**SW Engineering CSC648/848**

**ADSPets Adoption and Blog Site**

**Section 04 Team 01**

Khadija Khan - Team lead

Qin Chen - Backend lead

Katie Chang - Scrum master

Elyod Abraham - Frontend lead

Avitaj Singh Bhangoo - Github master

Brahamjyot Kaur - Frontend lead

**September 27, 2023**

| **Version** | **Date** |
| --- | --- |
| Milestone V.1 | 9/27/2023 |

**EXECUTIVE SUMMARY**

Dogs are often referred to as man’s best friend. Visit any shelter and there will be a plethora of dogs to meet and bring to their forever home, but not everyone is interested in adopting dogs. Man’s best friend could also be a cat, rabbit, bird, or reptile; the list is endless. Though dogs and cats are guaranteed to be at most shelters, some other animals may be less common. Going in person to multiple shelters is time-consuming and if one does not find what they need, they may give up on their plans to adopt their dream pet.

To combat this issue, a potential adopter can use an online pet adoption website from the comfort of their home to find their new best friend. ADSPets (Adopt Don’t Shop Pets) can solve all these problems and offer much more. Using ADSPets, users can search for whatever pets they are looking for, whether they want a cat, spider, dog, or all three! With our search feature, users can input what animal they are looking for, its age, and gender. On the pet’s adoption page, the user can also contact the shelter to show interest in the pet and then the shelter will soon be in contact with them to arrange a meeting. What separates ADSPets from other websites is our blog feature. In this blog, people who have adopted pets using our website may keep a blog of their experience with the pet they adopted and they may also write about their experience working with that certain shelter. With this blog, other visitors coming to our website can get an idea of what adopting a new pet would be like and also what will come from working with a specific shelter. Users can also immediately pay their adoption fees if they see a pet they know is truly the one, rather than waiting and risking the pet being adopted by someone else.

**PERSONAS AND USER STORIES**

1. **Billy David**

Twenty-six year old Billy is a full stack developer. He lives in a rented two bedroom apartment with his girlfriend. He owns modern tech gadgets like a smart TV, home automation devices, and the latest smartphone. He uses a car for commuting but prefers walking or biking during weekends. His girlfriend is a marketing manager at a renowned firm, and she often brings insights about user behavior and trends which sometimes sparks discussions about tech innovations. He spends weekends with his girlfriend. He likes to binge-watch movies or series during weekends with his girlfriend. He enjoys dining out in the evening, exploring new cuisines and places with his girlfriend. Occasionally, he likes to go to bars with his friends. He enjoys dining out in the evening, exploring new cuisines and places with his girlfriend. They are actively planning to adopt a pet, preferably one that's easy to manage and friendly. He is concerned about managing time between work, personal life, and a new pet. Unsure about which pet would be suitable for apartment living. Worried about leaving the pet alone when they go out for movies or dinner. Lack of clarity on the pet adoption process and post-adoption responsibilities. His girlfriend is allergic to certain breeds, so they need specific information before making a decision.

1. **Aria Smith**

Forty years old Aria is the mother of two children, a 10 year old son Jake and a 5 year old daughter Emma. Aria lives with her husband and children in their own house. They bought the house five years ago and are still paying the mortgage . She works as a part-time cashier at Target store and her husband Andrew owns a small construction company. On Sundays, she likes to go to church with her family. She likes to cook healthy meals for her family. In her free time, she likes to clean the house. Every morning, she wakes up early to prepare breakfast for the family and pack lunch for her husband(for his work) and kids( for their school). Mostly, Andrew drops off the kids at school. Afterward, she gets ready and heads to Target for her work. On her way to home from work, she picks up the kids from school. In the evenings, she assists her children with their homework. Her ten year old, Jake, has been asking for a dog for a year now. Jake loves to play with his friends’ dogs. Jake’s eleventh birthday is coming in a couple of weeks, and Aria wants to surprise her son with a dog on his birthday. Being a first time pet owner, she has many questions about the adoption process. Also, she wants a family friendly dog and dogs that would be a good choice to be around her five year old daughter. She does not have time to look at every shelter. She is tech savvy and wants a place where she can look at the available dogs/ puppies for adoption near her house.

1. **John Doe**

John Doe is a newly divorced man who doesn’t have any close friends or family. He moved to San Francisco after his divorce where he now works as an Air Traffic Controller in the San Francisco International Airport. It is a stressful job as it is one of the busiest airports in the world and he sometimes works double shifts as he doesn’t have anything to do at home - especially now that he recently lost his pet dog. John’s work peers have noticed his sluggish behavior and repetitive errors in his work. They know his dog passed away and that he is lonely, so they plan on helping him out so he can be sharper on the job and find some joy in his life. His friends don’t have the time to carefully find the right replacement and are instead only worried about finding another pet dog for John. They want a simple application that helps them find local pets and be able to read and learn about each of them. They can also add specific features to the pet they want. They want to immediately visit a pet they are interested in and have the ability to purchase it right then and there.

**User story #1**

As a tech-savvy developer who values quality time with his girlfriend, I want to have an easy-to-navigate pet adoption website that has detailed pet profiles including potential allergens or care requirements, so I can quickly find pets suitable for apartment living and ensure the pet is a good fit for both of us, especially considering my girlfriend's allergies.

**Constraints:** The website should be mobile-responsive and intuitive, offering filter options for apartment-friendly pets, with a fast load time to ensure a seamless browsing experience. Each pet profile should provide comprehensive details including breed, size, temperament, and any allergenic attributes, presented in a clear and concise manner.

**User story #2**

As a busy mother of two and a first-time pet owner, I want to easily identify and select family-friendly dogs on the website, so that I can surprise my son with a pet that will seamlessly blend into my family setting without having to visit multiple shelters.

**Constraints:** The website should have a user-friendly interface with clear labels for family-friendly dogs; the website should offer a filtering system that helps Aria narrow down options based on her specific needs; should provide comprehensive information on each pet, including temperament, age, and compatibility with children, ensuring she can confidently make a choice without physically visiting multiple shelters.; pay adoption fees and book the pet before visiting a shelter; the website must feature a dedicated communication channel or forum where shelters and potential pet owners, especially first-time adopters, can directly interact and address any queries or concerns in real-time, fostering a smoother and more informed adoption process.

**User story #3**

As we are busy with our own lives but still want to help John, we want a simple way to find all the local dogs and their descriptions/behaviors. We want to be able to quickly select and purchase them as well.

**Constraints:** The app should reassemble many of the apps that are used today - like compatibility with different devices and a simple, clean UI. The app should have a response time within a few seconds for any submission and when someone wants to purchase a pet, there shouldn’t be any conflicts with other users also trying to buy those pets (the app should manage these concurrent events). The app should have a simple filter feature for the pets; it should also have a safe and secure payment system.

**DATA DEFINITIONS**

1. Users Attributes: id(PK), username, firstname, lastname, email(unique), age, phone, password, sid(FK)
2. Animals: id(PK), name, breed, age, species
3. Post: id(PK), title, message, picture, createby, uid(FK), sid(FK), aid(FK)
4. Shelter: id(PK), name, address, email(unique), phone.

User-Post relation: A user can post as many as posts.

Shelter-Post: A shelter can post as many as posts.

Animals-Post: An animal can have as many as posts.

User-shelter: A user can only belong to one or zero shelter.

Shelter-User: A shelter can have as many as users.

**FUNCTIONAL REQUIREMENTS**

1. **User**

1.1 Users must set up individual accounts for access to the database system

1.2 User must have the ability to reset password if they forgets their password

1.3 Users are required to update their contact information and other personal information

1.4 Users' account activity logs will be available for security monitoring

1.5 Users must be assigned to roles with varied levels of access

From our user stories, all of our personas will be users who will have access to the website to be able to make use of these features.

**2. Account**

1.1 A user can create only one account

1.2 A user account must be accessible across devices.

1.3 A role can only be linked to one account.

1.4 A government agency must verify a professional's account.

1.5 A account's privileges are determined by its roles.

The above users will be able to make accounts where they can keep track of pets they want to save or potentially adopt.

**3. Admission and Registration**

1.1 The system should support the intake of various animals

1.2 A special identity number needs to be given to each pet.

1.3 Animals will be registered with a name, birthday, species, location

Shelters will be able to use this feature to keep a database of their pets. With a large database, users will be able to find any pet they want. People like Billy and his girlfriend will be able to find specific animals that won’t cause allergies to adopt for them.

**4. Adoption Procedure**

1.1 Users can submit adoption requests for particular animals.

1.2 Application reviews and approvals can be done by staff.

1.3 Multiple users can apply for one pet.

Busy people like John can submit applications from anywhere since they will all be processed online. Applications can be submitted for multiple pets.

**5. Blog**

1.1 Blog will be able to host many posts

1.2 Registered users will be able to make posts on the blog

1.3 Blog will feature users accounts on animal adoption and care

Moms like Aria can check the blog to find pets that would be best for her two kids. Along with that, she would be able to see how other people just like her had their experiences with those animals and what they did to prepare to adopt them.

**6. Animals**

1.1 Many types of animals will be posted on the adoption website

1.2 Each animal will only have one post

1.3 Animals will have key identifying information displayed on their profiles

If someone wants an older pet, small pet, or a specific color pet, this information will be available to sort through on our website so any of our users will be able to find the pet they need.

**NON-FUNCTIONAL REQUIREMENTS**

1. **Scalability**

1.1 The system must be expandable to handle potential growth, such as an increase in the quantity of users and animals.

1. **Reliability**

1.1 The system must have less downtime and be accessible all the time.

1.2 To protect against data loss, it must contain backup and recovery features.

1. **Security**

1.1 The system has to implement systems for authentication and authorization.

1. **Performance**

1.1 When arranging appointments or conducting pet searches, the system needs to respond promptly.

1. **Usability**

1.1 The system is simple to use.

1.2 It is accessible to all users.

1. **Data Security**

1.1 The program must comply with data privacy laws and guarantee the security of user and pet data.

**COMPETITIVE ANALYSIS**

| Competitive features | Things the website doesn’t have. | Our Plans |
| --- | --- | --- |
| Donate Function - In some pet adoption websites there is a donate button, however it isn’t directly through the site. | They don’t have a place to pay for the adoption fee. | On our website we are going to add a feature where the person who want to adopt a pet to pay through our website . We are going to make it as secure as we can. |
| Search Function - They have a function where we can search what type of breed if dogs or cat we want. As well as where the cat is currently at. | However, they don’t have a place where we can pick the specific age of the pet we want. It also mostly condense into one category each. | On our website we will list out all the available pets as opposed to a “other pets” feature. |
| Blog Function - On all the adoption website their blog is only about news of the update of the rescue center as well as what new features is in the adoption website. | There is no place for first time pet owners as well as people looking for pets to communicate with people. | On our website we wish to have a place where the shelter as well as first time pet owner/ people looking for pets to communicate with each other so if they have question they can get answer right away. |

Summary:

The main advantage of our website is that it will make it easier for people looking to adopt a pet to pay when they find a pet they want. The blog function we have in mind will allow first time pet owners as well as people looking to adopt a place to get help as well as a place to talk about their pet. This will help pet owners connect with each other as well as a place where people can ask for quick help instead of waiting on call for a very long time. For the search function, it is to make it easier to navigate on which type of pets they want. On other pet adoption websites it is very confusing to navigate if we do not know what type of pet we are looking for.

**HIGH-LEVEL SYSTEM REQUIREMENTS**

Software:

* React (Front-end framework)
* Express with Node (Back-end framework)
* SQL (Database System)
* Git/GitHub (Version Control System)
* Testing Frameworks (TBD)
* VS Code (Source-code editor)

Deployment:

* Caddy (Web server)
* Amazon Web Services (Cloud platform)
* Docker

Miscellaneous:

* Supported Browsers: Chrome, Firefox, Safari, and etc.
* Mobile Responsiveness: Bootstrap (CSS Framework)
* External APIs: TBD

**TEAM**

Khadija Khan

* Team lead
* **Study plan**
  + Get AWS instance and DB setup by Sunday
  + Create IAM roles and show members how to access account

Qin Chen

* Backend lead

Katie Chang

* Scrum master
* **Study plan**
  + Learn REACT and also use Figma is make a prototype of the website with the frontend leads.

Elyod Abraham

* Frontend lead
* **Study Plan**
  + Learn React and some Express/Node

Avitaj Singh Bhangoo

* Github master
* Study plan

Doing a git course online and getting familiar with Express/ Node, my SQL.

Brahamjyot Kaur

* Frontend lead

**CHECKLIST**

1. Meeting time
   1. Monday’s 8:00pm online
2. Scrum Master
   1. Katie
3. Github master
   1. Avitaj
4. Local github environment
   1. Team has setup
5. Team agreed on using all tools
6. Backend/Frontend frameworks
   1. Backend frameworks
      1. Team working on getting access to online instance and database
   2. Frontend
      1. Working on learning how to use Figma for our mockups