**Describing what the program does**

The program we plan to make is a Pet adoption assistance system, this will be used to help locate animals (dogs,cats,reptiles,birds,etc.) who are up for adoption from local shelters which the user can view from the data pulled from these agencies and search from specified criteria to find a suitable animal they are looking to adopt. The program will give details on the animal the user is looking at such as the breed or type of animal, medical records of the animal, if the animal was spayed or neutered and if they have had their shots for rabies. The program will also include any known past trauma the animal might have experience ie. being part of a “puppy mill” or if it had abusive owners prior to being in the adoption center. This program will also help with the scheduling of meetings with the animal as most people would like to interact with the animal if they intend to adopt it and this program will help with the scheduling of these meetings to ease the process for the users and agencies.

**World Assumptions:**

Users have access to the internet and suitable devices (e.g., computers, smartphones).  
Users have a known shelter/adoption center within a certain distance in which they can physically go to meet with the animals.  
Users have a suitable home for the animals to live in.

**What the User needs to use program**

Users are looking for a central location where they can easily examine animals that are up for adoption. They want to be able to narrow down their search results based on particular factors like the kind of animal, the age, and the size. Additionally, they require access to in-depth profiles that provide knowledge about each animal’s background and medical history. A communication tool that would let prospective parents get in touch with adoption agencies directly or arrange visits would be an essential component of this system. Users put strong security measures first in order to safeguard their personal information and guarantee that all communications are private and confidential. Users’ insistence on security is an unavoidable requirement in the current digital era, where data breaches and privacy concerns are pervasive. To stay ahead of potential dangers, they anticipate the platform to include cutting-edge encryption techniques, recurrent security audits, and regular system updates. Furthermore, there is a higher expectation that the platform will abide by international data protection laws given that many users will be disclosing sensitive information like their location for proximity-based searches and personal information when setting up profiles. Trust is built and a more engaged and active user base is encouraged by the certainty of a secure environment.

**User Requirements:**

User-friendly interface for easy navigation and interaction.  
Personalized profiles that allow the adoptees to set preferences for animals.  
The ability to sort animals based on type,breed,medical history,etc..  
Communication features for any questions or help needed with the adoption process.

**Requirements for the program**

The program will require the linking of several databases for it to function properly as well as a gps system to help locate the nearest adoption service to the person. The databases will be the list of the agencies for adoption, the list of animals categorized for what kind of animal they are ie(cats,dogs,reptiles). Another database for the general animals profile for info such as where they were rescued from, medical info of the animal, if it possesses a microchip tracker, and if it was spayed or neutered. Then a database for the user information to be stored for their accounts which will have their name, contact info ie.(email,phone,address). Then a database for keeping track and updating for scheduling and availability of the animals. This will also require a password system for the user to login and also a hashtable for the security of the users login and password. All of this is for the program to find an animal that matches the criteria of what the user is searching for and to give them a location that is not to far out of the way where the user can’t reach it easily such as giving the user from New York an animal recommendation from Ohio.

**Specifications and Interface Needs:**

Responsive application accessible across devices.  
User authentication and secure data storage.