I can like or pass on them according to my preference.	Ekaterina	Ekaterina: GUI, and logic for liking and passing on dogs	ITR1	4	3	High
	View information on dog: image, attributes (size, sex, energy level, age), tags, name, biography	As a user, I want to view detailed information on a dog, including attributes, tags, biography, and name, so I can learn more about dogs I'm interested in.	Ekaterina		ITR2	3	3	Medium
	View liked dogs, and be able to view their poster	As a user, I want to mark dogs I like so I can easily find them later.	Ekaterina		ITR2	4	3	Medium
	Be able to 'go back' on a dog accidentally liked or passed	As a user, I want the ability to 'undo' a like or pass on a dog in case I made a mistake.	Yuqian Edson	Yuqian: Yuqian has worked on the logic for undo button. Edson: Edson worked on additional logic for the undo button including avoiding duplicates, not letting a dog be undone twice and ensuring undo dogs work with tag and attribute filtering.	ITR3	2	3	Medium
	Adopt a dog you're interested in	As a user, I want to initiate an adoption process for a dog I'm interested in.	Edson		ITR3	2	2	High

Meeting a Dog	View a dog's availability in calendar view (see when they are busy)	As a user, I want to be able to see when a dog is available to meet.	Edson Isaiah	Edson: Implemented logic for viewing calendar. Isaiah: All database calls	ITR2	3	5	High
	Book appointments with a dog and poster	As a user, I want to book appointments to meet dogs so I can determine if we are a good match.	Edson Zainab	Edson: Logic for booking appointments Zainab: Logic to book multiple appointments	ITR2	2	4	High
	Be able to view, cancel, and reschedule multiple appointments with the same dog	As a user, I want to be able to edit and view multiple appointments with the same dog so I can meet them multiple times at my convenience and gauge our compatibility.	Zainab		ITR3	2	3	Medium
	Be able to view current appointments with dogs, and have the ability to cancel or edit them.	As a user, I want to be able to view the dogs I have appointments with, and be able to cancel or reschedule them.	Yuqian Isaiah	Yuqian: Current appointment viewing logic, and editing logic (local changes). Set logic for the implementation of the appointment view page. Implemented the GUI. Isaiah: Wrote the DB calls to add appointments, edit them, and cancel them	ITR2	3	3	Medium
Sposoring Dogs	Send a donation to a dog (one time)	As a user, I want the option to make a one time donation to a dog, so that if I am unable to adopt, I can help support them.	Zainab		ITR2	3	3	Medium
	Have the ability to sponsor a dog with a recurring payment.	As a user, I want the option to make a reccuring payment to a dog, so that I could continuously support a dog until they are adopted.	Ekaterina Zainab	Zainab: Logic for sponsoring only one dog per user Ekaterina: Updated/fixed the logic to alllow user to sponsor multiple dogs. Implemented all DB calls, GUI and midware.	ITR2	3	3	High
	Have the ability to view current sponsored dogs, and cancel or edit them	As a user sponsoring dogs, I would like to have the ability to view my sponsorships and cancel or edit those payments	Zainab		ITR2	1	1	Low
Managing Finances	Deposit funds into virtual wallet	As a user, I want to add money to my wallet so I can sponsor dogs or pay for any adoption-related fees directly through the app.	Zainab		ITR2	3	3	Medium
Filtering and Matching	Filter dogs based on specific attributes (age, sex, size, energy level)	As a user, I want to filter dogs based on specific attributes (e.g., size, age, breed) so I can find dogs that match my living situation and preferences.	Isaiah		ITR2	3	4	High
	Sort the dogs in order of their compatibility with the user based on tag preferences	As a user, I want the app to recommend dogs based on my tag preferences to help me find a suitable dog more efficiently.	Isaiah Ekaterina	Isaiah: Implemeneted the algoritm and scoring system into the actual program Ekaterina: Created the dog scoring algorithm based off of dog tags, and implemented sorting	ITR2	3	3	High
Interaction with Posters	Rate a poster	As a user, I want to be able to review/rate a poster based on my experience with them.	Edson		ITR3			Low
	View a poster's information (other posted dogs, contact information)	As a user, I want to view a poster's profile, including their information and other dogs they have posted, to get more context about the dogs.	Ekaterina		ITR2	2	2	Low
User Preferences	Set attribute prefrences	As a user, I want to have the ability to set preferences based on my current living conditions (size, sex, age, energy level) in an easy way.	Isaiah Ekaterina	Isaiah: Implemented the logic to connect DB to local objects Ekaterina: Implemented the GUI and midware. Logic to locally update a user's preferences, and to only update when changed.	ITR2	2	3	Medium
	Set tag preferences	As a user, I want an easy way to edit and change my tag preferences.	Ekaterina Isaiah	Isaiah: Implemented the logic to connect DB to local objects Ekaterina: Implemented the GUI and midware. Logic to locally update a user's preferences, and to only update when changed.	ITR2	2	3	Medium
Optimizations	Smooth user experience	As a user, I want to be able to enjoy a smooth app experience, with little to no loading times.	Isaiah		ITR2	2	3	Low

Developer Stories:

Developer Stories	Main Developers
JUnit	Connor, Edson, Zainab, Yuqian
Integration testing	Connor, Edson, Zainab, Yuqian
Smooth browsing/loading	Isaiah
DB query methods	Isaiah, Ekaterina, Edson, Zainab, Yuqian
Setting up DB	Edson, Yuqian, Zainab
Populating DB	Ekaterina
GUI	Ekaterina, Isaiah, Edson, Yuqian, Zainab
Algorithm optiminzations	Ekaterina, Isaiah
GUI Refactoring	Ekaterina
Refactoring	Ekaterina, Isaiah, Edson, Yuqian, Zainab, Connor
UML	Connor
Database query optimizations	Isaiah
Establishing continuity between the pages (hyperlinks, navigation)	Ekaterina
Centeralizing GUI and GUI reusable components	Ekaterina
Integrating user stories into main	Isaiah, Ekaterina

Architecture:
https://lucid.app/lucidchart/de8647f7-5f05-497b-8531-29ee26e8938f/edit?viewport_loc=-1320%2C-452%2C3056%2C1794%2C0_0&invitationId=inv_4bae584d-ff4c-43fa-8df0-e71436bbf9ae (click the link to see the full architecture)



UML:
https://lucid.app/lucidchart/9468ce1b-8f0f-4dca-97df-480188da5da6/edit?viewport_loc=-9229%2C-3363%2C15112%2C7564%2C0_0&invitationId=inv_e196f7a8-9830-4a0f-b2af-77aa938ee63b (click the link to see the full UML)