**PAMANTASAN NG LUNGSOD NG MAYNILA**

(University of the City of Manila) Intramuros, Manila

College of Engineering and Technology

Computer Science Department

CSC 0321-1

SOFTWARE ENGINEERING 2

TITLE:

**PuppyLove: Dog Showcasing Application for**

**Adoption and Foster Care**

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**CHAPTER I: INTRODUCTION**

**Introduction**

Stated in the House of Representatives, House Bill No. 4436, Introduced by Eric L. Olivarez, The Philippines stands out as East Asia’s biggest dog owner, with six times the per-capita number of pets seen in China which is the largest country in the said part of the continent. Statistics in 2009 shows that in the Philippines, there is one pet dog for every 8 people. This number continuously rises as remittances from migrant workers steadily increases thereby boosting disposable income that affords pet spending.Approximately 6.5 million companion animals enter animal shelters nationwide every year. Of those, approximately 3.3 million are dogs and in the smallest city in the metro, Marikina City, their records show that they put down an average of 200 dogs every month. Puppy mills are facilities and individuals who mass-produce puppies for the pet shop industry, online selling, or other retail purposes. Puppy mills suffer from poor oversight, control, and regulation. Ill health, genetic defects and/or negative behavior traits are often overlooked in favor of financial profit. The dogs used for breeding purposes are often insufficiently cared for, inhumanely housed, and lacking adequate veterinary care.

With these bits of information, anyone can safely assume that lessening dogs in the streets and possibly lowering it to nothing is possible with having more room in shelters by increasing the number of dogs that goes out of the shelter and into the homes of foster parents or adopting parents. To help quickening the process, researchers from BSCS 3 – 1 of the Pamantasan ng Lungsod ng Maynila created an application titled “Puppy Love”.

Puppy Love is a smart phone application that helps Filipinos look for dogs available for adoption or foster in animal shelters that exists in the Philippines instead of buying them from puppy mills.

The study aims to develop a software that eases the way potential dog adopters or foster parents look for their dog, to help the shelters rescue more dogs in the streets by increasing their reach to foster parents and in turn gives them more space in their shelters for new dogs. The researcher’s application is a platform to showcase dogs to their future homes.

**Objective of the Study**

The main objective of this study is to develop a mobile application that bridges the gap between foster/adoption shelters and possible adopters or foster parents, making space in shelters to help street dogs find a home and lessening the population of street dogs.

**Specific Objectives**

These are the objectives of the study base on the problem stated:

1. To create a mobile application that helps future dog owners find the dog they want to adopt by showing them cards containing pictures and information about the dogs given by shelters.
2. To create a mobile application that helps dog shelters widen their reach by giving them a platform to showcase their dogs to users.
3. To create a mobile application that helps people who cannot provide for their dogs find a good home that can foster them.
4. Help dogs in shelters find a home and dogs in the streets find a shelter to lessen dog euthanasia population

**Significance of the Study**

This section will provide a brief description on the significance of using the proposed mobile application named Puppy Love, a platform where people who is looking to adopt or foster a dog, see potential dogs they might adopt, and where shelters can provide information about their dogs to show potential adopters to save dogs in the streets by freeing space in shelters.

The success of the study would benefit the following:

1. **Users –** The application aids users to look for the dog they want to adopt or foster by showing the details and pictures of each dog available for adoption, then possibly making the adoption process quicker.
2. **Shelters –** The application helps shelters showcase available dogs for adoption or foster in their care, and it helps them to rescue more dogs as more space is freed from their shelters.
3. **Future Researchers and Developers–** The research paper will be available to help future researchers and developers with material regarding the said topic and possibly apply it into another one, it can also serve as a steppingstone for further innovations when making their own application.

**Scope and Delimitations**

The researchers created the application to make looking for dogs a lot easier and accessible since smartphones are more accessible, hence making a mobile application particularly android phones with Android OS version 6.0 and above. The application will be used by people in the Philippines who wishes to look for a dog available for foster care, and it will also only target dog shelters from the Philippines since the target location of the application is only in the Philippines.

The application will allow dog shelters and possible users who wishes to post their dogs for adoption to provide data or information about dogs and a chatting system where both adopters and shelters can talk about the adaptation or fostering process, however, the developers was not able to put a reporting system whenever users attempt to sell dogs. The application only stands as a middle-man or a showcase for dogs who is available for adoption.

The developers were not able to implement also the filtering system to pick which type of dog they want to see and the notification system where users can receive a notification whenever the type of dog they want to adopt is available, the reason for this setback was because of the pandemic and one of the developers caught Corona virus which postponed the project for a month.

The application will allow dog shelters to provide data or information about dogs and give users information about the adoption process, and data will only exist if shelters or people generate data since the application only stands as a middle-man or a way to showcase dogs

**CHAPTER II: SYSTEM ANALYSIS**

**System Name and Background**

The application is named “Puppy Love” as a nod to the idiom “Puppy Love” which means a romantic love felt by a young person for someone else but in the researcher’s case, they express it non-figuratively as the application works like other dating applications, but it matches users not to other people but to their potential canine partners.

Logo

Description automatically generated

**System Analysis and Tools**

**2.2.1 System Outline**

**Main Algorithm**

START

1. Check if the user is already logged in. If yes, proceed to Step 3.

Otherwise, continue to step 2.

2. The User Login/Registration Algorithm will run.

3. After Login, the user will be prompted to choose between logging in as an Adopter or a Dog Shelter.

**Logged in as an Adopter**

1. Home Page

1.1. Dog Cards proceed to Step 2.

1.2. Favorites Tab proceed to Step 3.

1.3. Settings Page proceed to Step 4.

2. Dog Cards

2.1. Swipe left or right to navigate through different dog cards.

2.2. Tap the card to reveal more information about the dog.

2.3. Click the heart button on the bottom middle of the card to add that dog to your favorite tab.

3. Favorite Tab

3.1. Search bar

3.2. Scroll through your chosen favorites and click on the dog of your choice.

3.3. If you click on the adopt button, you will be able to communicate with the Dog Shelter that put the dog of your choice up for adoption.

3.4. Remove from Favorite.

4. Settings Tab for Adopter

4.1. Filter the Dogs shown based on breed, location, age, color, etc.

4.2. Change Email.

4.3. Change Password.

4.4. Log-out.

**Logged in as a Dog Shelter**

1. Home Page

1.1. Add a Dog Card, proceed to Step 2.

1.2. Dog Cards Listed proceed to Step 3.

1.3. Settings Page proceed to Step 4.

2. Add a Dog Cards

2.1. Input information about the dog and answer various questions about it like its breed, age, etc.

2.2. Upload photos of the Dog.

2.3. Click on the add button to add the Dog to the Cards List.

3. Dog Cards Listed

3.1. Search bar

3.2. Scroll through your chosen listed dog cards and click on the dog of your choice.

3.3. You will have an option to hide the Dog from the Dog Cards list the users can see.

3.4. You can set the dog to adopted.

3.5. You can remove the dog from the list.

4. Settings Tab for a Dog Shelter.

4.1. Change Email.

4.2. Change Password.

4.3. Change Info (Location, requirements, etc.)

4.4. Log-out.

END

**User Login/Registration Algorithm**

START

1. If the user is already registered, proceed to step 4. Otherwise, continue to step 2.

2. User Registration

2.1. Full Name/ Email/ Password.

3. If the Input is valid, save to Database. Otherwise, go back to step 2.1.

4. Input Username and Password.

5. Check the inputted information from the Database.

5.1. If valid, continue to step 6. Otherwise, go back to step 4.

6. Return.

END

**2.2.2 System Flowchart**

**MAIN FLOWCHART**

**Timeline

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**LOGIN FLOWCHART (Subprocess)**

**A picture containing shape

Description automatically generated**

**REGISTER FLOWCHART (Subprocess)**

**A picture containing polygon

Description automatically generated**

**HOME PAGE FLOWCHART (Subprocess)**

**A picture containing diagram

Description automatically generated**

**DOG CARDS FLOWCHART (Subprocess)**

**A picture containing shape

Description automatically generated**

**FAVORITES TAB FLOWCHART (Subprocess)**

**Diagram

Description automatically generated**

**A picture containing text, electronics

Description automatically generatedSETTINGS FLOWCHART (Subprocess)**

**2.2.3 Context Diagram**

**Graphical user interface, text, application, chat or text message

Description automatically generated**

**Diagram

Description automatically generated2.2.4 Data Flow Diagram**

**2.2.6 Data Dictionary**

**A. User’s Information**

|  |  |  |
| --- | --- | --- |
| **FIELD NAME** | **DATA TYPE** | **LENGTH** |
| Last Name | Character | 20 |
| First Name | Character | 20 |
| Middle Name | Character | 20 |
| Phone | Numeric | 11 |
| Email | Alphanumeric | 20 |
| Password | Alphanumeric | 20 |

**2.2.7 User Requirement**

1. Software and Hardware
   1. Android phone that supports Android 4.0 or above
   2. Apple iPhone that supports IOS 8.0 or above
2. Inputs
   1. User Registered Information
   2. User Activity
3. Outputs
   1. Dog Cards from Dog Database
   2. Application Process

**Concept of the Study**

**Input Process Output**

**Knowledge Requirements**

* Android development
* Database Management

**Software Requirements**

* Java programming
* Apache Netbeans
* Android application development
* MySQL database
* Adobe XD

**Hardware Requirements**

* Smartphone
* Internet connection / Mobile data

**PuppyLove: A**

**Foster Dog**

**Showcase Database**

**Desi**

* Android development
* iOS Development
* Database Management

**Development**

* Coding the systems functions
* Coding the GUI
* Creating a database to store information
* Finding a cloud storage for uploads

**Deployment**

* Implementation

Evaluation

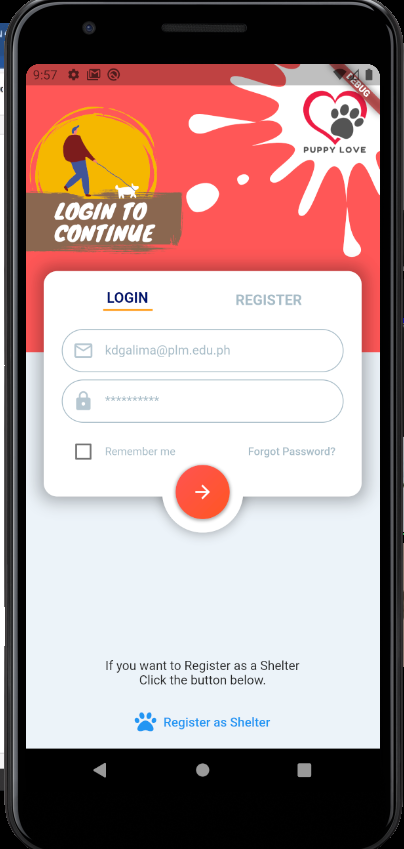
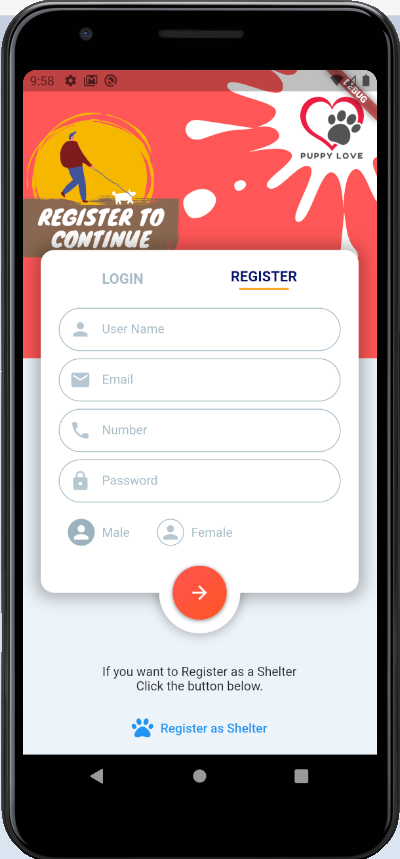
**CHAPTER III: GENERAL DESIGN**

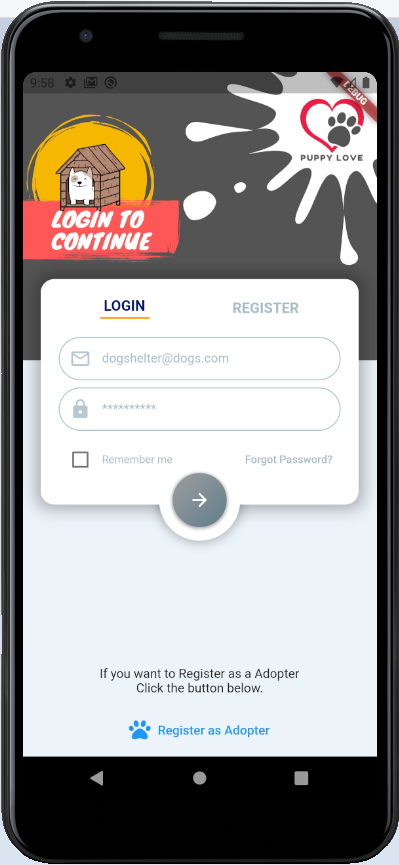
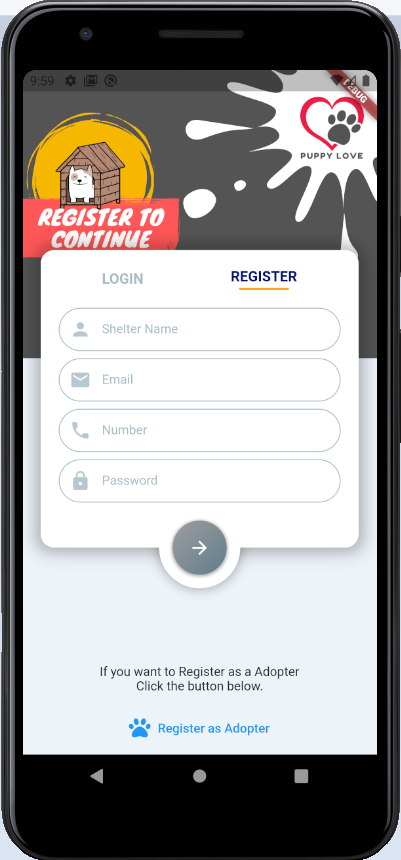
**A picture containing graphical user interface

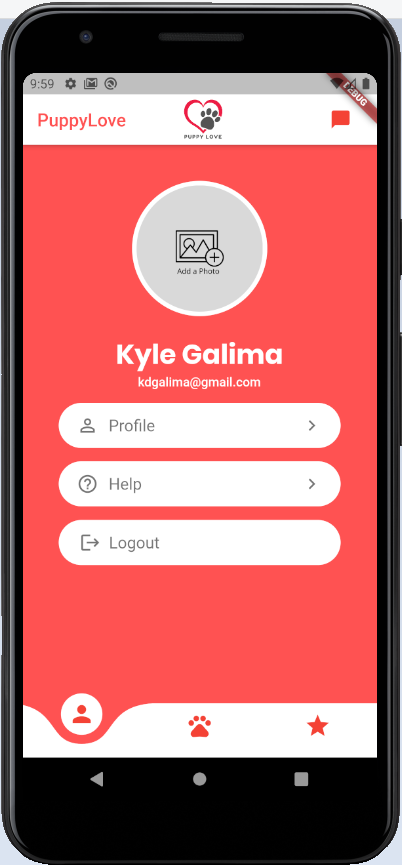
Description automatically generatedNetwork Layout**

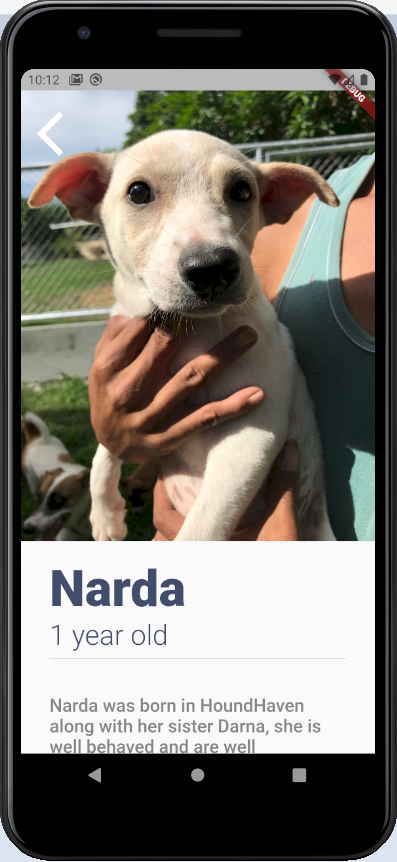
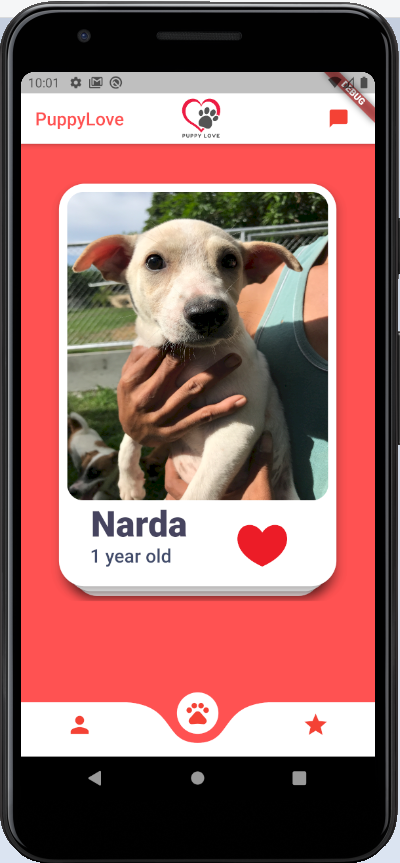
The image above shows the layout of the foster dog showcase database. The application is on mobile and the data will be on our database, it will be implemented on a server and the authentications will be on firebase. The router in the middle serves as the bridge between the user and the server to connect to the internet.

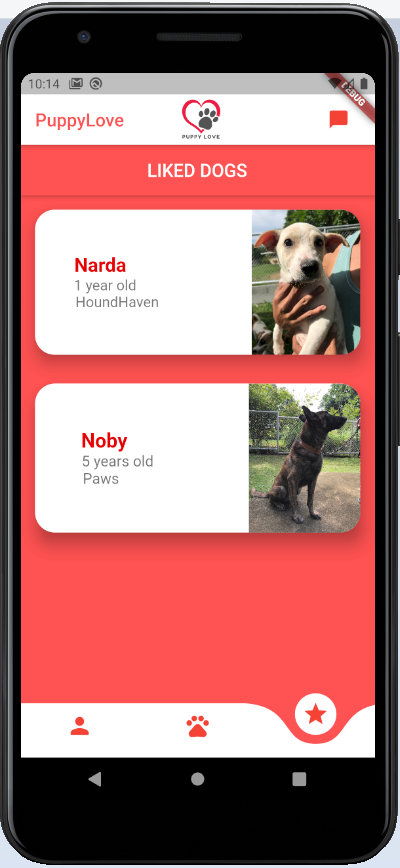
**Graphical User Interface**

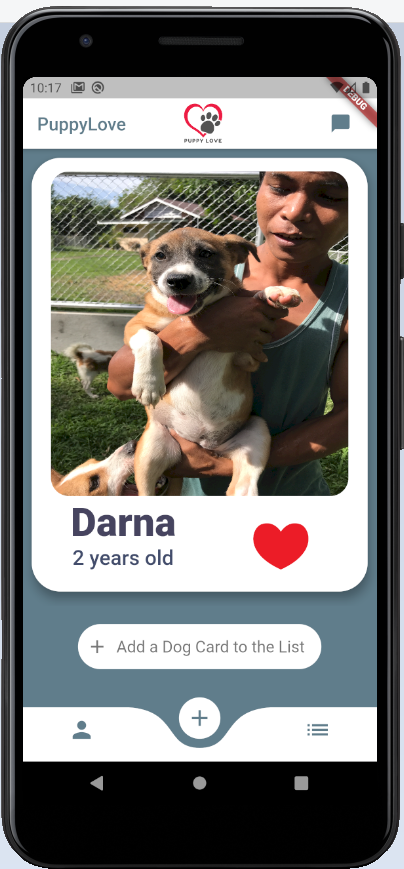
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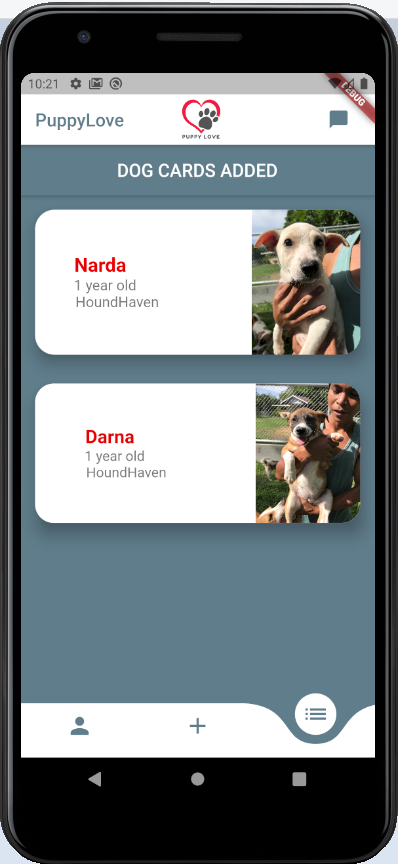
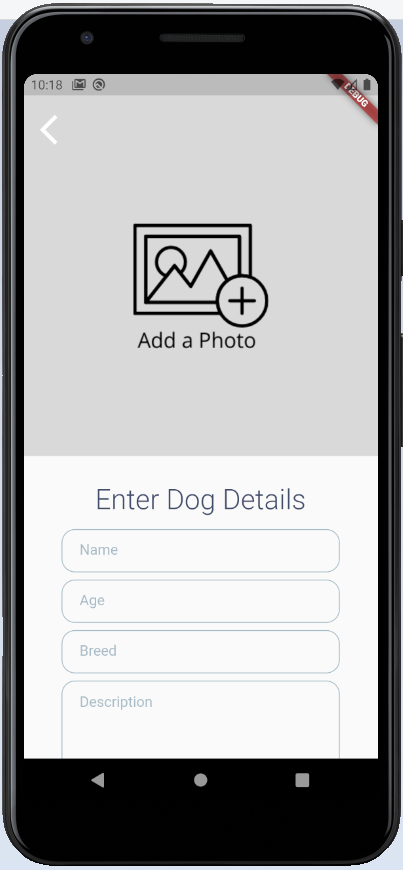
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