

# **PetPal: Connect with Pet Lovers and Save Stray Animals**

An Android Mobile Application Project presented to the  
**Faculty of Information Technology**  
School of Arts, Science, and Technology  
The National Teachers College  
629 J. Nepomuceno St., Quiapo Manila

By

Alcantara, John Benedict  
Dela Cruz, Dex Zyrius  
Eugenio, Viel  
Gonzales, Edrik  
Lusaya, Maria Carmela  
Magbalana, Jake Denfer  
Olivar, Ulysses  
Pangilinan, Dexter Ivan

In Partial Fulfillment of the  
Requirements for the subject  
Mobile Development focusing on Android Development

**2024**

## **APPROVAL SHEET**

This Android mobile application entitled “PetPal: Connect with Pet Lovers and Save Stray Animal” *were* prepared and submitted by:

Alcantara, John Benedict  
Dela Cruz, Dex Zyrius  
Eugenio, Viel  
Gonzales, Edrik  
Lusaya, Maria Carmela  
Magbalana, Jake Denfer  
Olivar, Ulysses  
Pangilinan, Dexter Ivan

has been approved by the subject adviser as partial fulfillment of the requirements for the subject **MOBILE DEVELOPMENT FOCUSING ON ANDROID DEVELOPMENT**.

**PROF. JOHN PAULO I. PERMINOLA**

Subject Adviser

## TABLE OF CONTENTS

### Chapter I. PLANNING STAGE

1.0 Introduction.....	
1.1 Objective of the Study.....	
1.2 Scope and Limitation of the Study.....	
1.3 Significance of the Study.....	
1.4 Requirements Gathering.....	
1.5 Visual Table of Contents Diagram.....	
1.6 Definition of Terms.....	

### Chapter II. UI / UX DESIGN

2.0 Information Architecture.....	
2.1 Wireframes.....	
2.2 Prototyping.....	
2.3 Mockups.....	

### Chapter III. DEVELOPMENT

3.1 Mobile Architecture.....	
3.2 Project Development.....	
3.3 Project Builds.....	
3.4 Pre-Testing process.....	

### Appendices

Appendix A: References.....	
Appendix B: User Testing Survey Form.....	
Appendix C: Accomplished Survey Forms .....	
Appendix D: Recommendations.....	



# **CHAPTER I**

## **THE PROBLEM AND ITS BACKGROUND**

### **1.0 Introduction**

- Stray animals have no one to care for them. They're wandering around the streets, and scavenging for food and shelter. There are around 12 million stray cats and dogs in the Philippines as of 2019, according to the Philippine Animal Welfare Society (PAWS). The overpopulation of stray dogs and cats has caused problems on the street, including overcrowded dog/cat pound facilities, animal cruelty, bites/rabies incidents and some vehicular accidents.
- On this proposed app, the goal is to lessen the stray animals, through an accessible app for animal sheltering. This is specially for the aspiring fur parents that would want to adopt and save stray pets. Provide basic needs and offer them a new home.

### **1.1 Objective of the Mobile Application**

- We designed the PetPal app so that the fur parents may have an easy way to find stray pets that they care for. Furthermore, to save stray animals, assist animals in need of a shelter, and communicate with other fur parents.

### **1.2 Scope and Limitation of the Mobile Application**

- Our app is intended for stray cats and dogs in Sampaloc, Manila. You'd think the app would limit the number of posts since there aren't any other categories that don't include wild pets. We'll use Android Studio to test the app on Android 9.0. This application is for pet owners who want to limit the number of stray animals in the environment.

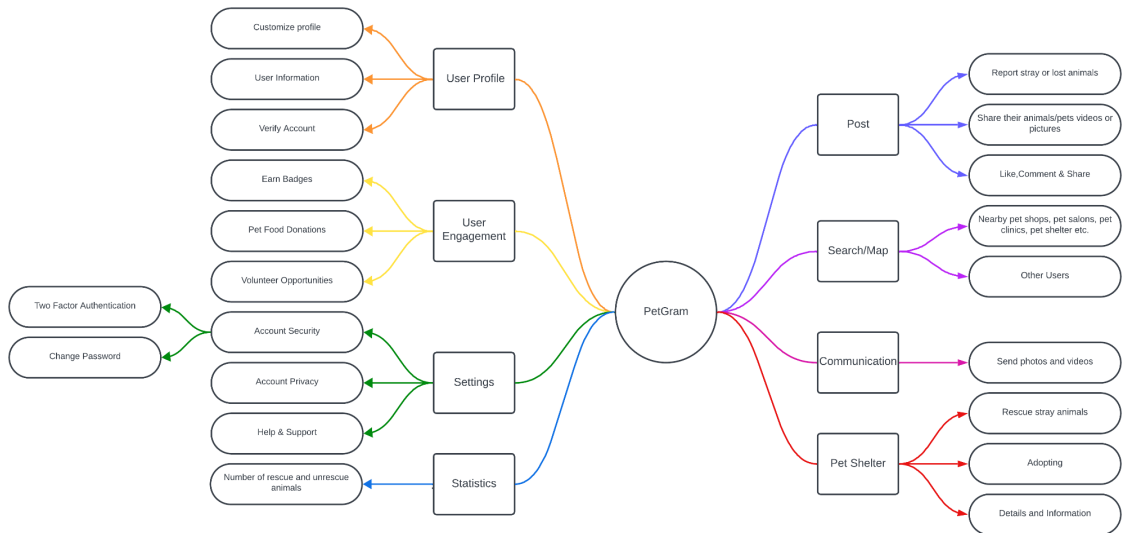
### **1.3 Significance of the Study**

- The advantage of this application is that it can protect stray animals from damage in several ways, including from individuals who detest animals. By sharing images of stray animals on our app, we can assist current and prospective pet owners in meeting their needs in approachable ways. As long as they can adopt and select a pet—especially for those without the financial means to own a dog or cat.

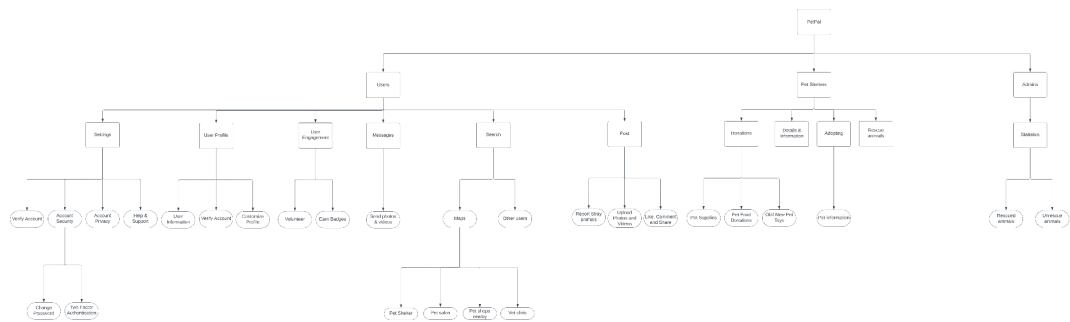
### **1.4 Requirements Gathering**

- **Android Studio for IDE:**
  - o Should be latest version of Android Studio.
  - o Learn Android studio debugging tools you will use in builds and troubleshooting the app.
- **Figma or other software for UI/UX Design Tool:**
  - o Create your wireframe, prototype, and mockup in Figma for better visualization and step by step manual of your application.
  - o The design should be responsive and compatible with various screen sizes so learn how to create a responsive application.
- **Programming Languages:**
  - o **Java** – main programming language that will use for this mobile application.
  - o **JavaScript** – for interactive and responsive purposes since the mobile application will interact with the users.
  - o **Firebase**- for storing information of users, customizing profile, retrieving information for rescued animals, uploading photos or videos, messages, earn badges, donations and volunteer opportunities.
- **JSON** for data exchange between the mobile app and server
- **Build System – Gradle:**
  - o Configure Gradle managing the dependencies and build the Android application.
  - o Make sure proper version control and dependency management.
- **Software Development Kit – JDK**
  - o Make sure the Java Development Kit (JDK) was installed and configured properly for Android development.
- **Android Mobile Phone for Testing:**
  - o Test the application on an Android mobile phone with the specified Android version (e.g., Android 10).
  - o Make sure it was compatible and responsive with various screen sizes and resolutions for android phones.

## 1.5 Visual Table of Contents Diagram



## Mind Mapping 1.0



## VTOC 1.0

## 1.6 Definition of terms

- **Android** - Android facilitates several forms of connectivity, such as GSM, CDMA, Wi-Fi, Bluetooth, and others, for data transmission or phone conversations.
- **Figma** - Figma is an online application for user interface design and graphics editing. It can be used for a wide range of graphic design tasks, such as creating social media posts, building mobile app interfaces, wireframing websites, and prototyping ideas.
- **Firebase** - Google Firebase is a tool that allows developers to effortlessly build, administer, and grow their projects.
- **Framework** - A framework is a specific set of rules, concepts, or beliefs that you use to solve problems or decide what to do.
- **Fur Parents** - caring for their pet dog or cat like they would a human child.
- **JSON** - JSON (JavaScript Object Notation) is a common format used to express structured data. Despite having originated with the JavaScript programming language, JSON is today a widely used format for exchanging data between systems.
- **Java** - Java is a popular object-oriented programming language and software platform that powers billions of devices such as notebook computers, mobile devices, gaming consoles, medical equipment, and many more.
- **Stray pets**- Domestic animals that walk the streets freely and fend for themselves without human assistance are referred to as stray animals.



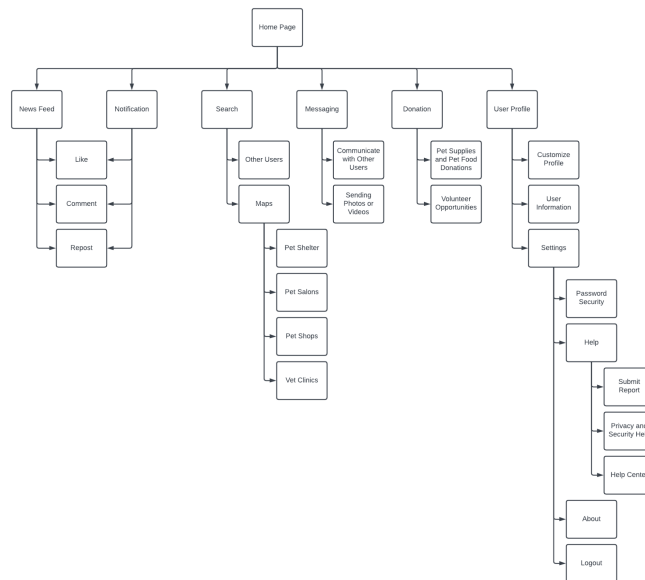
## CHAPTER II

### UI/ UX DESIGN

This chapter indicates the interaction between users and digital products that focuses on the overall experience, usability, and accessibility of a user interface. To ensure that users can easily access and accomplish their goals by navigating and interacting with the user interface.

#### 2.0 Information Architecture

- Diagram on how the information is processed from the database to the application and vice versa.



Tab

## 2.1 Wireframes

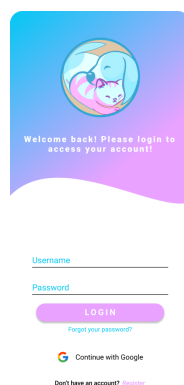
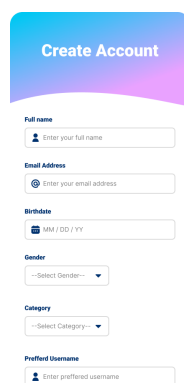


Figure 1: Login



A "Create Account" screen wireframe with a blue-to-purple gradient background. The title "Create Account" is at the top. The form includes the following fields: "Full name" with a person icon and placeholder "Enter your full name"; "Email Address" with an email icon and placeholder "Enter your email address"; "Birthdate" with a calendar icon and placeholder "MM / DD / YY"; "Gender" with a dropdown menu labeled "--Select Gender--"; "Category" with a dropdown menu labeled "--Select Category--"; and "Preferred Username" with a person icon and placeholder "Enter preferred username".

Figure 2: Create Account

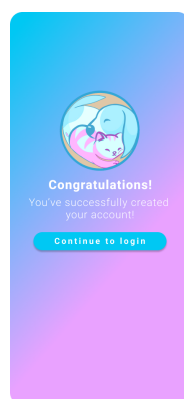


Figure 2.1: Account Successfully Created



Figure 3: Newsfeed

284 371 128

Figure 3.1: Like, Comment, and Repost.

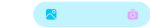


Figure 4: Post



Figure 5: Donation

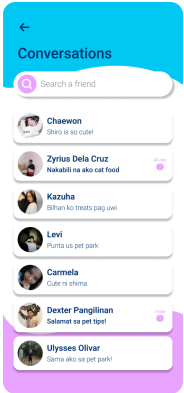


figure 6: Messages

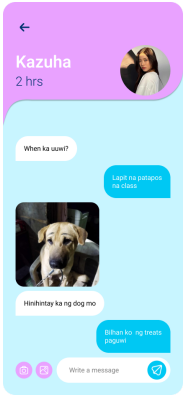


Figure 6.1: Conversations

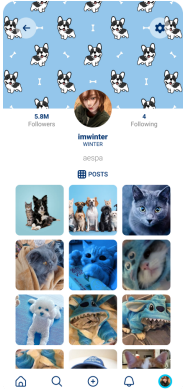


Figure 7: View Profile

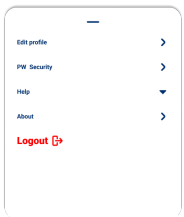
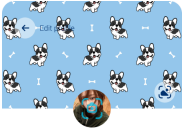


Figure 8: Settings



General Details

Username

investor1

PeiPal Handle

WINTER

Bio

enipa

Number

0123456789


Email Address

0123456789

Birthday

01/01/01

Figure 8.1: Edit Profile



Password and Security

Current Password

\*\*\*\*\*

Confirm Password

\*\*\*\*\*

New Password

\*\*\*\*\*

Update Password

Two-factor authentication

Wait ask for a verification code via your security method if you select a login from an unrecognized device or browser

SMS authentication

We will send the login codes to the number you set up here.





Figure 8.2: Update Password



Report a bug

Select option

Title

Enter title

Title

Enter a description

Submit

Figure 8.3: Help

## **2.3 Prototyping**

## **2.4 Mockup**