Purr-fect Paw Placement

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CSE 344 Software Engineering

Software Design Report

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Introduction

1. Purpose of the document – What is this document for?

This document serves as an in-depth analysis report for the development of a Pet Adoption System, designed to address the pressing issues surrounding stray animals in Turkey. It outlines the background of the domain, the motivation behind the project, and articulates how the proposed system aims to mitigate existing problems. Additionally, it provides a structured overview of the document, delineating the various sections and their respective contents.

2. Purpose of the system – What is your proposed system for?

Our Pet Adoption System, The Purr-fect Paw Placement, is a pioneering solution poised to revolutionize the way stray animals are cared for and matched with prospective adopters in Turkey. Anchored on a robust set of functional requirements, this system offers a seamless and intuitive user experience, benefiting both shelters and individuals seeking to provide loving homes for animals in need.

3. Describe your proposed new system in terms of its users and the features provided to the users.

Registration System

General Users:

Registration Process: Users register by providing:

- First Name
- Last Name
- Email
- Phone Number
- Address
- Unique Username
- Password

Shelters:

Registration Process: Users register by providing:

- Government-issued practice license number (acts as unique username)
- Password

Validation: The practice license number is validated against a national database containing all practice license numbers for shelters in the country.
If the Shelter ID is verified as valid, the shelter's information is automatically transferred from the government database to the Pet Adoption database, and the shelter account is created.

Pet Adoption System

General Users:

Search and Filter: Users can search for pets based on:

- Species
- Breed
- Gender
- Age
- Allergies
- Location

Availability Indicator: Reflects the current status of each listed animal as set by the shelters.

Shelters:

Create Listings: Shelters can create detailed listings for pets available for adoption, including:

- Species
- Name
- Age
- Breed
- Disabilities
- Pictures
- Allergies
- Availability
- Gender
- Health Status
- Videos

Adoption Application System

General Users:

- **Application Form:** Users can access an adoption application form pre-filled with their basic information.
- **Application Checks:** The system checks if the user has previously submitted an application for the specific pet.
- **Form Details:** Users can complete the remaining questions, including:
  - Number of Children
  - Number of Pets
  - Residence Type
  - Income Range
  - Activity Level
  - Time Availability
  - Prior Pet Experience
  - Additional Notes

Shelter:

- **View Applications:** Shelters can view submitted adoption applications for pets in their shelter**.**

Description of the System Users

General Users:

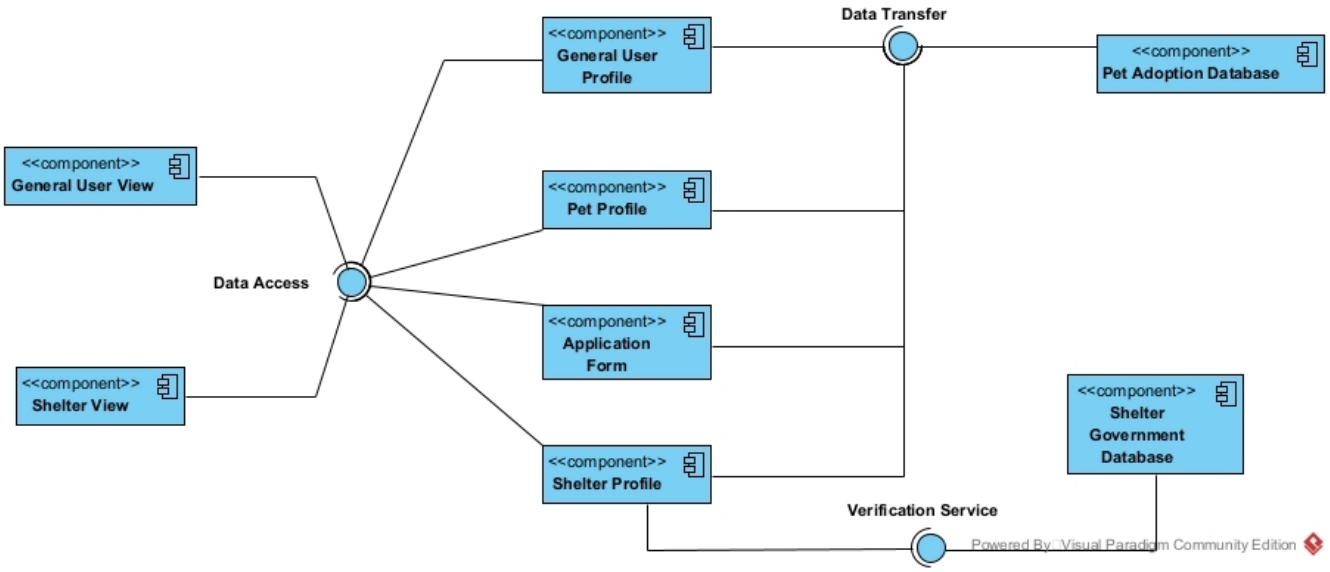
- **Registration:** Provide personal details and create login credentials.
- **Are able to:**
  - Log into the system
  - Browse pet and shelter listings
  - Filter their feed based on preferences
  - View detailed pet and shelter profiles
  - Fill out and submit adoption application forms
  - Log out of the system

Shelters:

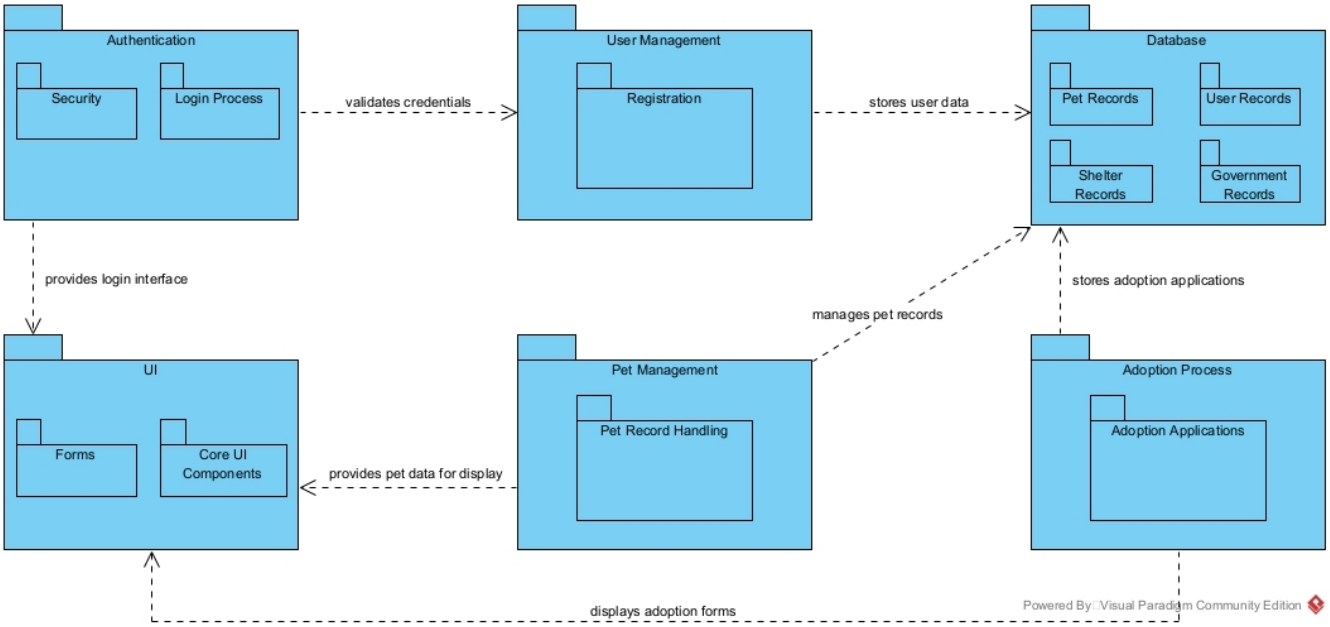
- **Registration:** Provide Shelter ID and create login credentials.
- **Are able to:**
  - Log into the system
  - Create and manage profiles for animals available for adoption
  - Update the availability status of pets
  - View and edit their own pet records
  - Access and review adoption application forms
  - Delete pet profiles when necessary
  - Log out of the system

Systems Architecture Models

1. UML Component Diagram (Software Architecture)

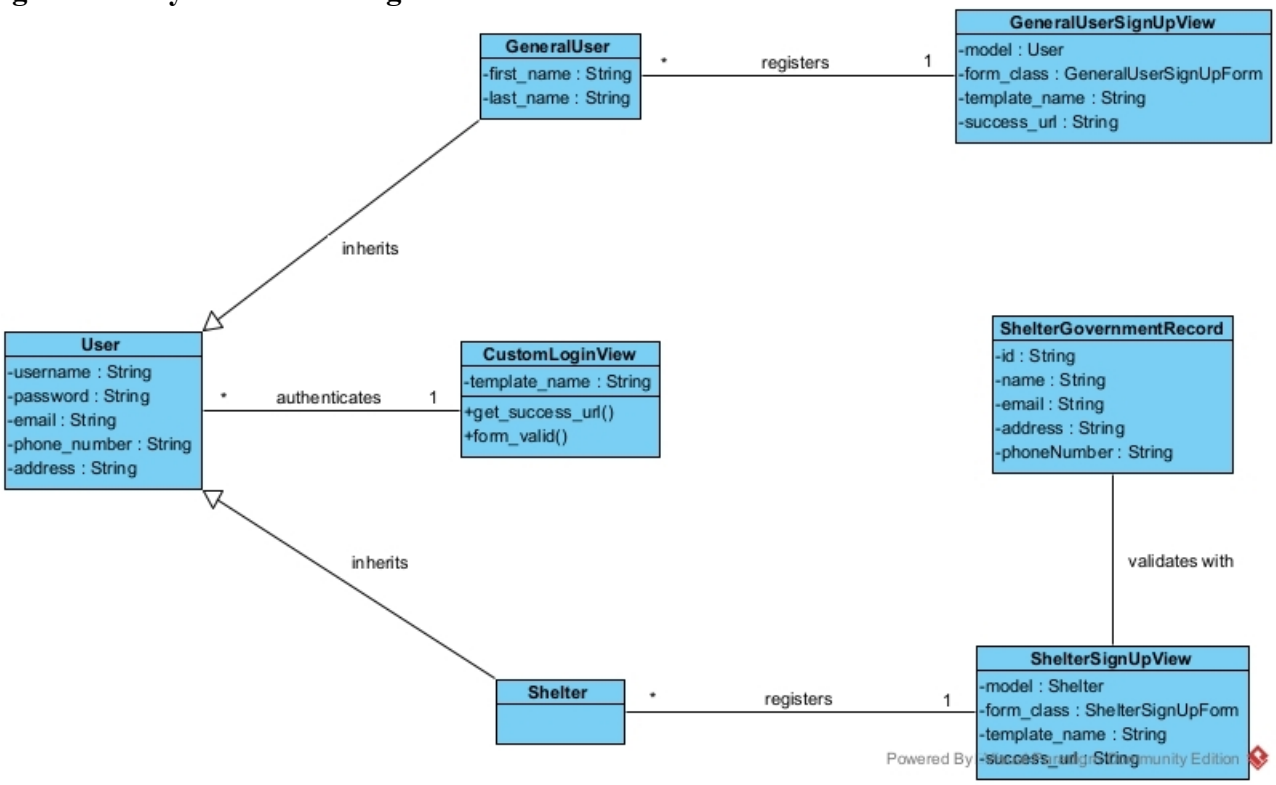


2. UML Package Diagram (Physical Architecture)

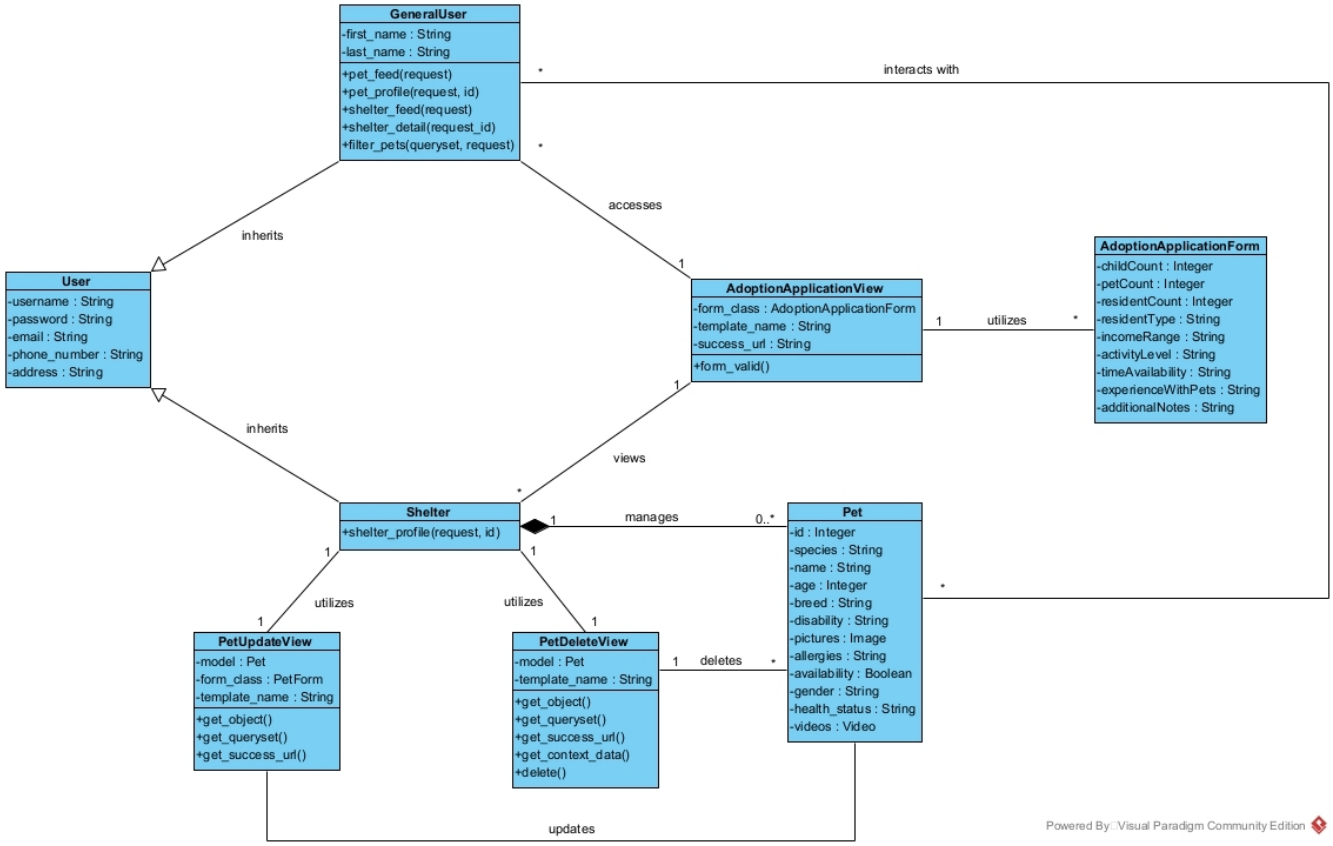


Detailed design class diagram (Code Structure of the Software System)

Registration System Class Diagram



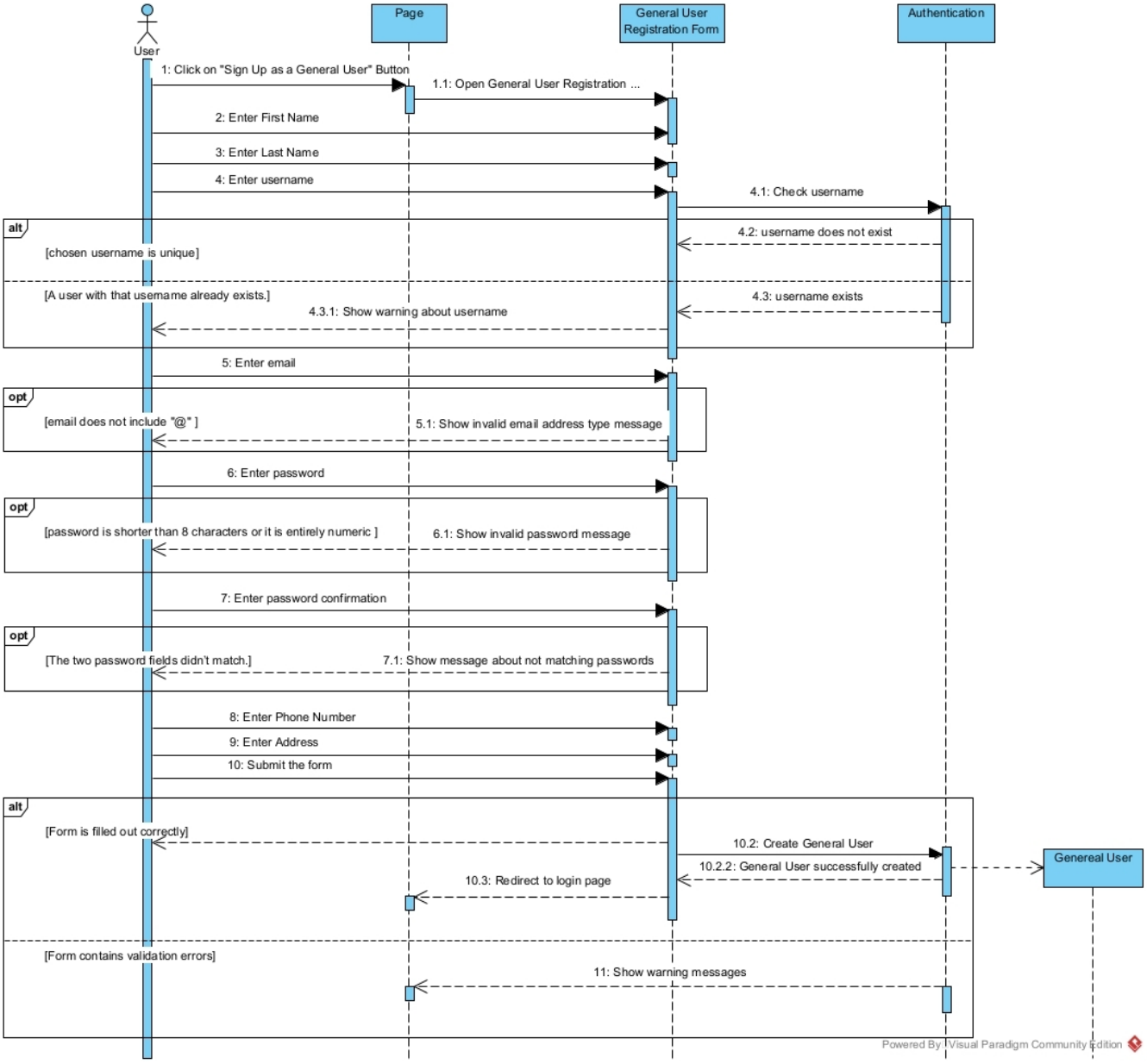
Pet Adoption System Class Diagram



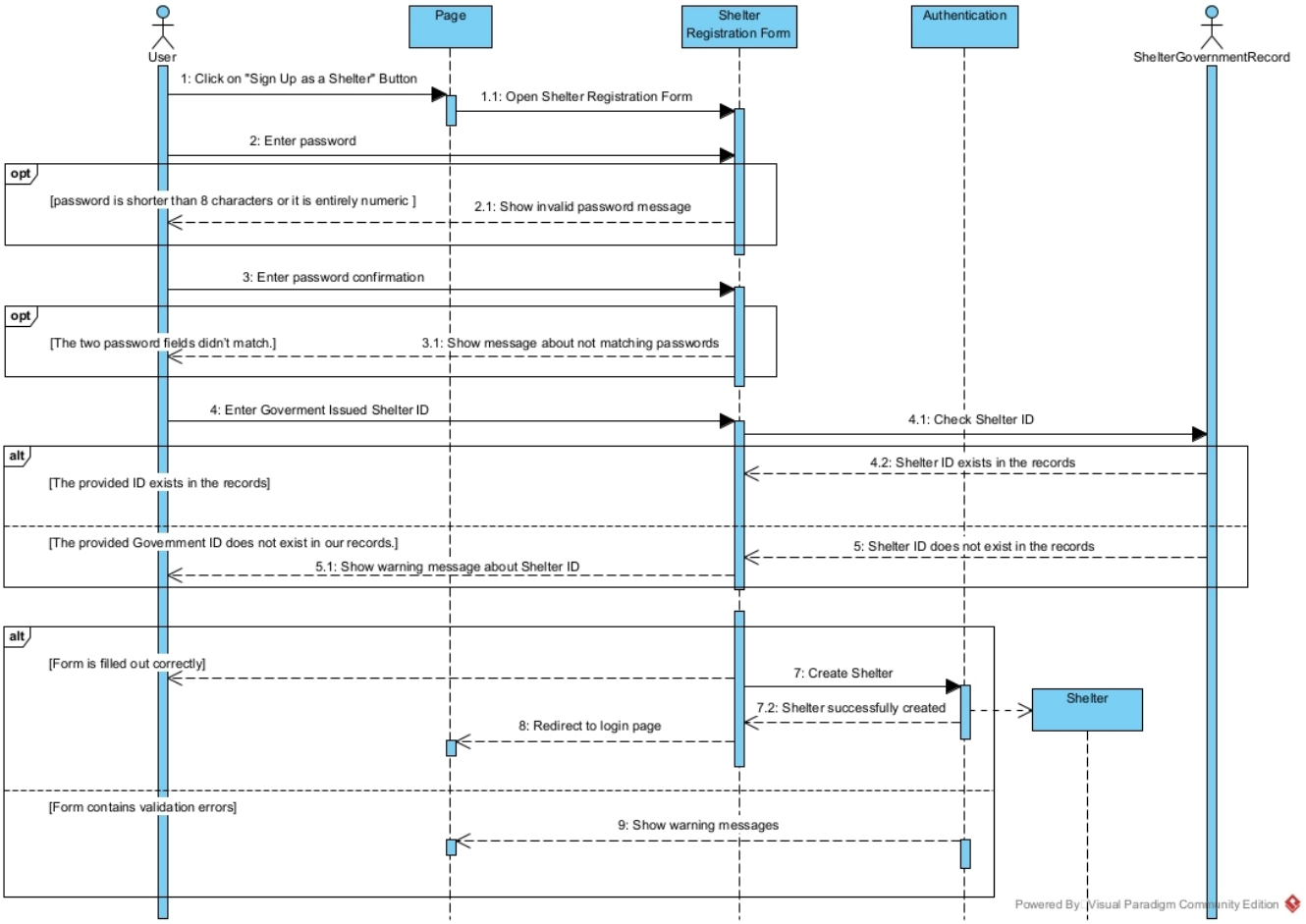
Dynamic Models

1. Sequence Diagrams

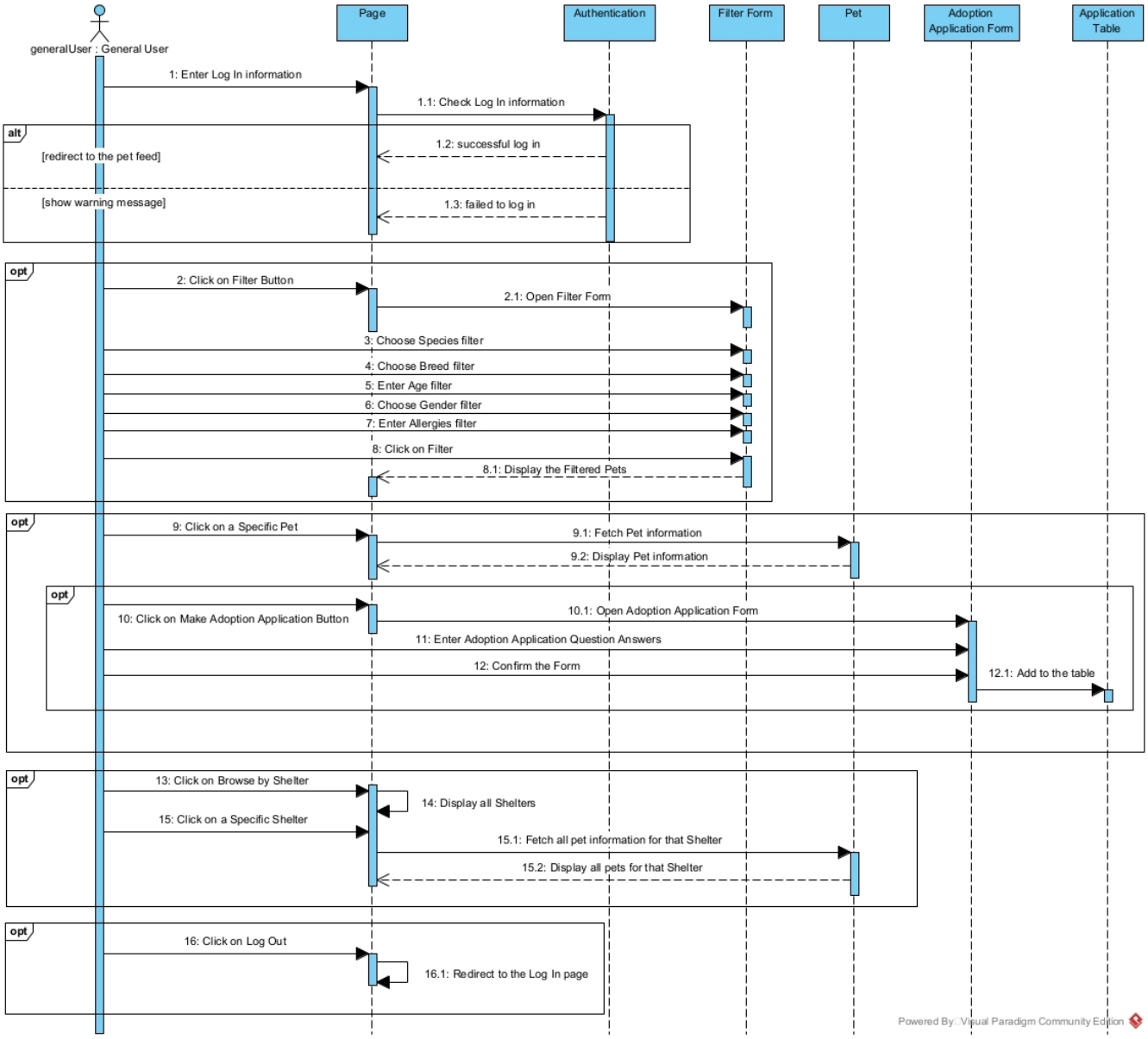
General User Sign Up Sequence Diagram



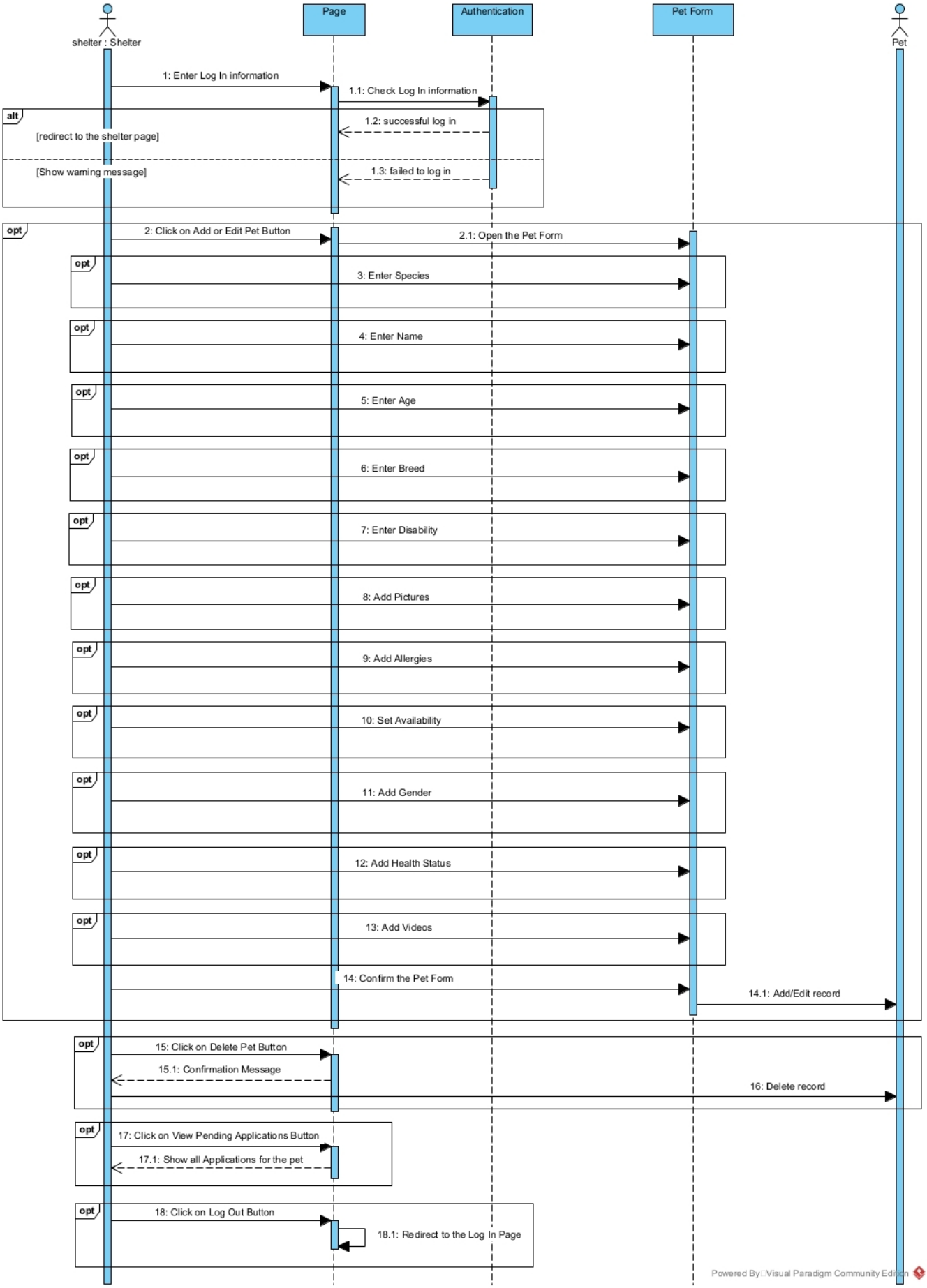
Shelter Sign Up Sequence Diagram



Pet Adoption System For General User Sequence Diagram

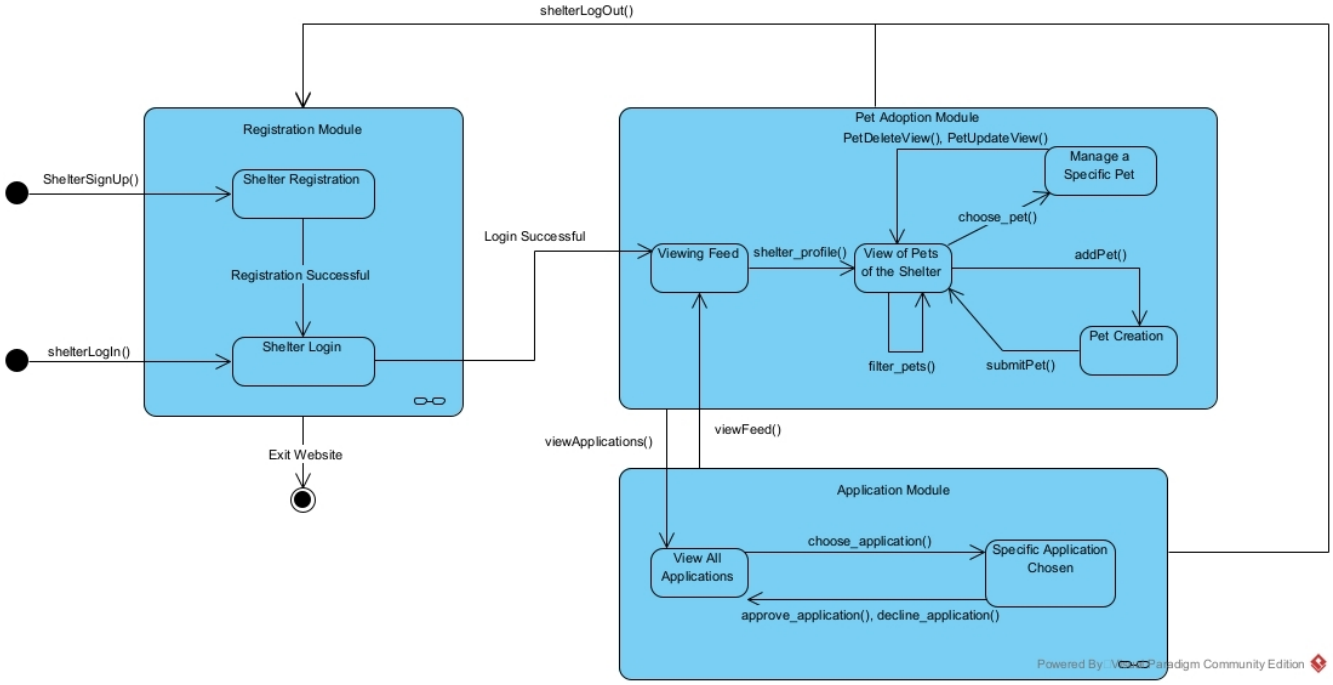


Pet Adoption System For Shelter Sequence Diagram

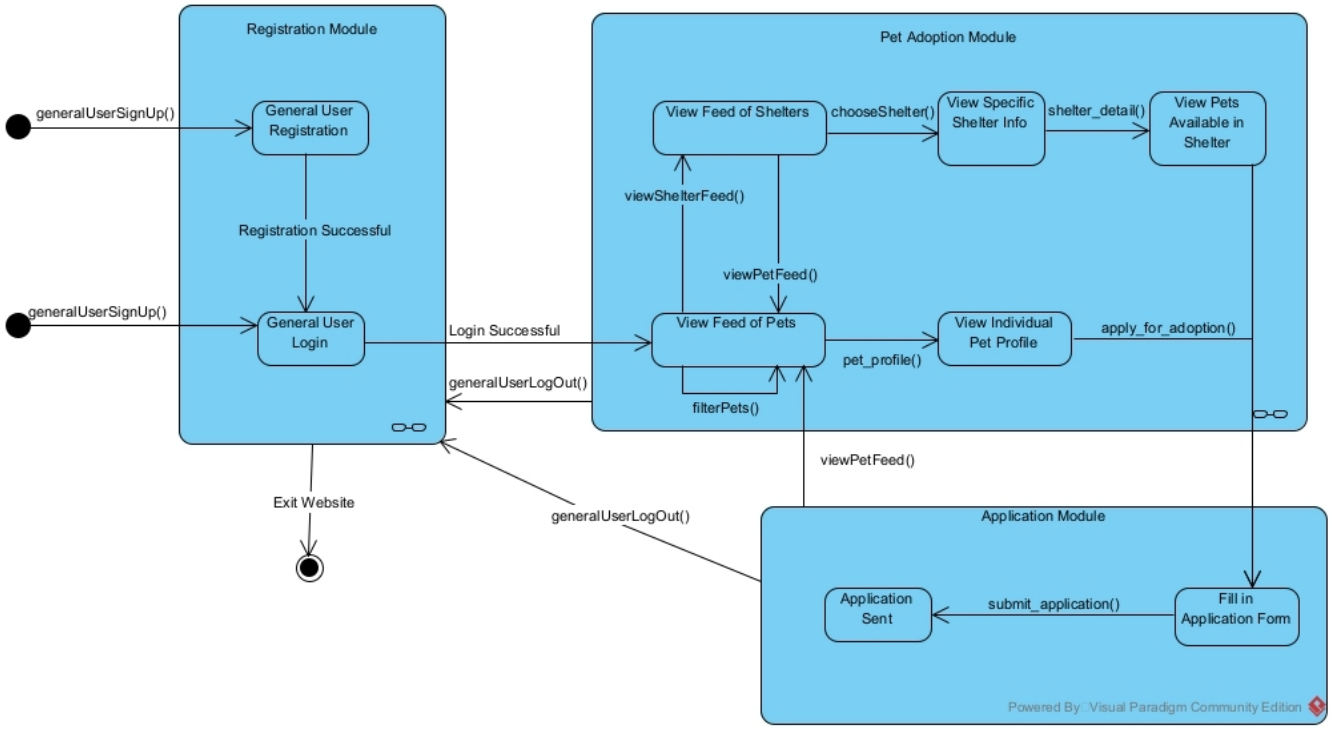


2. State Diagrams

Shelter Operations State Diagram

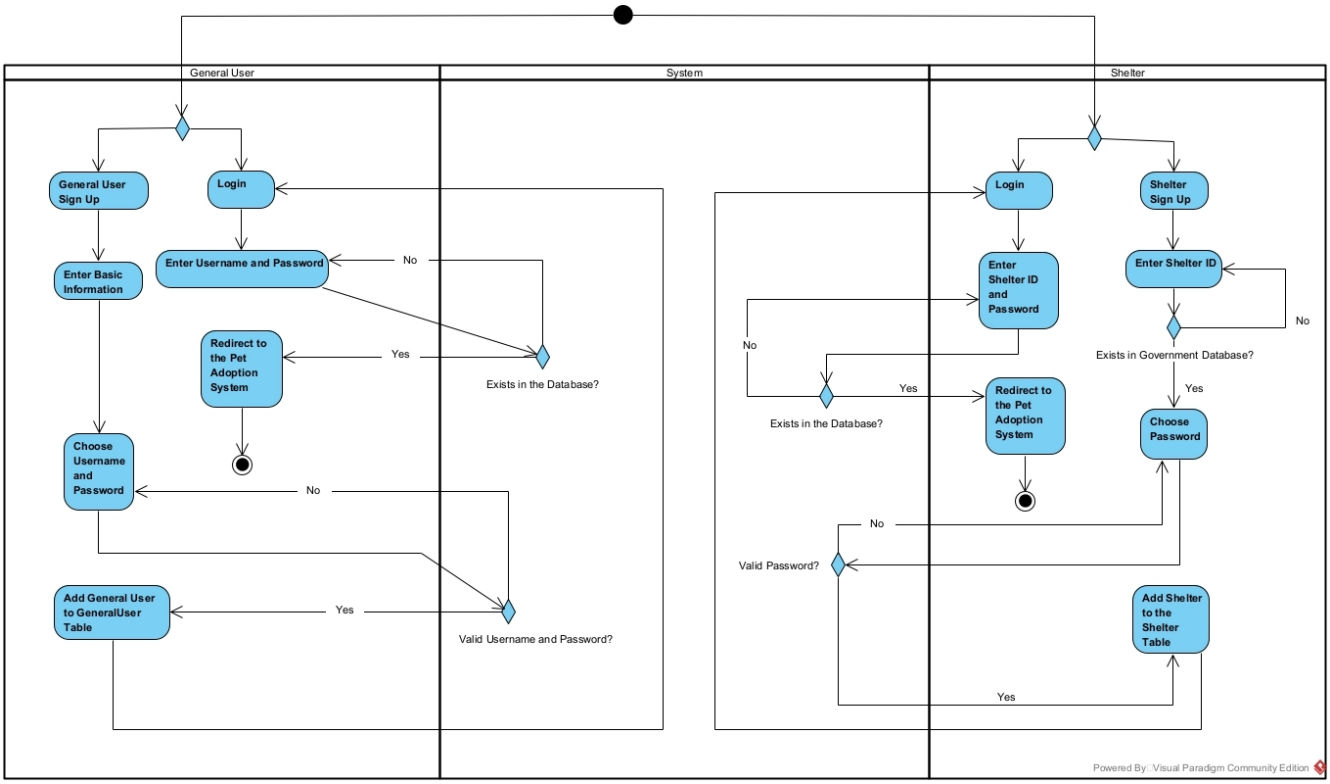


General User Operations State Diagram:

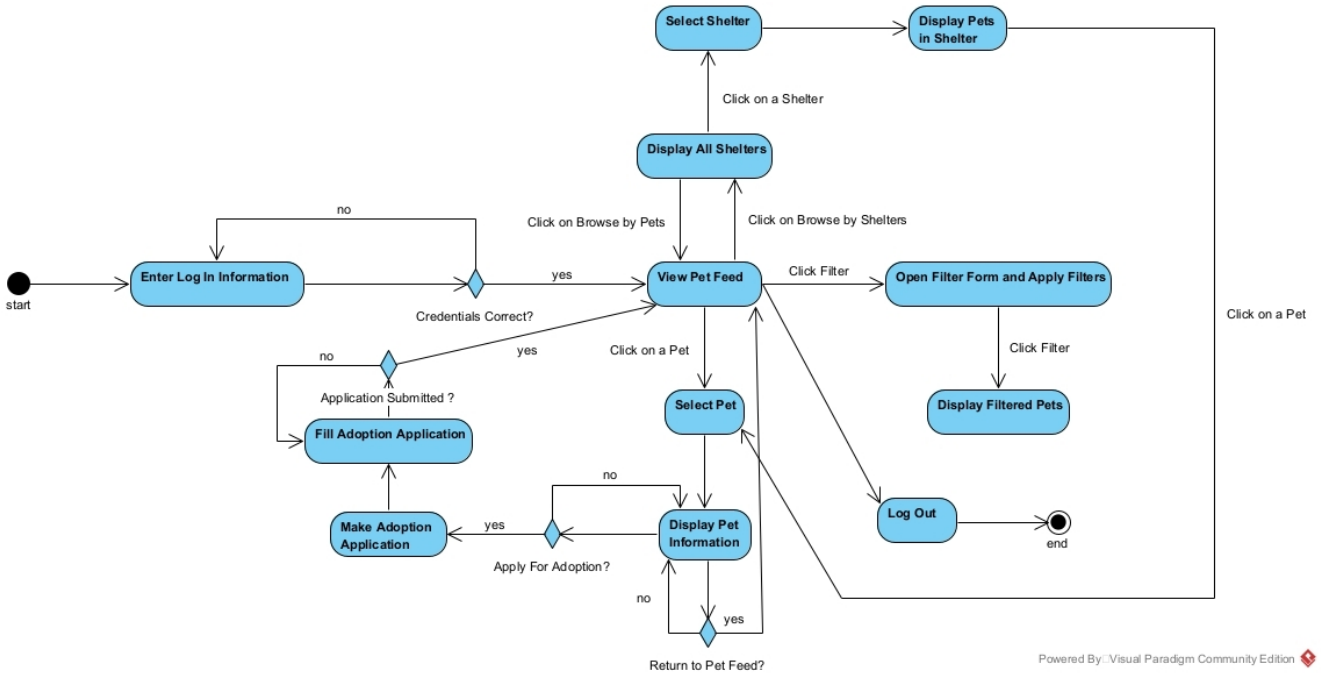


3. Activity Diagrams

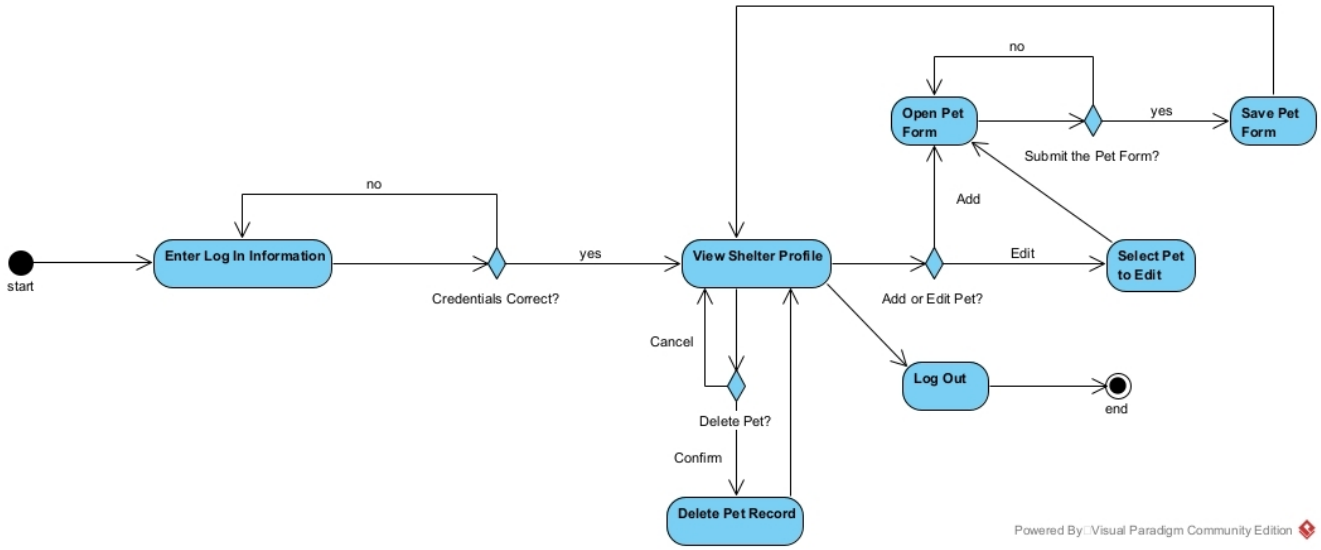
Registration System Activity Diagram



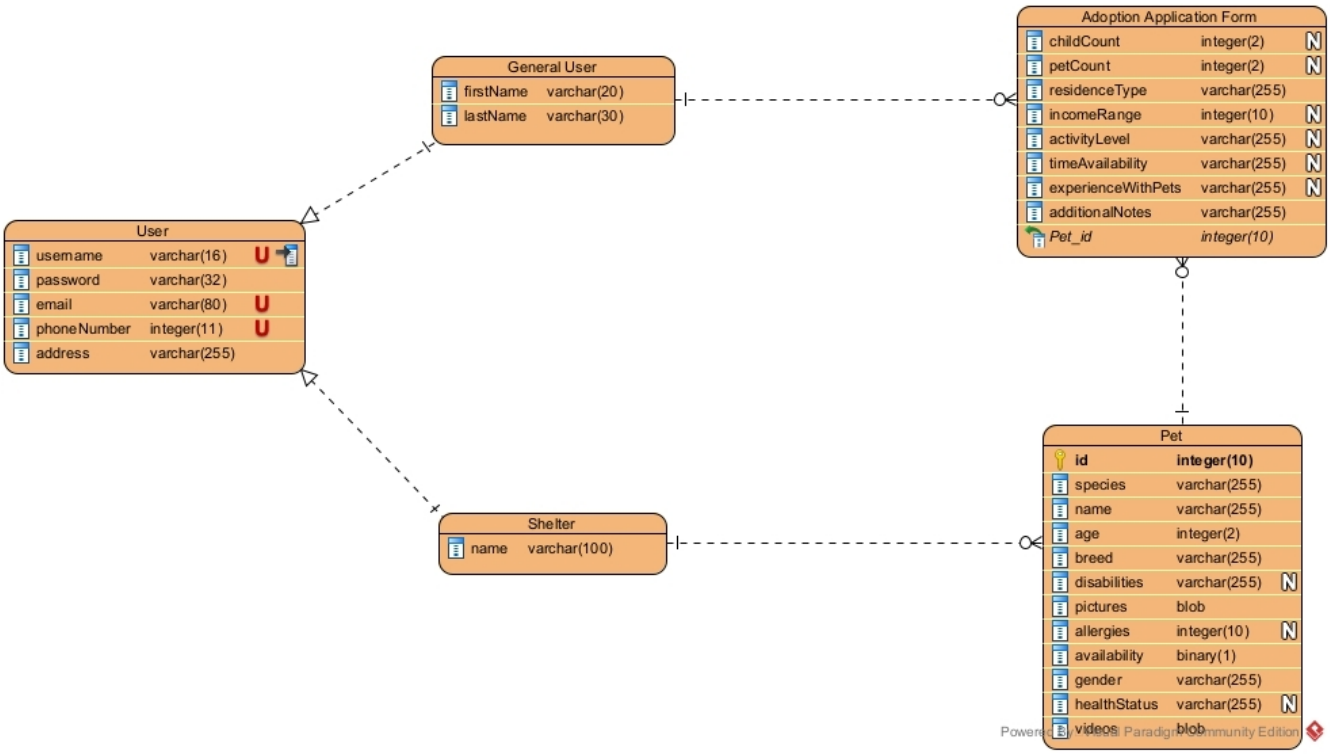
General User Pet Adoption System Activity Diagram



Shelter Pet Adoption System Activity Diagram



Entity Relationship Diagram



Glossary and References

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