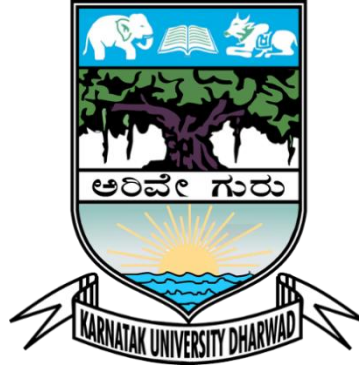


Annexure I

# **KARNATAK UNIVERSITY, DHARWAD**

Pavate Nagar, Dharwad – 580003



## **Department of Computer Science**

Submitted in partial fulfillment of the requirement for the award  
of the Degree of

**MCA (Master of Computer Application)**

**2021-22**

## **PETS CORNER APP USING ANDROID**

**A Project Report**

**Guided By**

**MR. VIJAYKUMAR G**

Submitted by

**POOJA PATTAR**

*Exam Seat No*

**20S11028**



# KARNATAK UNIVERSITY, DHARWAD

Pavate nagar, Dharwad-580003

E-mail: [csdeptkud@gmail.com](mailto:csdeptkud@gmail.com) Website : [www.kud.ac.in](http://www.kud.ac.in)

## Department of Computer Science

### CERTIFICATE

Certified that the project work entitled “**Pets Corner app using android**” carried out by **Pooja Pattar**, Reg No: **20S11028** a bonafide student of Department of Computer Science, **Karnatak University, Dharwad** in partial fulfillment for the award of degree in MCA. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Name & Signature of the Guide

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Name & Signature of the HOD

---

### External Viva

Name of the Examiners

Signature with date

1. \_\_\_\_\_

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2. \_\_\_\_\_

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# KARNATAK UNIVERSITY, DHARWAD

Pavate nagar,Dharwad-580003

E-mail: [csdeptkud@gmail.com](mailto:csdeptkud@gmail.com) Website : [www.kud.ac.in](http://www.kud.ac.in)

## Department of Computer Science

### DECLARATION

I hereby declare that the project entitled “**Pets Corner app using android**” submitted for the MCA-IV Semester Project is my original work and the project has not formed the basis for the award of any degree, associate ship, fellowship or any other similar titles.

Signature of the student

Place:

Date:

## ABSTRACT

This “PETS CORNER APP USING ANDROID” application was designed to manage the pet information such to produce the pet breed, age, location, vaccination details and few other descriptions. It is also performed in systematic through its function requirement. The pet must be registered before having any services. Any piece of information about the pets must be correct and organized to avoid any problem to be in countered like the bad feedback from the customer. The purpose of this system is to transact and deals with a nice and easier way by simply gathering information from the customer. It also helps to every individual by searching for the information needed.

We are now living in the computer age. Now the computer is controlling all the important tasks in our routine life. Android devices are also versatile because they are indispensable in the present day. To do some specific tasks, Android needs applications. Thus, to create an Android application, I took up a project named "Pets Corner app using android."

To use this application, all of its users will have a valid user id and password associated with it. A user will be able to enter the pet's details, including its price, breed, age, location, vaccination details, and a few other descriptions, and upload it. Thus, by uploading, other users find it easy to search for pets, and if interested, they can contact that person and proceed further. Thus, it creates a user-friendly application for pet lovers. The additional benefit that users can take advantage of is that they can get information about events or competitions conducted for pets and can take part in them. This would help pet lovers purchase or sell their pets in a more interactive way. Our application " Pets Corner app using android " is a platform for buying and selling different categories of pets. Our project also allows users to purchase street dogs uploaded by various non-governmental organizations. Through our project, users can directly contact the buyer or seller so that they can benefit by removing the commission fee paid to agents while buying their favoured pets. Our project also promotes a mission to reduce the number of street dogs in public places as users have an option to buy them through non-government organizations.

## ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be in complete without mention of the people who made it possible and whose constant guidance and encouragement crown all the efforts with success.

Firstly, would like to thank **KARNATAK UNIVERSITY, DHARWAD** for providing an opportunity to do project work in academics.

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# **CHAPTER-1**

## **INTRODUCTION**

### **1.1 SYNOPSIS**

We are now living the computer age. Now the computer is controlling all the important tasks in our routine life. Android devices are also versatile because they are indispensable in the present day. To do some specific tasks, Android needs applications. Thus, to create an Android application, I took up a project named “Pets Corner”. To use this applications, all of its users will have a valid user id and password associated with it.

A user will be able to enter the pet’s details, including its price, breed, age, location, vaccination details, and a few other descriptions, and upload it. Thus, by uploading, other users find it easy to search for pets, and if interested, they can contact that person and proceed further. Thus, it creates a user-friendly application for pet lovers. The additional benefit that users can take advantages of is that they can get information about events or competitions conducted for pets and can take part in them. This would help pet lovers purchase or sell their pets in a more interactive way.

Our application “pets corner” is a platform for buying and selling different categories of pets. Our project also enables the user for buying street dogs which are uploaded by various Non-government organisation. Through our project, users can directly contact the buyer/seller so that they are benefitted by removing the commission fee paid to agents while buying their favoured pets. Our project also promotes a mission to reduce the count of street dogs in public places as users have an option to buy them through Non-Government organizations.

## **1.2 ABOUT ORGANIZATION**

Our organization offers two master degree course namely (M.Sc.) Master in Science (Computer Science) and Master in Computer Applications (M.C.A). The best facilities are provided by the Department for the education of the students. Highly talented faculties are available for the quality education and a very friendly environment is created. Department is very well-equipped with laboratory, class rooms, library. Also, department library is equipped with 2000 volumes, 72 e-journals are accessible through UGC-INFLIBNET, 4 popular journals related to Information Technology, Three Computer laboratories are setup for the good education for students. Backups are maintained well even though there are 90 computers in the department. Students are provided with the facility of Wi-Fi so as to get connected to the internet. Our organization is one of the best organizations in quality education.

# **CHAPTER-2**

# **SYSTEM STUDY**

## **2.1 EXISTING SYSTEM**

In the existing system, User or buyer wants to buy any pet so that they will go out & search for all pet shops. which takes more time to bring pet to home. Hence it is a time consuming process.

## **2.2 PROPOSED SYSTEM**

In the proposed system

1. In this android application, where people who are going to search their pets can contact owner and they can upload their pet images and details and also contact details of respective owner.
2. Customer can look into those images and interested people can buy those pets by contacting the respective owner.
3. If the customer are new to this application , they can register through their email id.
4. Users can take advantage that they can get the information about events or competitions which are conducted for pets and can take part in them.
5. Thus, it creates user friendly for pet lovers.

## **2.3 FEASIBILITY STUDY**

Feasibility study is the measure of how beneficial or practical the development of an information system will be to an organization. The Feasibility analysis is a cross life cycle activity and should be continuously performed throughout the system life cycle. Feasibility study is carried out to select the best system that meets the performance requirements. Feasibility tests are as follows:

1. Economical Feasibility
2. Technical Feasibility
3. Duration

### **2.3.1 ECONOMIC FEASIBILITY**

The proposed system will save lots of paper work and facilitate electronic record keeping thereby reducing the costs incurred an above heads. Economic feasibility is often known as the cost benefit analysis. To carry out an economic feasibility study it is necessary to estimate actual money value against activities needed for implementing the system.

### **2.3.2 TECHNICAL FEASIBILITY**

1. For the design and development of the system, the several software products have been accumulated.
2. Database design-DBMS
3. Interface design-Android XML
4. Coding Language-Java
5. This software's have the enough efficiency in produing the system. Therefore the project is technically feasible.

### **2.3.3 DURATION**

Table 2.3.3.1 Duration

FROM	TO	DESCRIPTION
April 3 <sup>rd</sup> week	April 4 <sup>th</sup> week	Gather information about the work flow of the system.
May 1 <sup>st</sup> week	May 3 <sup>rd</sup> week	According to the workflow of the system, design the appropriate user interface.
May 4 <sup>th</sup> week	June 4 <sup>th</sup> week	Coding of the project and testing.
July 1 <sup>st</sup> week	July 3 <sup>rd</sup> week	Identifying and correcting any errors that may occur.
July 4 <sup>th</sup> week	August 1 <sup>st</sup> week	Submission of the final report.

# **CHAPTER 3**

## **SYSTEM ANALYSIS**



### 3.1 SYSTEM FLOWCHART

A flowchart is a diagram that depicts a process, system or computer algorithm. They are widely used in multiple fields to document, study, plan, improve and communicate often complex processes in clear, easy-to-understand diagrams. Flowcharts, sometimes spelled as flow charts, use rectangles, ovals, diamonds and potentially numerous other shapes to define the type of step, along with connecting arrows to define flow and sequence. They can range from simple, hand-drawn charts to comprehensive computer-drawn diagrams depicting multiple steps and routes. If we consider all the various forms of flowcharts, they are one of the most common diagrams on the planet, used by both technical and non-technical people in numerous fields.

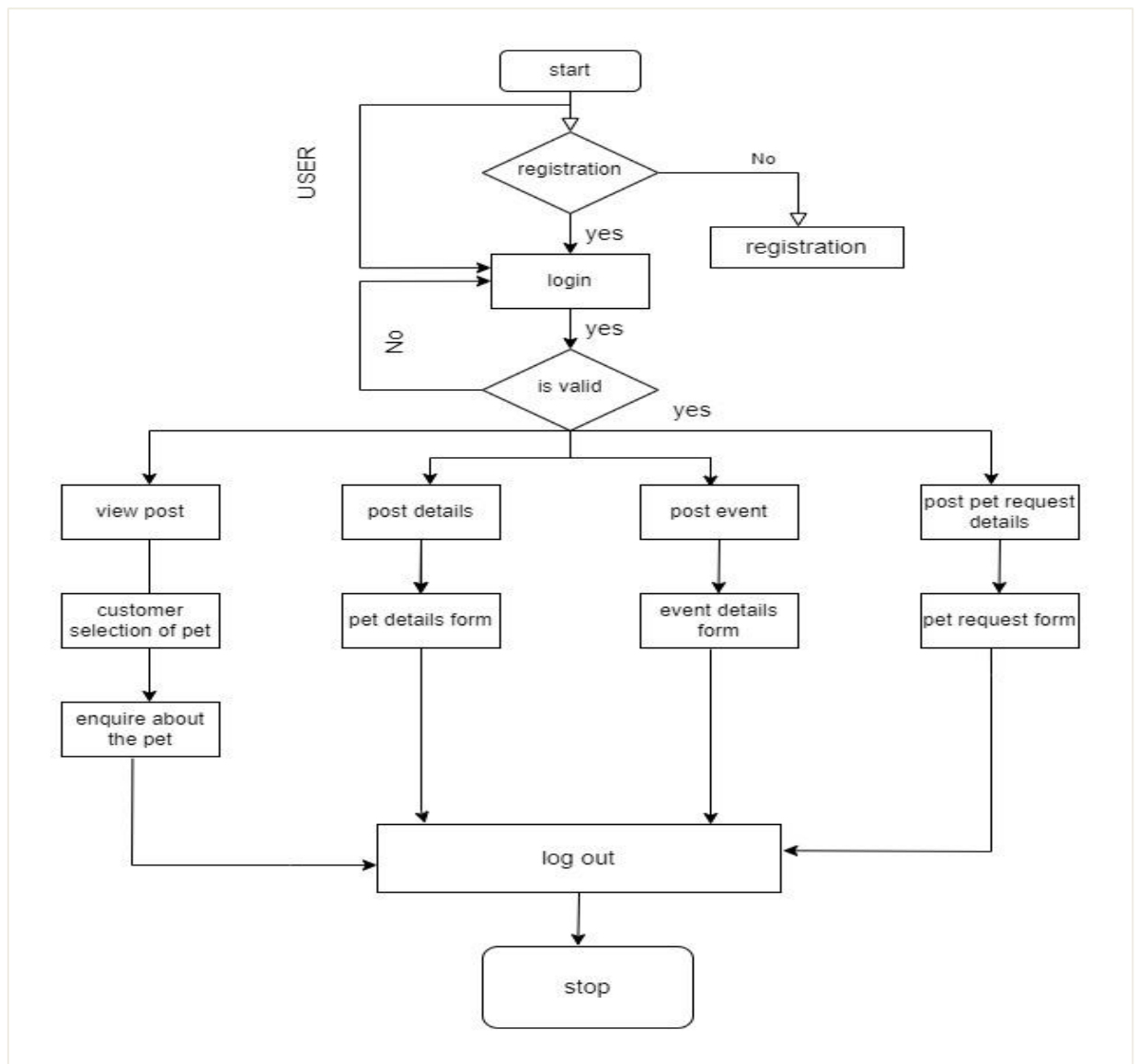


Fig 3.1.1 System flowchart

### 3.2 E-R DIAGRAMS

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.

ER diagrams are related to data structure diagrams (DSDs), which focus on the relationships of elements within entities instead of relationships between entities themselves. ER diagrams also are often used in conjunction with data flow diagrams (DFDs), which map out the flow of information for processes or systems.

#### ELEMENTS OF ER-DIAGRAMS

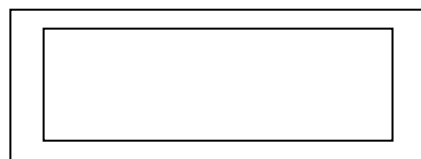
##### ENTITY

An entity be a people, place, event or object that is relevant to given system for example, a school system any include student, teacher, major courses, subjects, fees and other items. Entities are represented in ER diagrams by a rectangle and named using singular nouns.



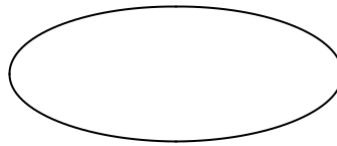
##### WEAK ENTITY

A weak entity is an entity that depends on the existence of another entity. In more technical term it can defined as an entity that cannot be identified by its own attributes. It uses a foreign key combined with its attributed to form the primary key. An entity like order items is a good example for this. The order item will be meaningless without an order so it depends on the existence of order.



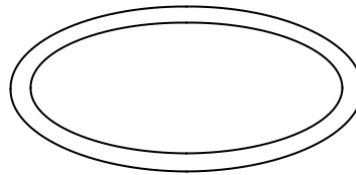
## ATTRIBUTES

An attribute is a property, trait or characteristics of an entity, relationship or another attribute. For example, the attribute inventory Item Name is an attribute of the entity Inventory Item. An entity can have as many attributes as necessary. Meanwhile, attributes can also have their own specific attributes. For example, the attribute “Farmer details” can have the attribute number, name, and city. These are called composite attributes. Note that some top-level ER diagram do not show attributes for the sake of simplicity. In those that do, however, attribute is represented by oval shapes.



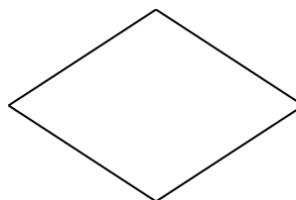
## MULTI VALUES ATTRIBUTE

If an attribute can have more than one value it is called an multivalued attributes. It is important to note that this is different to an attribute having its own attribute. For example, a teacher entity can have multiple subject values.



## RELATIONSHIP

A relationship describes how entities interact. For example, the entity” carpenter” may be related to the entity” table” by the relationship “builds” or “makes”. Relationship are represented by diamond shapes and are labelled using verbs.



## ER-DIAGRAM

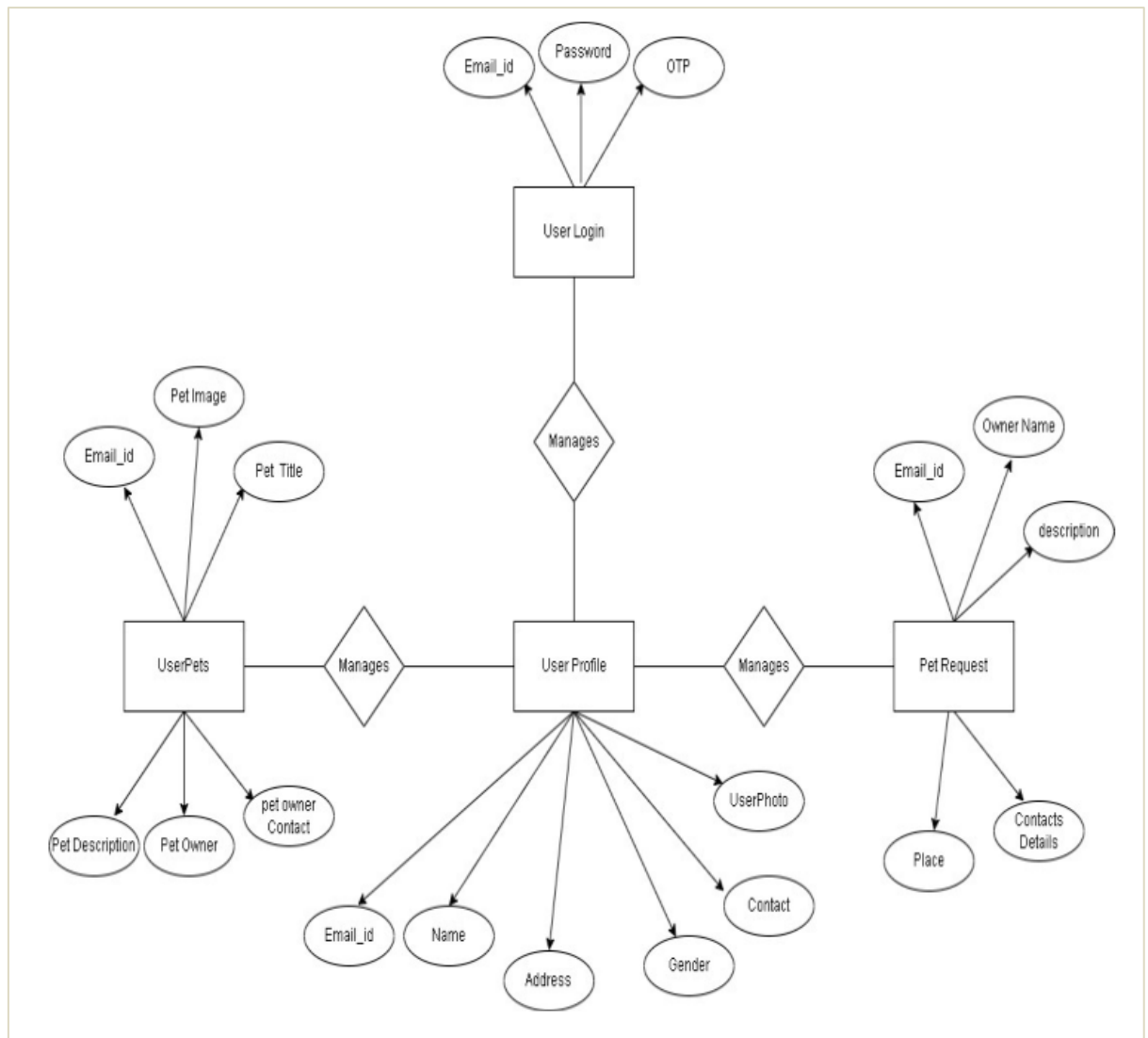


Fig 3.2.1 E-R Diagrams

## 3.3 SYSTEM ARCHITECTURE

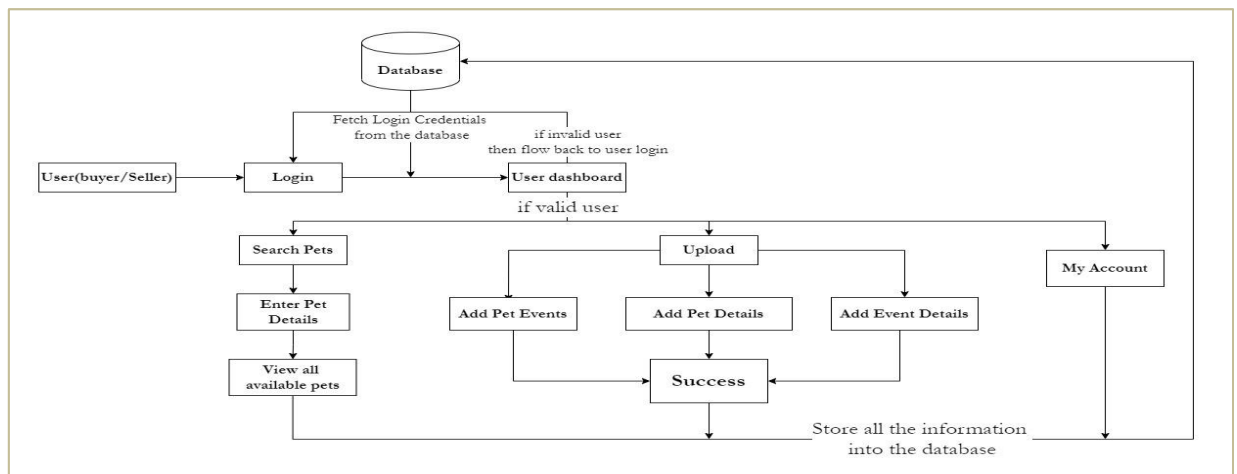


Fig 3.2.2 System Architecture

In this android application, where people who are going to search their pets can contact owner and they can upload their pet images and details and also contact details of respective owner. Customer can look into those images and interested people can buy those pets by contacting the respective owner. If the customer are new to this application , they can register through their email id. Users can take advantage that they can get the information about events or competitions which are conducted for pets and can take part in them. Thus, it creates user friendly for pet lovers

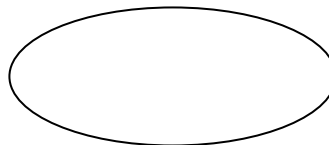
### **3.4 DATA FLOW DIAGRAM (DFDS)**

Data flow diagrams are a graphical tool used to describe and analyses the movement of data through a system. DFD's are used to capture the essential feature of both existing real system and future physical implementation of the system.

The DFD is a technique that depicts the information flow and the transforms that are applied as data move from input to output. The DFD is known as Bubble Chart or Data Flow Graphs or Context diagram. The data flow diagram may be used to present a system or software at any level of abstraction. A functional system model or a context model represents the entire software elements as a single bubble with input and output data indicated by incoming and outgoing arrows respectively. Different notations used in DFD are:

#### **1. FUNCTIONAL PROCESSING**

It is represented by an oval. The processing or main transactions are specified by this notation.



#### **2. DATA FLOW**

It is represented by an arrow line and name of the data is specified by the side of the line as label. This is used for data movement.



#### **3. DATA STORE**

It is represented by one open-end rectangle. The databases used in the system are specified by this notation.



#### 4. SOURCE OR SINK

It is represented by one open-end rectangle. It is used for specifying from where data comes and where it reaches.



#### PETS CORNER/STORE SYSTEM DFD

The **Pets corner System DFD** is a diagram used to show the overall data management of the project. It has 3 main levels that shows the Pets store System data handling which is the DFD Level 0, 1, and transition diagram. These DFD levels illustrates the Pet store data management concept from the basics up to specific details.

The DFD Level 0, 1 and transition diagram has their part in explaining the data handling of Pets store System. The DFD Level 0 (context Diagram) shows the overall function of Pets store System in a single process. It also serves as the main basis as you make the proceeding Levels. The DFD Level 0, 1 includes the databases of the all the data that will be part of the Project's main function.

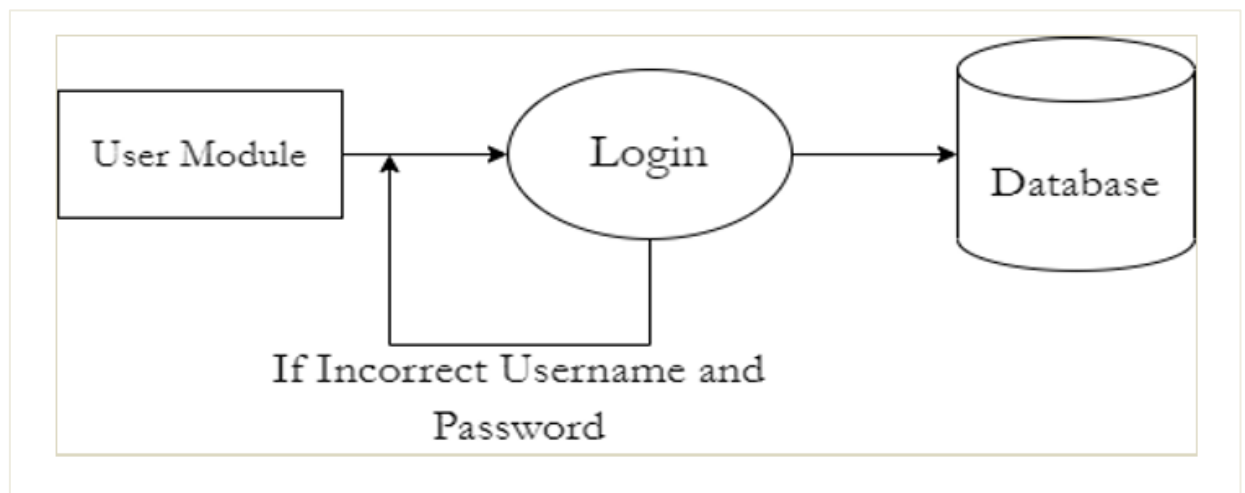


Fig 3.3.1 Context Diagram

#### DFD DIAGRAM FOR ZERO LEVEL: 0

The DFD Diagram level 0 shows the abstract view of Pets Store System and represented as a single process with external entities and main data. This level introduces the main function of Pets store System in general that is why it is called as the context diagram.

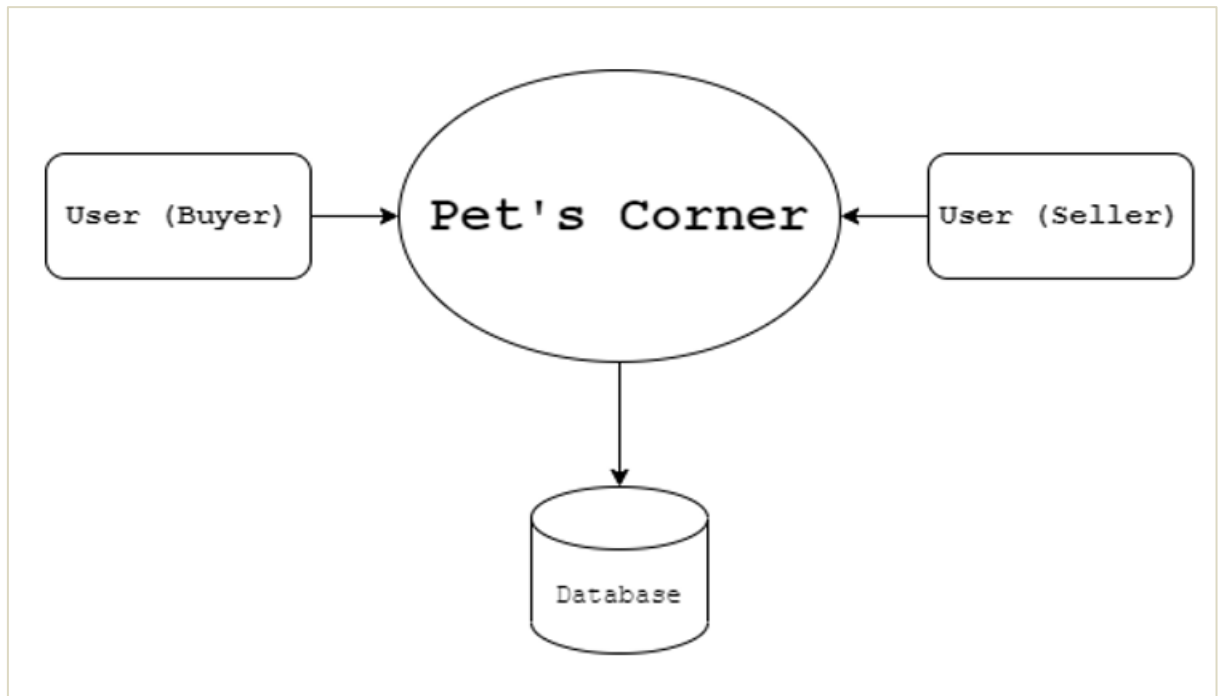


Fig 3.3.2 Pets corner/Store System DFD level 0

## DFD DIAGRAM FOR LEVEL 1

Next to the context diagram is the level 1 data flow diagram. The content of DFD level 1 is the broadened idea from the DFD level 0. It reveals further processing information as well the data and processes that completes the Pets Corner System function.

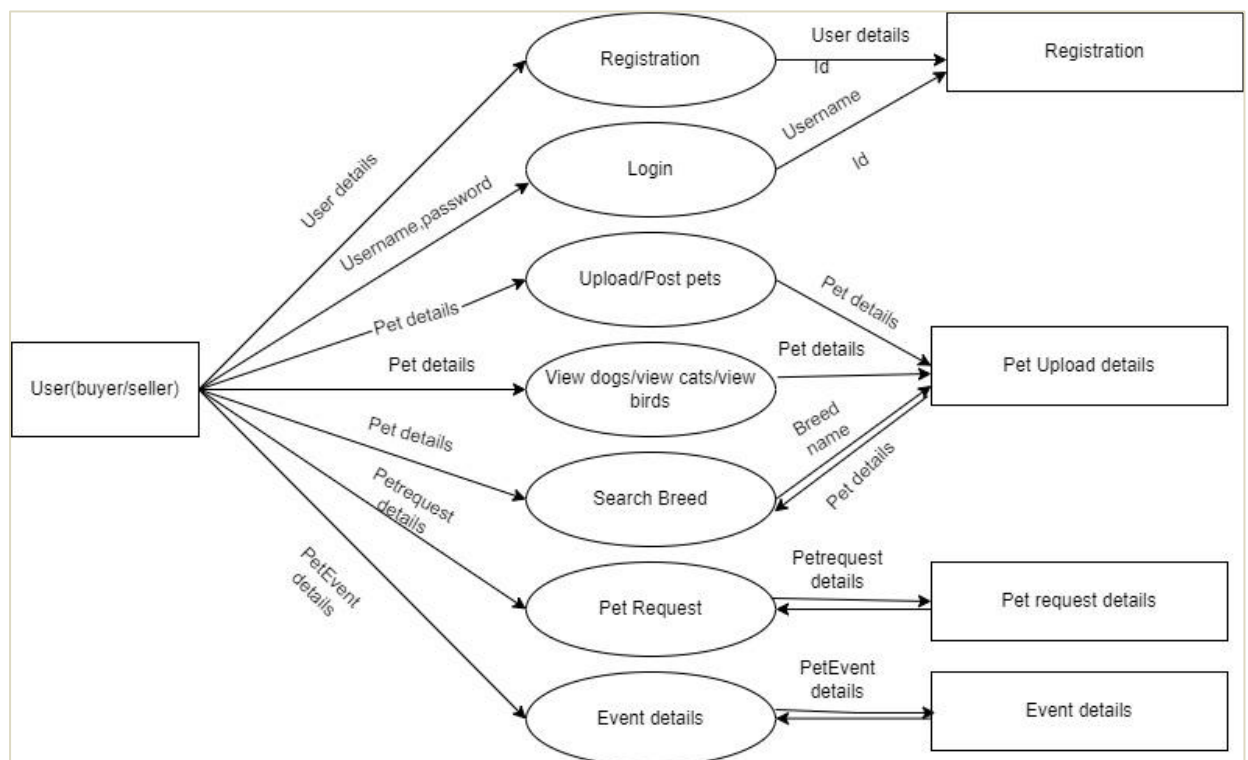


Fig 3.3.3 Pets corner system DFD level 1

## **GENERAL FLOW DIAGRAM OF THE SYSTEM**

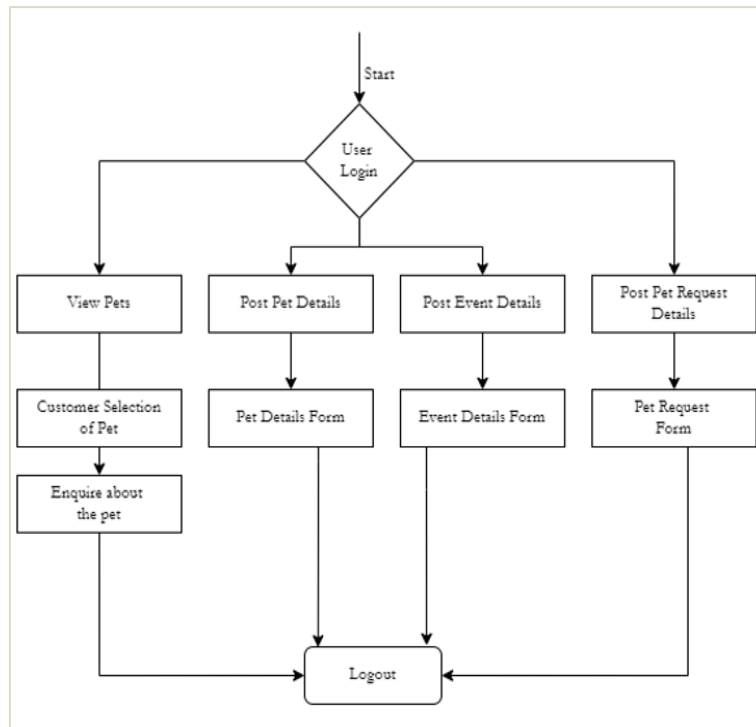


Fig 3.3.4 General flow diagram

### **3.5 REQUIREMENT SPECIFICATIONS**

A Software requirement specification (SRS) is a description of a software system to be developed. It lays out Functional and Non-Functional Requirements, and may include a set of use cases that describe user interactions that the software must provide.

The production of the requirements stage of the software development process is Software Requirements Specifications (SRS) (also called a requirements document). This report lays a foundation for software engineering activities and is constructed when entire requirements are elicited and analyzed. SRS is a formal report, which acts as a representation of software that enables the customers to review whether it (SRS) is according to their requirements. Also, it comprises user requirements for a system as well as detailed specifications of the system requirements.

The SRS is a specification for a specific software product, program, or set of applications that perform particular functions in a specific environment. It serves several goals depending on who is writing it. First, the SRS could be written by the client of a system. Second, the SRS could be written by a developer of the system. The two methods create entirely various situations and establish different purposes for the document altogether. The first case, SRS, is



used to define the needs and expectation of the users. The second case, SRS, is written for various purposes and serves as a contract document between customer and developer.

### **3.5.1 FUNCTIONAL REQUIREMENTS**

Functional Requirements: These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements. Some of the functional requirements regarding the user are as follows.

1. All users will be able to access their accounts using a valid login credentials.
2. The system will allow users to create a profile for use in the system.
3. The system will take the information given by the user and match it to potential animal matches in the system.
4. The system will display all animals in the system for a user.

### **3.5.2 NON FUNCTIONAL REQUIREMENTS**

Non-functional requirements: These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioural requirements.

Performance requirements: The response time should not vary with the increasing the size of the data storage.

Security requirements: This application should not modify any details.

Validation and verification: Checks all the fields are filled and validate.

### **3.5.3 HARDWARE REQUIREMENTS**

Table 3.5.3.1 Hardware requirement

Name of Component	Specification
Processor	Pentium core i3 and above.
RAM	4GB
Hard Disk	20GB

### **3.5.4 SOFTWARE REQUIREMENTS**

Table 3.5.4.1 Software Requirements

Name of Component	Specification
Operating System	Windows XP and above
Coding language	Java2
Database	WAMP database
Browser	Any of Mozilla, Opera, Chrome etc
Web server	WAMP Server
Software development kit	Android Studio

# **CHAPTER-4**

## **SYSTEM DESIGN**

## 4.1 FILE/DATABASE DESIGN

### 4.1.1 HIGH LEVEL DATA

#### ACCOUNT CREATION OTP TABLE :

In the database account creation otp table has 2 attributes those are email\_id, otp used in this table.

email_id	otp
----------	-----

#### CATEGORY

In the database category table has 2 attribute those category\_name category\_image used in this table.

category_name	category_image
---------------	----------------

#### USER EVENTS

In the database category table has 12 attributes those are user\_id, event\_id, user\_email\_id, event\_title, event\_date, event\_time, event\_desc, event\_location, event\_state, event\_contact, event\_link, event\_photo used in this table.

event_photo	event_id	user_email_id	event_title	event_date
-------------	----------	---------------	-------------	------------

event_time	event_desc	event_location	event_state	event_contact	event_link	event_photo
------------	------------	----------------	-------------	---------------	------------	-------------

#### USER LOGIN

In the database category table has 3 attributes those are EMAIL\_ID, PASSWORD, OTP used in this table.

email_id	password	otp
----------	----------	-----

#### USER PETS

In the database category table has 12 attributes those are user\_id, pet\_id, email\_id, petcategory, petname, petage, pgender, pbreed, pabout, pprice, ppricetype, plocation used in this table.

user_id	pet_id	email_id	petcategory	petname	petage
---------	--------	----------	-------------	---------	--------

pgender	pbreed	pabout	pprice	ppricetype	plocation
---------	--------	--------	--------	------------	-----------

**USER PET REQUEST**

In the database category table has 5 attributes those are user\_id, request\_id, email\_id, petdescription, petlocation used in this table.

user_id	request_id	email_id	petdescription	petlocation
---------	------------	----------	----------------	-------------

**USER PROFILE**

In the database category table has 8 attributes those are user\_id, email\_id, firstname, lastname, gender, contactnumber, password, profile pic used in this table.

user_id	email_id	firstname	lastname	gender	contactnumber	password	profile pic
---------	----------	-----------	----------	--------	---------------	----------	-------------

**4.1.2 LOW LEVEL DATA****1. ACCOUNT CREATION OTP**

Column name	Column type	Length	Null?	Constraints
email_id	varchar	500	NO	PK
otp	varchar	500	NO	

**2. CATEGORY**

Column name	Column type	Length	Null	Constraints
category_name	varchar	500	NO	
category_image	varchar	500	NO	

**3.USER EVENTS**

Column name	Column Type	Length	Null	Constraints
user_id	varchar	500	NO	FK
event_id	varchar	500	NO	PK
user_email_id	varchar	500	NO	
event_title	varchar	500	NO	
event_date	varchar	500	NO	

## PETS CORNER APP USING ANDROID

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event_time	varchar	500	NO	
event_desc	varchar	500	NO	
event_location	varchar	500	NO	
event_state	varchar	500	NO	
event_contact	varchar	500	NO	
event_link	varchar	500	NO	
event_photo	varchar	500	NO	

### 5.USER LOGIN

Column name	Column type	Length	Null?	Constraints
email_id	varchar	500	NO	
password	varchar	500	NO	
otp	varchar	500	NO	

### 6.UER PETS

Column name	Column type	Length	Null	Constraints
user_id	varchar	500	NO	FK
pet_id	varchar	500	NO	PK
email_id	varchar	500	NO	
petcategory	varchar	500	NO	
petname	varchar	500	NO	
petage	varchar	500	NO	
pgender	varchar	500	NO	
pbreed	varchar	500	NO	
pabout	varchar	500	NO	
pprice	varchar	500	NO	

---

## PETS CORNER APP USING ANDROID

---

ppricetype	varchar	500	NO	
plocation	varchar	500	NO	

### 7.USER PET REQUEST

Column name	Column type	Length	Null	Constraints
user_id	varchar	500	NO	FK
request_id	varchar	500	NO	PK
email_id	varchar	500	NO	
petdescription	varchar	500	NO	
petlocation	varchar	500	NO	

### 8.USER PROFILE

Column name	Column type	Length	Null	Constraints
user_id	varchar	500	NO	PK
email_id	varchar	500	NO	
firstname	varchar	500	NO	
lastname	varchar	500	NO	
gender	varchar	500	NO	
contactnumber	varchar	500	NO	
password	varchar	500	NO	
profile pic	varchar	500	NO	

## 4.2 NORMALIZATION

The normalization process takes a relational schema through a series of tests to “certify” whether it satisfies a certain normal form. The process, which proceeds in a top down fashion, by evaluating each relation against the criteria for normal forms and decomposing the relations as necessary can thus be considered as the normalization process or relational design by analysis. The normalization criteria followed in the project include the following:

1. First Normal Form (1NF)
2. Second Normal Form (2NF)
3. Third Normal Form (3NF)

### FIRST NORMAL FORM

It is defined to disallow multi-valued attributes, composite attributes and their combinations. It states that the domain of the attribute must include only atomic values and that the value of any attribute in the domain must be a single value from the domain of that attribute. Hence 1NF disallows having a set of values, a tuple of values, a combination of both as an attribute value of a single tuple. In other words, 1NF disallows

### SECOND NORMAL FORM

The test for 2NF involves testing for functional dependencies whose left-hand attributes are part of the primary-key. If the primary-key has a single attribute then the test need not be applied at all. A relational schema R is said to be in 2NF if every non-prime attribute in R is fully functionally dependent on the primary key of R.

**Remedy:** Decompose and setup a new relation for each partial key with its dependent attributes. Make sure to keep a relation with the original primary key and any attributes that are functionally dependent on it.

### THIRD NORMAL FORM

This is based on the concept of transitive dependency. A functional dependency  $X \rightarrow Y$  in a relation R is a transitive dependency if there is a set of attributes Z that is neither a candidate key nor a subset of any key of R, and both  $X \rightarrow Z$  and  $Z \rightarrow Y$  hold. In other words, a relation should not have a non-key attribute functionally determined by another non-key attribute (or by a set of non-key attributes).

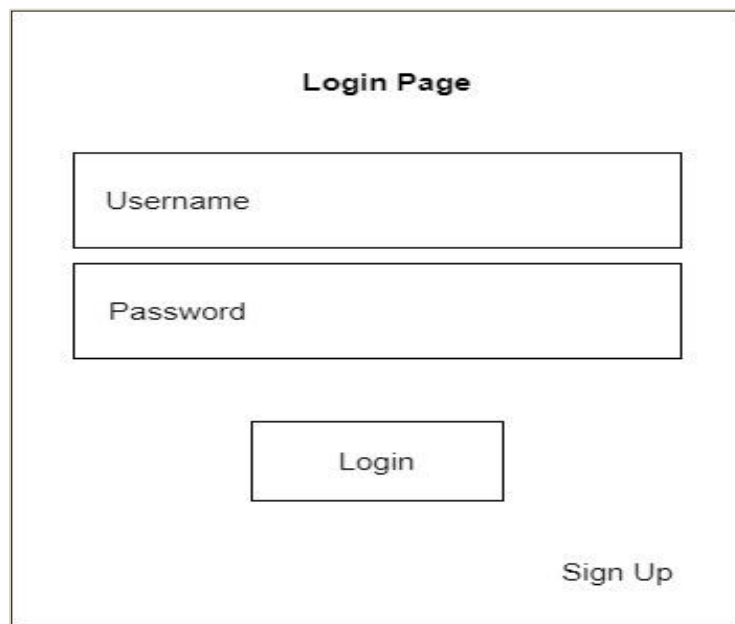
**Remedy:** Decompose and set up a relation that includes the non-key attribute(s) that functionally determine other non-key attributes.



All the relations in our project satisfy fully “functional dependency” property and hence are in the Third Normal Form.

### **4.3 INPUT/OUTPUT FORM DESIGN**

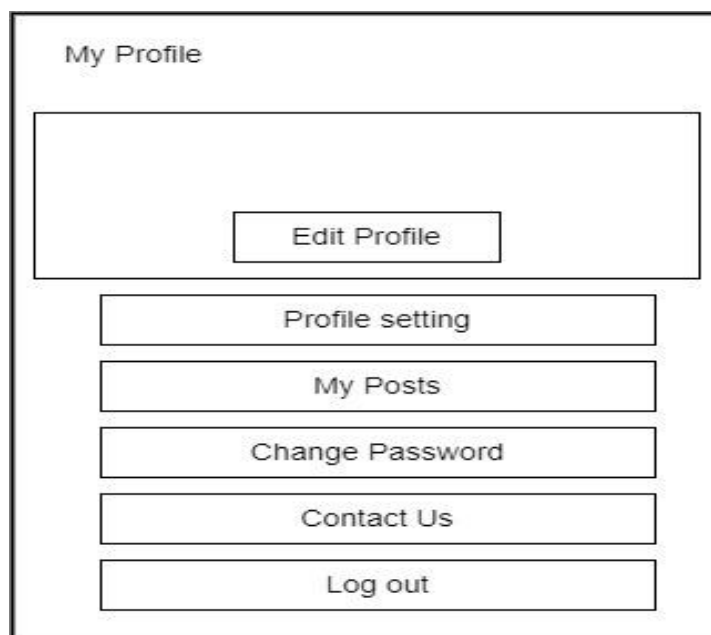
#### **LOGIN PAGE/USER LOGIN PAGE**



The diagram illustrates the User Login Page. It features a central container with a title "Login Page" at the top. Below the title are two input fields: "Username" and "Password". A "Login" button is positioned below the password field. In the bottom right corner of the container, there is a "Sign Up" link.

Fig 4.3.1 User Login Page

#### **USER PROFILE PAGE**

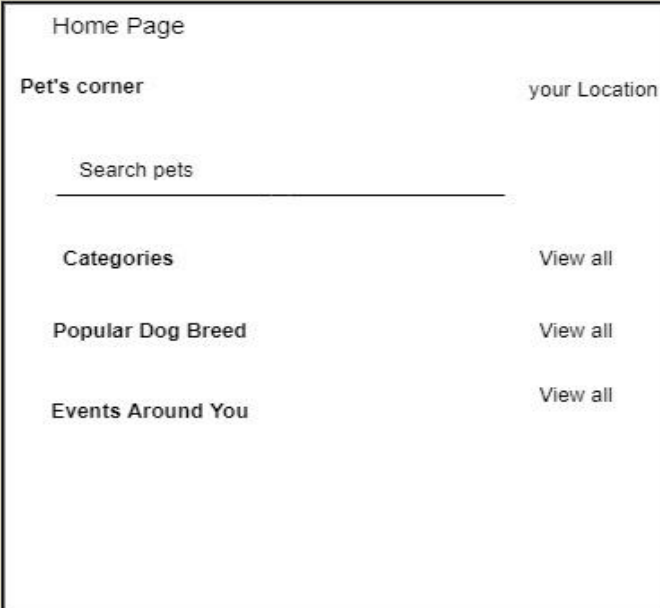


The diagram illustrates the User Profile Page. It features a container with a title "My Profile" at the top. Below the title is a large rectangular area containing an "Edit Profile" button. Below this area is a vertical stack of five buttons: "Profile setting", "My Posts", "Change Password", "Contact Us", and "Log out".

Fig 4.3.2 User profile page

## SCREEN DESIGN

### HOME PAGE



Home Page

Pet's corner your Location

Search pets

Categories View all

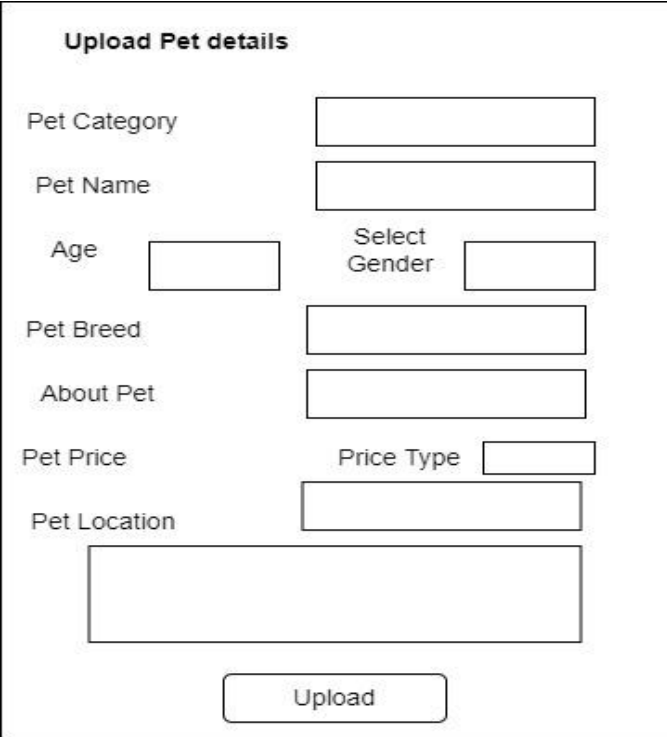
Popular Dog Breed View all

Events Around You View all

The home page layout includes a title 'Home Page' at the top. Below it, there are two main sections: 'Pet's corner' and 'your Location'. Under 'Pet's corner', there is a search bar labeled 'Search pets'. Below the search bar, there are three categories: 'Categories', 'Popular Dog Breed', and 'Events Around You'. Each category has a 'View all' link next to it.

Fig 4.3.3 User home page

### UPLOAD PET DETAILS



Upload Pet details

Pet Category

Pet Name

Age  Select Gender

Pet Breed

About Pet

Pet Price Price Type

Pet Location

Upload

The upload pet details page has a title 'Upload Pet details'. It contains several input fields for pet information: 'Pet Category', 'Pet Name', 'Age', 'Select Gender', 'Pet Breed', 'About Pet', 'Pet Price', 'Price Type', and 'Pet Location'. There is also a large empty text area for additional details. At the bottom, there is an 'Upload' button.

Fig 4.3.4 User upload pet details page

## PET REQUEST PAGE

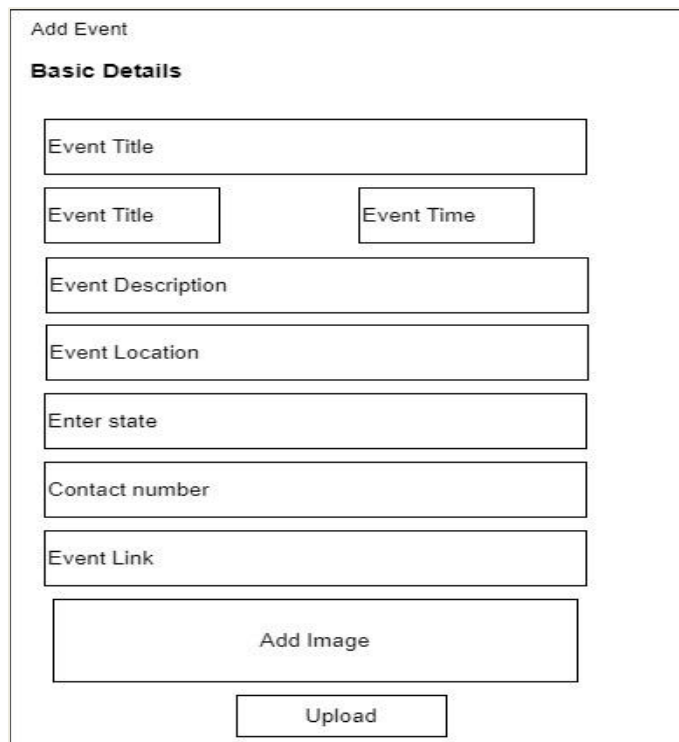


The form is titled "Pet Request" and contains the following elements:

- A header "Pet Request" in bold.
- A text input field labeled "Pet Description".
- A text input field labeled "Enter place".
- An "Upload Request" button.

Fig 4.3.5 Pet Request

## UPLOAD EVENT DETAILS



The form is titled "Add Event" and contains the following elements:

- A header "Basic Details" in bold.
- A text input field labeled "Event Title".
- Two text input fields: "Event Title" and "Event Time".
- A text input field labeled "Event Description".
- A text input field labeled "Event Location".
- A text input field labeled "Enter state".
- A text input field labeled "Contact number".
- A text input field labeled "Event Link".
- An "Add Image" button.
- An "Upload" button.

fig 4.3.6 upload event details page

## EVENT DETAILS VIEW

Events

☐ Nayana  
Dog Show provides the information at dog show event details which are going to be held in india.  

View Details

☐ Rajesh  
Dog Show provides the information at dog show event details which are going to be held in india.  

View Details

Fig 4.3.7 Event Details View Page

# **CHAPTER-5**

# **IMPLEMENTATION**

## **5.1 IMPLEMENTATION**

We have 2 types of users of the system.

1. USER (Seller):
2. USER (Buyer) :

Following functionalities can be performed by the user(seller):

1. Login
2. Can register his/her account to access the services of pets store application.
3. Upload pet details
4. Can update and view other profiles.
5. Can upload/post pets which are available for sale.
6. Can response about particular pet to other user request.

Following functionalities can be performed by the user (buyer):

1. Login
2. Can register his/her account to access the services of pets store application.
3. Can upload/post pets which are available for sale.
4. Can update and view other profiles
5. Can post request about particular book and get response from other user.

## **5.2 ALGORITHM**

User or buyer details pseudo code:

Step 1: Start

Step 2: User Login Page

Step 3: Input Email and Password

Step 4: If Valid then Step 6 otherwise Step 5

Step 5: Login Page displays error message. ie It should give appropriate error message saying “You have entered wrong Username and Password”

Step 6: Home is displayed

Step 7: Can register his/her account to access the services of pets store application.

Step 8: Can update and view other profiles

Step 9: Can upload/post pets which are available for sale

Step 10: Can also buy pet from this application

Step 11: Can response about particular pet to other user request

Step 12: can do the pet request

Step 13: Can also upload/view pet event details

Step 14: Logout

Step 15: Stop

## **USER OR SELLER DETAILS PSEUDO CODE**

Step 1: Start

Step 2: User Login Page

Step 3: Input Email and Password

Step 4: If Valid then Step 6 otherwise Step 5

Step 5: Login Page displays error message. ie It should give appropriate error message saying “You have entered wrong Username and Password”.

Step 6: Home is displayed

Step 7: Can register his/her account to access the services of pets store application

Step 8: Can update and view other profiles

Step 9: Can upload/post pets which are available for sale

Step 10: Can sell pets from this application

Step 11: Can post request about particular book and get response from other user

Step 12: Can also upload/view pet event details

Step 12: Logout; Step 13: Stop

# **CHAPTER-6**

## **SYSTEM TESTING**



## **6.1 PREPARATION OF TEST DATA & TEST**

### **WHITE BOX TESTING**

1. Check whether all independent paths within a module have been exercised at least once
2. Exercise all logical decision on their true and false sides
3. Execute all loops at their boundaries and within their bounds.
4. Execute all loops at their boundaries and within their bounds.
5. Ensure whether all the possible validity checks and validity lookups have been provided to validate data entry.

Table 6.1.1 User Form Test Cases

T.C	Input	Expected O/P	Actual O/P	Result
1	Valid Username and Password	It should display respective page according to user type.	Respective home is displayed.	Passed Fig 6.1.1
2	Invalid Username and Password	It should give appropriate error message saying “You have entered wrong Username and Password”.	Error message displayed.	Passed Fig 6.1.2
3	Blank field while inserting/update	It should give appropriate error message as “Enter pet breed”.	Displays appropriate Error message.	Passed Fig 6.1.3
4	Reset Password	We will send an otp to the email with instructions to reset password.	It displays the correct output screen	Passed Fig 6.1.4
5	Account verification	It Should take correct password.	It displays account is verified	Passed Fig 6.1.5
6	Logout	It should logout correctly and should not go to the home page.	Logout messages displayed and login page is shown.	Passed Fig 6.1.6

### TESTING OF MAJOR FUNCTIONS OF THE SYSTEM

Log in to the system.

**Case1:** Invalid username and password entered by the user.

**Output:** It should give appropriate error message saying “You have entered wrong Username and Password”.

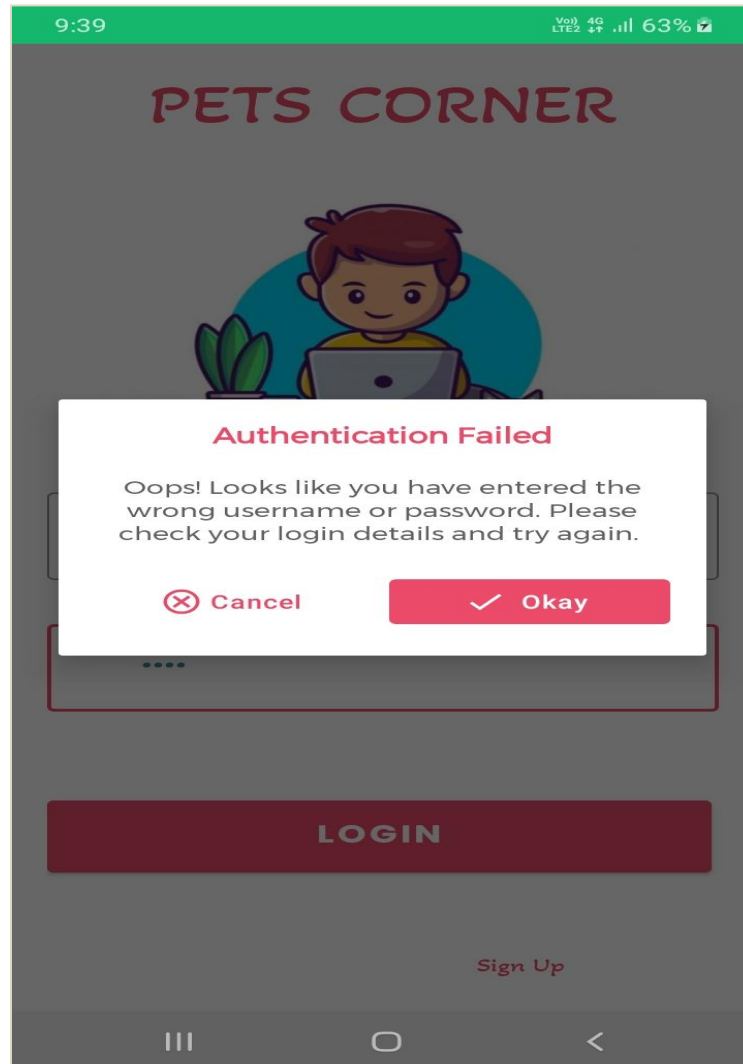


Fig 6.1.1 Invalid Username And Password

**Case 2:** Valid Username and Password credentials.

**Output:** It should display respective page according to user type.

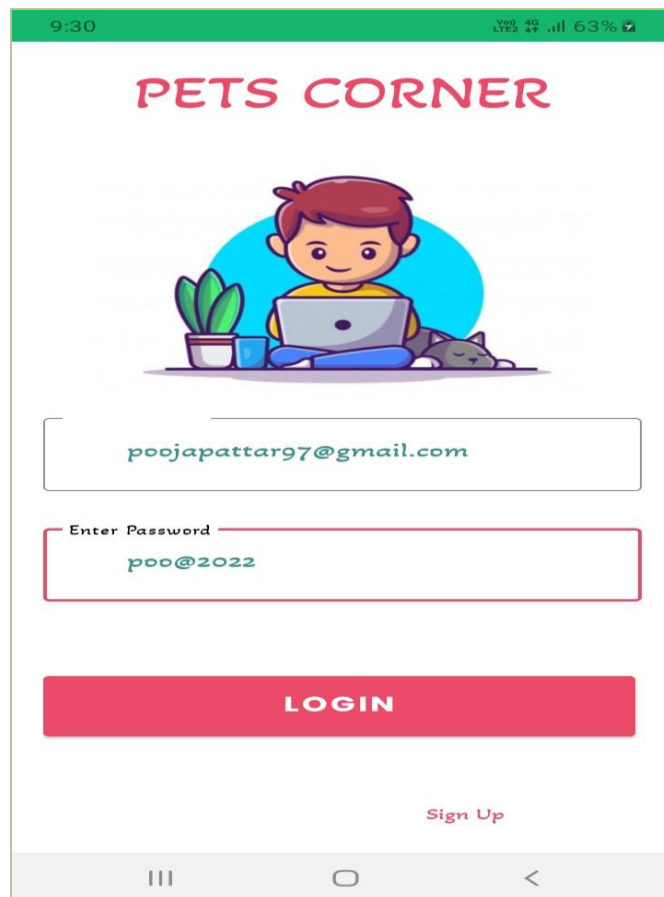


Fig 6.1.2 Valid Username and Password

**Case 3:** Blank field while inserting/update.

**Output:** It should give appropriate error message as “Enter pet breed”.

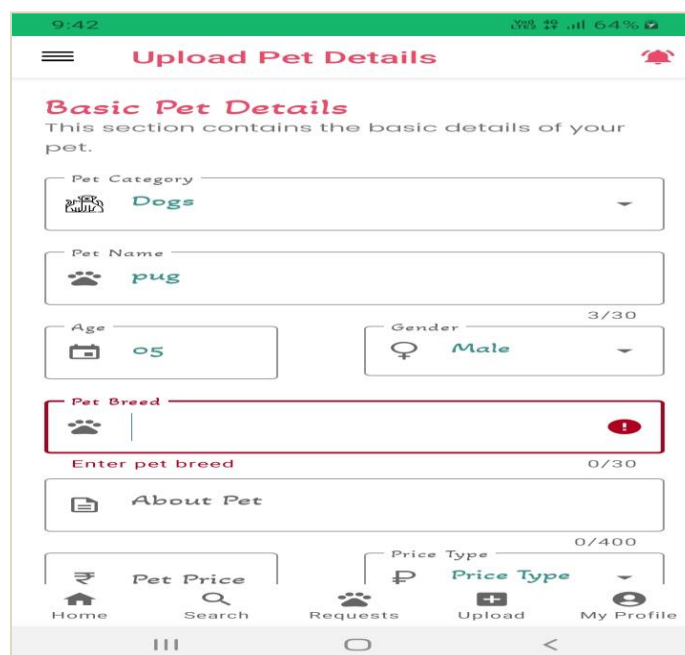


Fig 6.1.3 Blank field while inserting

### Case 4: Reset Password

**Output:** We will send an otp to the email with instructions to reset password.

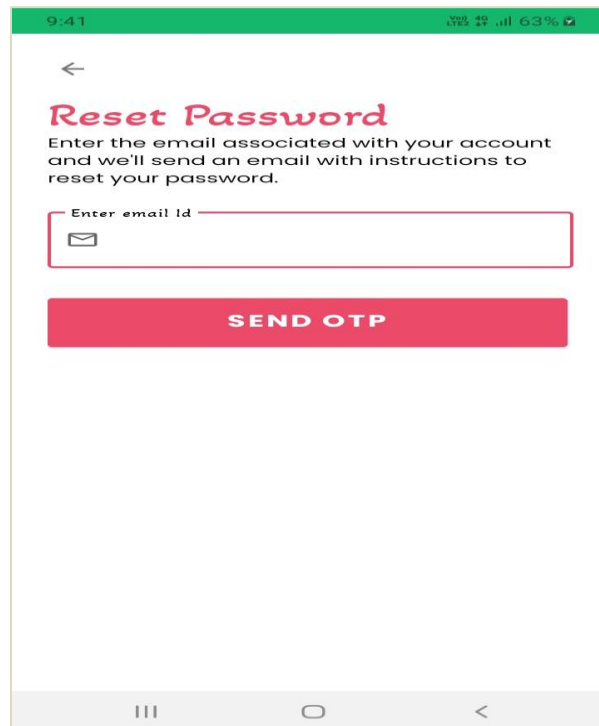


Fig 6.1.4 Reset Password

### Case 5: Account verification

**Output:** It should take correct password.

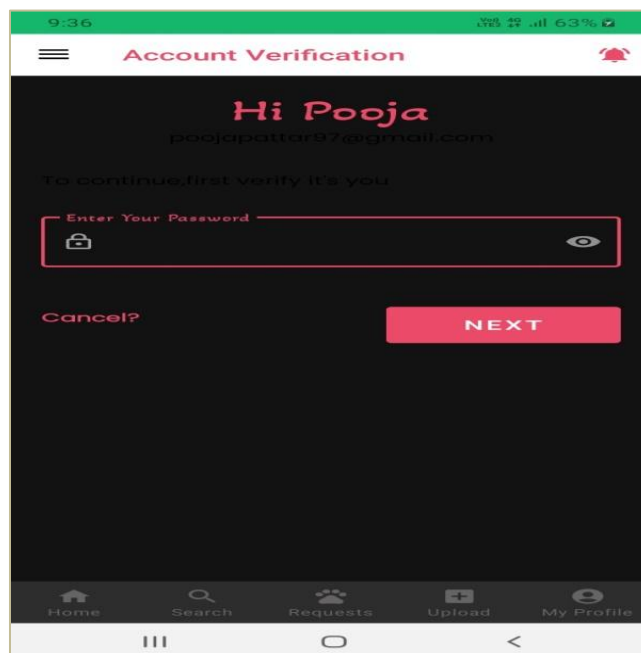


Fig 6.1.5 Account Verification

**Case 6:** Logout.

**Output:** It should logout correctly and should not go to the home page

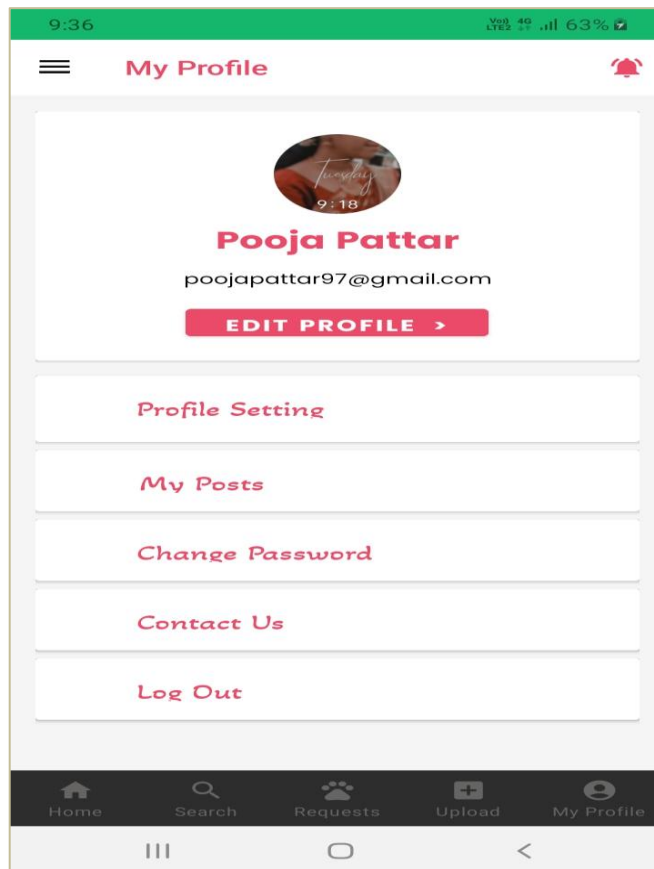


Fig 6.1.6 Logout

## 6.2 UNIT TESTING AND OTHER CLASSES OF TESTING

### Unit Testing

Unit testing involves, checking all the modules in the system individually against the specification produced during the design of the module and for their performance. Unit testing also involves code produced in the coding phase and hence the internal logic of the program. Each module is tested for different test cases design to check each specific combination of conditions handled by the program. Error handlers are included in each module for each event trap and handled the errors. Unit testing is done by providing proper inputs in each page and checking whether the data is in correct format as used to backend.

## **INTEGRATION TESTING**

Integration testing takes as its input modules that have been checked out by unit testing, groups them in larger aggregates, applies tests defined in an Integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing. The purpose of integration testing is to verify functional, performance and reliability requirements placed on major design items. In this project the two main modules (User(Buyer), User(Seller)) are integrated & ensured each module is working for all the conditions & no errors are logged.

## **SYSTEM TESTING**

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing, and as such, should require no knowledge of the inner design of the code or logic. The purpose of integration testing is to detect any inconsistencies between the software units that are integrated together (called *assemblages*) or between any of the assemblages and the hardware. System testing is a more limited type of testing; it seeks to detect defects both within the "inter-assemblages" and also within the system as a whole.

# **CHAPTER-7**

## **SYSTEM SECURITY**

### 7.1 CHECKS AND CONTROL

The protection of computer-based resources that includes hardware, software, data, procedures and people against unauthorized use or natural Disaster is known as System Security.

System Security can be divided into four related issues:

#### SYSTEM SECURITY

It refers to the technical innovations and procedures applied to the hardware and operation systems to protect against deliberate or accidental damage from a defined threat.

Log in to the system.

**Case1:** Invalid Username or password entered by the user.

**Output:** It should give appropriate error message saying “You have entered wrong Username and Password”.

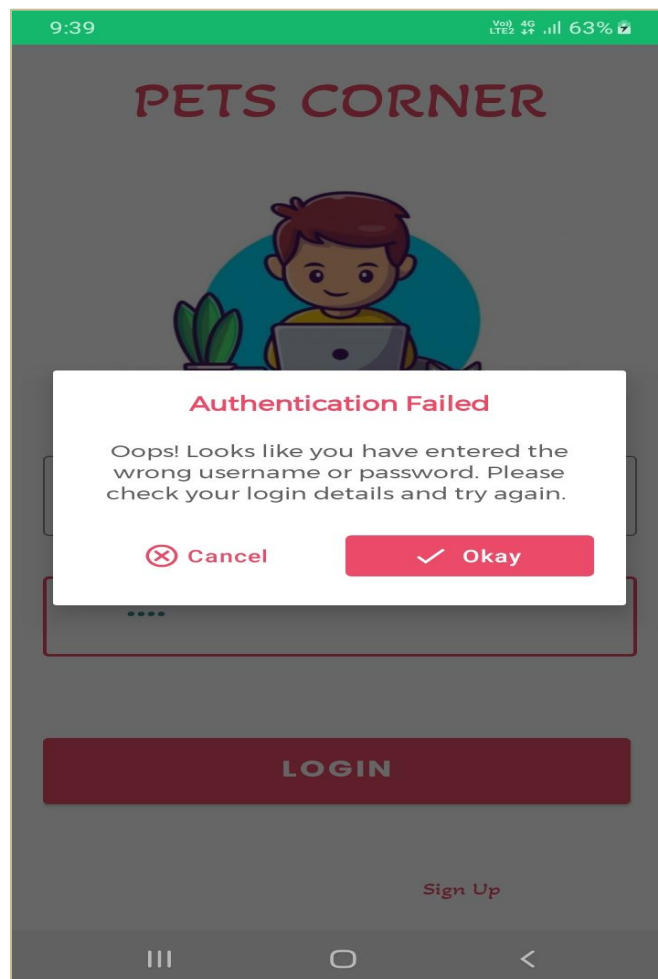


Fig 7.1.1 Invalid Username And Password



**Case 2:** Valid Username and Password credentials.

**Output:** It should display respective page according to user type. And directly displays home page

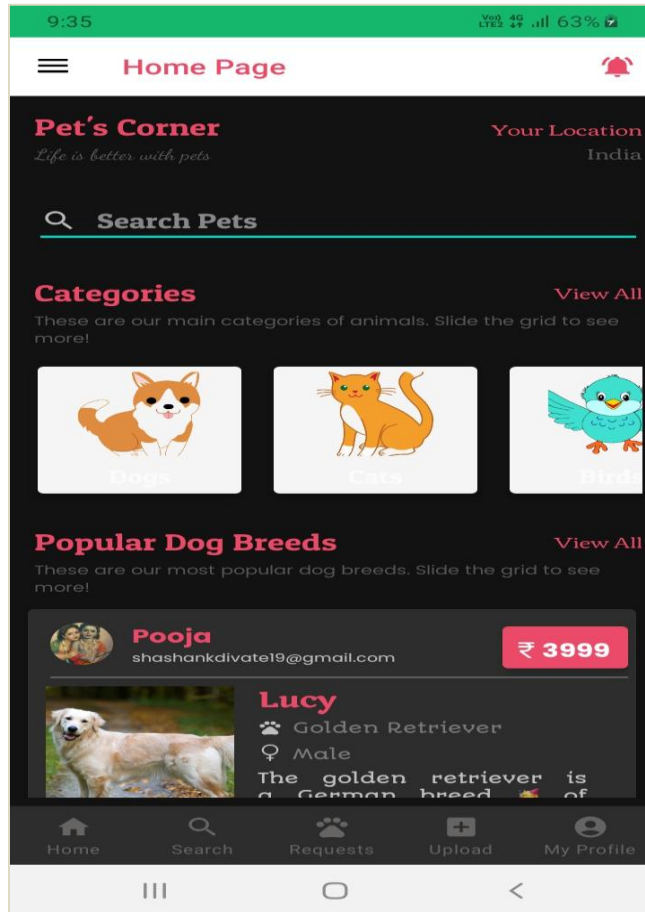


Fig 7.1.2 Valid Username And Password

## 7.2 PASSWORD SECURE

Session can be used to provide page level security means we will check In every page that the session value present or not session id in the sense user \_id or email \_id if the user \_id or email \_id is null then redirect to login page. A password should include a combination of letters, numbers, and characters. A password shouldn't be shared with any other account. A password shouldn't include any of the user's personal information like their address or phone number

# **CHAPTER-8**

# **CONCLUSION**

## **8.1 CONCLUSION**

As part of the project detailed study has been made about the designing and development aspects of the project “Pets corner app using android ” which is an opening to the component world of computerization. We have tried our best to achieve our goals. The project has to meet all the requirements that were collected during analysis and designing phase.

In this project, we will be designing a simple platform for buying and selling pets. Besides these we also provide users with an option to upload/post pet details, events details and they can also do the pet request. Hence the project is developed in such a way that it is able to undergo future enhancement in reliable, secure manner.

## **8.2 LIMITATIONS/ FUTURE SCOPE:**

1. To include all varieties of breeds.
2. Home delivery of pet accessories.
3. An in app chat option between the seller and buyer.
4. In future Online payment gateways can be

# **CHAPTER-9**

# **BIBLIOGRAPHY**

## **9.1 BOOKS**

- a) “Software Engineering”, by Ian Somerville, Sixth Edition. Roger – Pressman, Tata McGraw - Hill Education (2009)
- b) Software Engineering: A Practitioner's Approach 7<sup>th</sup> Edition, Roger – Pressman, Tata McGraw - Hill Education (2010)
- c) Software Engineering, Ian Sommerville, International Computer Science, Series Web Technology: Renuka T Ambigram. Approach 5<sup>th</sup> Edition (1997)
- d) Fundamentals of Database System: Elmasri & Navathe. Approach 4<sup>th</sup> Edition (2007)

## **9.2 WEBSITES**

- 1. <http://w3schools.com> for information on HTML.
- 2. <https://www.tutorialspoint.com/>

## **9.3 FOR DEBUGGING**

- 1. <https://stackoverflow.com/>