A PROJECT REPORT
ON

VETPETSHOP

Veterinary Pet E-Shop Web Application

SUBMITTED IN PARTIAL

FULFILMENT OF

PG DIPLOMA IN ADVANCED COMPUTING (PG-DAC)

UNDER THE GUIDANCE OF

Mr. Swaraj Chaudhari

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AT

CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING

C-DAC, PUNE

ACKNOWLEDGEMENT

The project “VETPET SHOP” was a great learning experience for us and we are submitting this work to Advanced Computing Training School (C- DAC ACTS, Pune).

We are very glad to mention the name of Mr. Swaraj Chaudhari for his valuable guidance to work on this project.

We are highly grateful to Ms. Risha P. R., Manager of ACTS Training Centre, CDAC, for her guidance and support whenever necessary during the course of our journey to acquire PG-Diploma in Advanced Computing (PG-DAC) through CDAC ACTS, Pune.

Our heartfelt thanks go to Mrs. Priyanka Ranade (Course Coordinator, PG-DAC) who gave us all the required support and kind coordination to provide all the necessities to complete the project and throughout the course up to the last day of the course.

From:

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ABSTRACT

Pets, revered for their unwavering companionship and therapeutic qualities, hold a significant place in human history and culture. From ancient times to the modern era, the bond between humans and animals has evolved into a cherished relationship, providing emotional support, a sense of purpose, and even improved well-being. In an age where technology revolutionizes every facet of life, the need for efficient and accessible pet care solutions has become more pronounced than ever.

In our project, we aim to provide a similar implementation of VetPetShop application as a digital marketplace where pet owners can find their perfect match while ensuring the well-being of the animals involved. With a user-friendly interface, comprehensive profiles, and transparent transactions, the application seeks to create a harmonious space for responsible pet ownership and ethical pet trade.

1. INTRODUCTION

VetPetShop, a groundbreaking e-commerce platform that revolutionizes the way we connect with our furry companions and ensure their well-being. With an innovative approach to responsible pet commerce, VetPetShop is redefining the relationship between pet owners, sellers, and the health professionals who care for our beloved animals.

Our platform serves as a bridge, enabling both customers and sellers to engage in a seamless online marketplace where pets find their forever homes. Whether you're looking to welcome a new furry friend into your family or seeking a loving home for your pet, VetPetShop offers a secure and transparent environment for pet transactions. We go beyond the conventional by empowering our customers to become temporary sellers themselves and participating in ethical pet trade.

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2. PROJECT OVERVIEW AND SUMMARY

1. PURPOSE

The purpose of our application is to create an innovative e-commerce platform that facilitates responsible and ethical pet commerce. This platform aims to address the needs of pet enthusiasts, pet owners looking to sell their pets responsibly.

This would help to enhance the lives of pets and pet owners alike, contributing to a more ethical and caring pet industry while nurturing the well-being of our cherished companions.

2. SCOPE

The VetPet Shop will be a web-based E-commerce application which will allow customers to browse, search, and select pets available for adoption or purchase. Sellers, including both professional breeders and temporary sellers, can list their pets for sale while adhering to ethical practices.

3. OVERVIEW TECHNOLOGIES USED

i. FRONT END

- HTML
- CSS
- Bootstrap
- JavaScript
- React

ii. BACK END

- Spring Boot
- Spring Data JPA
- Spring Security

iii. DATABASE MANAGEMENT SYSTEM

- MySQL

B. FEATURES PROVIDED

i. FOR USERS

a. Register – Users can register themselves.
b. Login – Users can login into the portal using valid credentials.
c. Update – Users can update their profile.
d. View – Users can view a pet or a list of pets.
e. Add to cart – Users can add a pet to a cart.
f. Order – Users can order a pet.

ii. FOR SELLERS

a. Add – Sellers can add a pet for selling purpose.
b. Remove – Sellers can delete their pet from the list.
c. Update – Sellers can update pet details.

4. FEASIBILITY STUDY

Feasibility is the determination of whether a project is worth undertaking or not. Before actually recommending the new system, it is important to investigate if it is feasible to develop it.

Before developing and implementing a system, we must make sure that the system is feasible in the following ways:

A. TECHNICAL FEASIBILITY

In this type of feasibility study, the system analyst has to check whether it is possible or not to develop the requested system with the available manpower, software, hardware, etc.

This project makes use of cross-platform software and solutions like Java, and hence can run on any operating system. React, used in front-end, is swift and versatile technology when it comes to delivering the requested page. The combination of Spring Boot, Spring Data JPA and Spring Security for backend make for a fast, easy to set-up and reliable system to interact with the database, as they are secure and transactional in nature. Since the sensitive data of customers and admins need to be stored in a robust and secure database, MySQL database management system was chosen as it is an industry standard.

B. OPERATIONAL FEASIBILITY

In this type of feasibility study, the operation of the system is considered. An analysis is performed on whether it is feasible for the user department to use the application. Thus, the proposed system is said to be operationally feasible only if clients are able to understand the system clearly and correctly, and can use it with ease.

In the design of this project, we always kept user experience in mind. We made an effort to have a good user interface with consistent theme and alluring design to keep the users interested and engaged. In our project, the use of universally known icons and instructions that are easy to understand makes sure that the user will not need any special technical know-how to use the application. We made sure that the information available throughout the application is arranged in a logically coherent and consistent manner, guaranteeing that the users will have a smooth and effortless experience and even enjoy using the application.

C. ECONOMIC FEASIBILITY

In this type of feasibility study, the benefits of the system to the organization are considered by taking into consideration the cost-benefit analysis. All the software and technologies used in our project free, open-source, and widely available, with each of the technologies having an extensive community support. This makes "VetPet Shop" an economically feasible solution to the organizations that wish to implement it.

3. REQUIREMENTS FULFILLED

1. FUNCTIONAL REQUIREMENTS

Following are the functional requirements fulfilled by our project:

User/customer:

- User can login from the system.
- User can view their profile.
- User can update their profile.
- User can view list of pets.
- User can add a pet to cart.

User/Seller:

- Seller can provide pet list.
- Seller can remove pet from list.
- Seller can update their pet details.

2. NON-FUNCTIONAL REQUIREMENTS

Following are the non-functional requirements fulfilled by our project:

- Since the application uses lightweight and established software components that are also cross-platform, it is remarkably performant and has good support for every operating system.
- The use of JavaScript and React for front end and Spring Boot, Spring Data JPA and Spring Security for back end delivers quick response times to admins and customers.
- Card-style UI and well-known icons and symbols used throughout the application provides a consistent theme and user-friendly interface that anyone can grasp easily, even without a technical background.

4. PROJECT DESIGN

1. DATA MODEL

The following tables depict the database design used for "VETPETSHOP" application:

a) users table:-

```
mysql> desc users;
+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| user_id      | bigint       | NO   | PRI | NULL    | auto_increment |
| address      | varchar(255) | YES  |     | NULL    |                |
| dob          | date         | YES  |     | NULL    |                |
| email        | varchar(255) | NO   | UNI | NULL    |                |
| first_name   | varchar(255) | NO   |     | NULL    |                |
| gender       | char(1)      | NO   |     | NULL    |                |
| last_name    | varchar(255) | NO   |     | NULL    |                |
| password     | varchar(255) | NO   |     | NULL    |                |
| phone_number | varchar(255) | YES  | UNI | NULL    |                |
| user_type_id | int          | YES  | MUL | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
10 rows in set (0.00 sec)

mysql>
```

b) user_type table:-

```
mysql> desc user_type;
+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| user_type_id | int          | NO   | PRI | NULL    | auto_increment |
| user_type    | varchar(255) | YES  |     | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql>
```

c) sellers table:-

```
mysql> desc sellers;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| gst_no        | varchar(255) | NO   | PRI | NULL    |       |
| seller_policy | varchar(255) | NO   |     | NULL    |       |
| total_sales   | int          | YES  |     | NULL    |       |
| seller_id     | bigint       | YES  | UNI | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql>
```

d) pets table:-

```
mysql> desc pets;
+-----------------+--------------+------+-----+---------+----------------+
| Field           | Type         | Null | Key | Default | Extra          |
+-----------------+--------------+------+-----+---------+----------------+
| pet_id          | bigint       | NO   | PRI | NULL    | auto_increment |
| description     | text         | NO   |     | NULL    |                |
| gender          | char(1)      | NO   |     | NULL    |                |
| height          | double       | NO   |     | NULL    |                |
| medical_details | text         | YES  |     | NULL    |                |
| pet_age         | int          | NO   |     | NULL    |                |
| pet_colour      | varchar(255) | NO   |     | NULL    |                |
| pet_images      | longtext     | YES  |     | NULL    |                |
| price           | double       | NO   |     | NULL    |                |
| weight          | double       | NO   |     | NULL    |                |
| breed_id        | int          | NO   | MUL | NULL    |                |
| seller_id       | bigint       | NO   | MUL | NULL    |                |
+-----------------+--------------+------+-----+---------+----------------+
12 rows in set (0.00 sec)

mysql>
```

e) pet_category table:-

```
mysql> desc pet_category;
+-----------------+--------------+------+-----+---------+----------------+
| Field           | Type         | Null | Key | Default | Extra          |
+-----------------+--------------+------+-----+---------+----------------+
| pet_category_id | int          | NO   | PRI | NULL    | auto_increment |
| pet_category    | varchar(255) | YES  |     | NULL    |                |
+-----------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql>
```

f) pet breed table:-

```
mysql> desc pet_breed;
+-------------------+--------------+------+-----+---------+----------------+
| Field             | Type         | Null | Key | Default | Extra          |
+-------------------+--------------+------+-----+---------+----------------+
| pet_breed_id      | int          | NO   | PRI | NULL    | auto_increment |
| breed_description | text         | YES  |     | NULL    |                |
| breed_name        | varchar(255) | YES  |     | NULL    |                |
| pet_category_id   | int          | YES  | MUL | NULL    |                |
+-------------------+--------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)

mysql>
```

g) cart table:-

```
mysql> desc cart;
+-------------+--------+------+-----+---------+----------------+
| Field       | Type   | Null | Key | Default | Extra          |
+-------------+--------+------+-----+---------+----------------+
| cart_id     | bigint | NO   | PRI | NULL    | auto_increment |
| total_items | int    | YES  |     | NULL    |                |
| user_id     | bigint | YES  | MUL | NULL    |                |
+-------------+--------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql>
```

h) cart items table:-

```
mysql> desc cart_items;
+----------+--------------+------+-----+---------+----------------+
| Field    | Type         | Null | Key | Default | Extra          |
+----------+--------------+------+-----+---------+----------------+
| item_id  | bigint       | NO   | PRI | NULL    | auto_increment |
| quantity | int          | YES  |     | NULL    |                |
| cart_id  | bigint       | YES  | MUL | NULL    |                |
| order_id | varchar(255) | YES  | MUL | NULL    |                |
| pet_id   | bigint       | YES  | MUL | NULL    |                |
+----------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql>
```

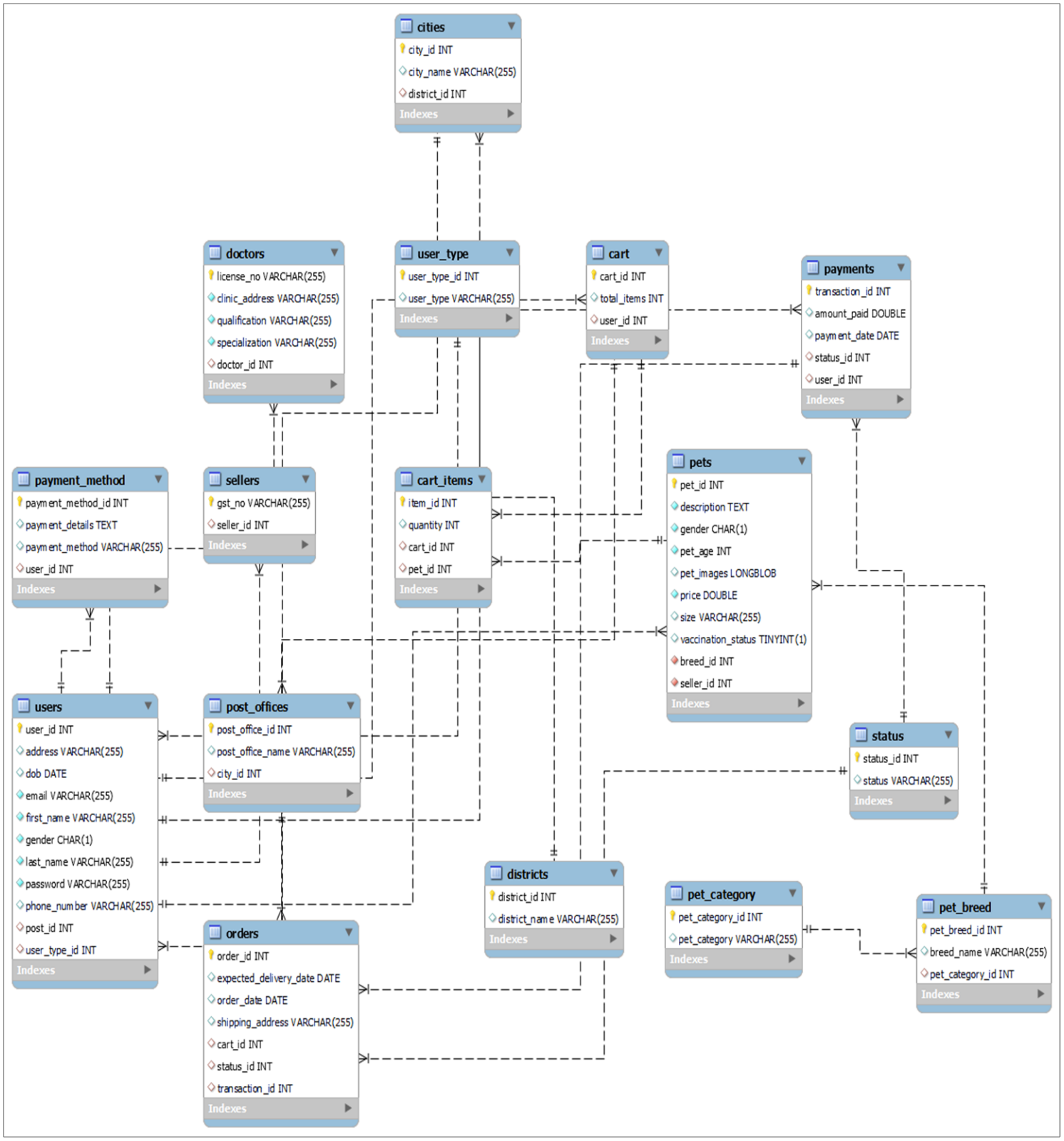
i) orders table:-

```
mysql> desc orders;
+------------------------+--------------+------+-----+---------+-------+
| Field                  | Type         | Null | Key | Default | Extra |
+------------------------+--------------+------+-----+---------+-------+
| order_id               | varchar(255) | NO   | PRI | NULL    |       |
| discount_given         | int          | YES  |     | NULL    |       |
| expected_delivery_date | date         | YES  |     | NULL    |       |
| order_date             | date         | YES  |     | NULL    |       |
| shipping_address       | varchar(255) | YES  |     | NULL    |       |
| status_id              | varchar(255) | YES  |     | NULL    |       |
| transaction_id         | varchar(255) | YES  | MUL | NULL    |       |
+------------------------+--------------+------+-----+---------+-------+
7 rows in set (0.00 sec)

mysql>
```

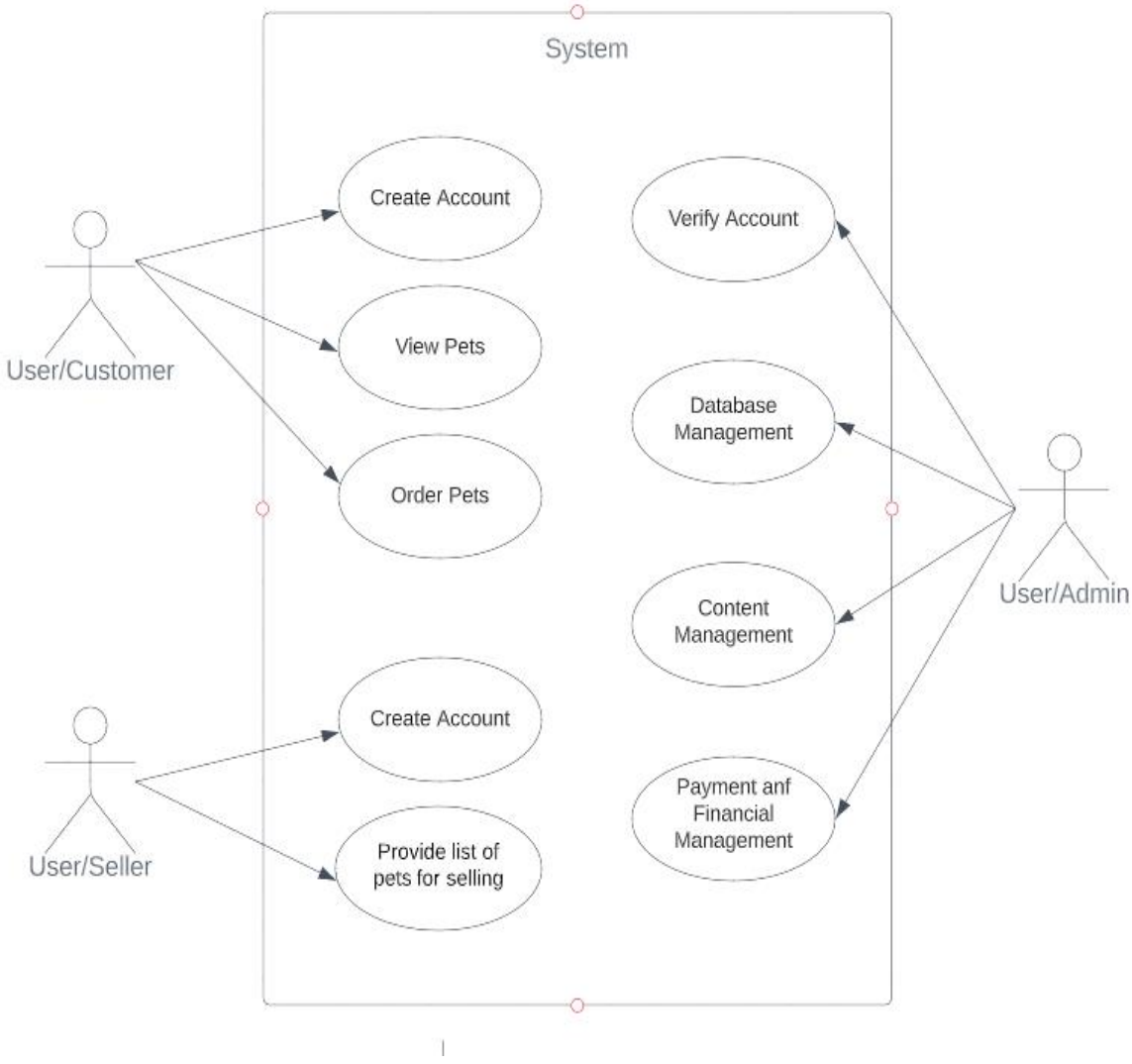
j) payments table:-

```
mysql> desc payments;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| transaction_id | varchar(255) | NO   | PRI | NULL    |       |
| amount_paid    | double       | YES  |     | NULL    |       |
| payment_date   | datetime(6)  | YES  |     | NULL    |       |
| user_id        | bigint       | YES  | MUL | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql>
```

2. ER DIAGRAM

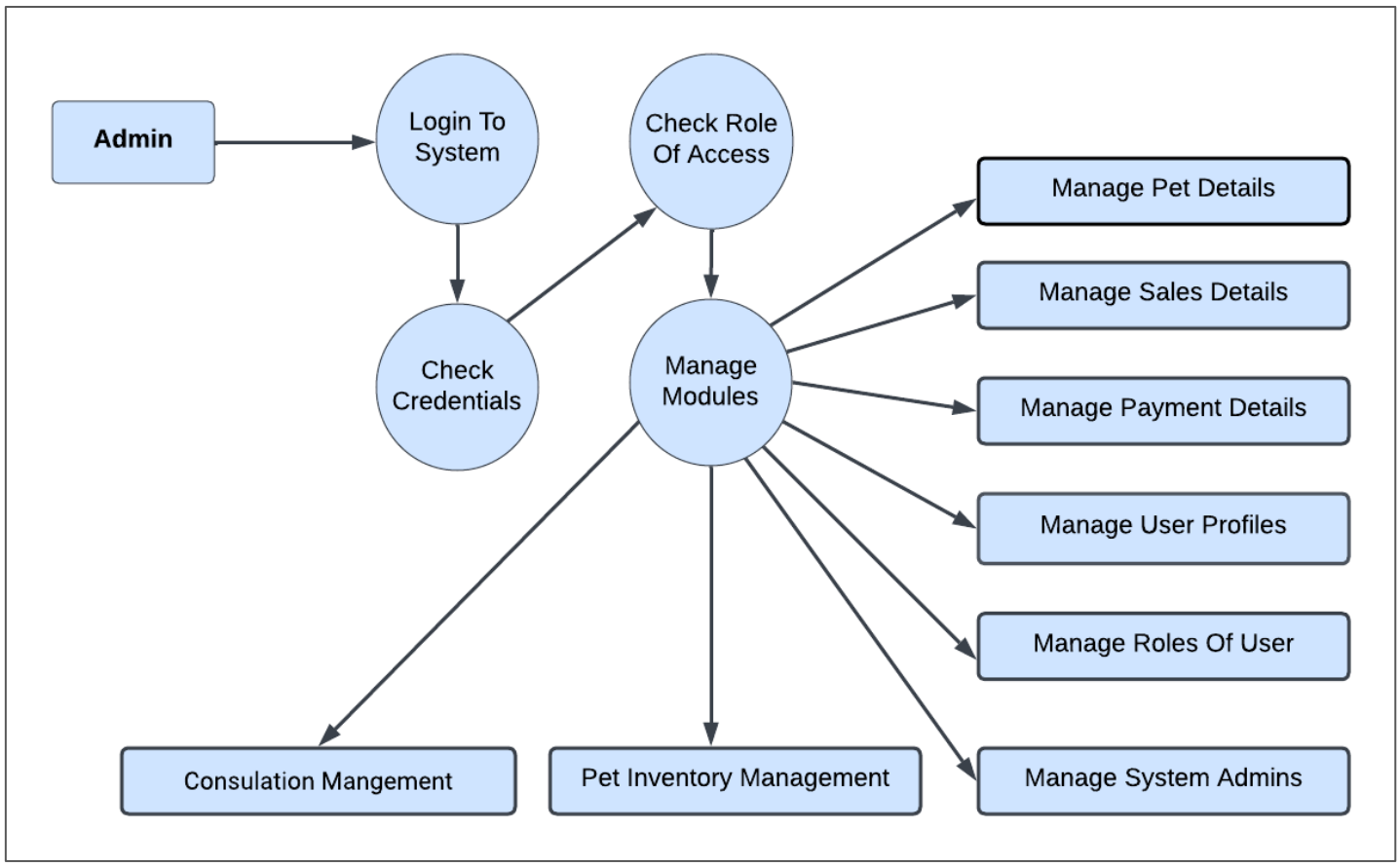

cities
city_id INT
city_name VARCHAR(255)
district_id INT
Indexes
doctors
license_no VARCHAR(255)
clinic_address VARCHAR(255)
qualification VARCHAR(255)
specialization VARCHAR(255)
doctor_id INT
Indexes
user_type
user_type_id INT
user_type VARCHAR(255)
Indexes
cart
cart_id INT
total_items INT
user_id INT
Indexes
payments
transaction_id INT
amount_paid DOUBLE
payment_date DATE
status_id INT
user_id INT
Indexes
payment_method
payment_method_id INT
payment_details TEXT
payment_method VARCHAR(255)
user_id INT
Indexes
sellers
gst_no VARCHAR(255)
seller_id INT
Indexes
cart_items
item_id INT
quantity INT
cart_id INT
pet_id INT
Indexes
pets
pet_id INT
description TEXT
gender CHAR(1)
pet_age INT
pet_images LONGBLOB
price DOUBLE
size VARCHAR(255)
vaccination_status TINYINT(1)
breed_id INT
seller_id INT
Indexes
users
user_id INT
address VARCHAR(255)
dob DATE
email VARCHAR(255)
first_name VARCHAR(255)
gender CHAR(1)
last_name VARCHAR(255)
password VARCHAR(255)
phone_number VARCHAR(255)
post_id INT
user_type_id INT
Indexes
post_offices
post_office_id INT
post_office_name VARCHAR(255)
city_id INT
Indexes
status
status_id INT
status VARCHAR(255)
Indexes
districts
district_id INT
district_name VARCHAR(255)
Indexes
pet_category
pet_category_id INT
pet_category VARCHAR(255)
Indexes
pet_breed
pet_breed_id INT
breed_name VARCHAR(255)
pet_category_id INT
Indexes
orders
order_id INT
expected_delivery_date DATE
order_date DATE
shipping_address VARCHAR(255)
cart_id INT
status_id INT
transaction_id INT
Indexes

3. USE CASE DIAGRAM

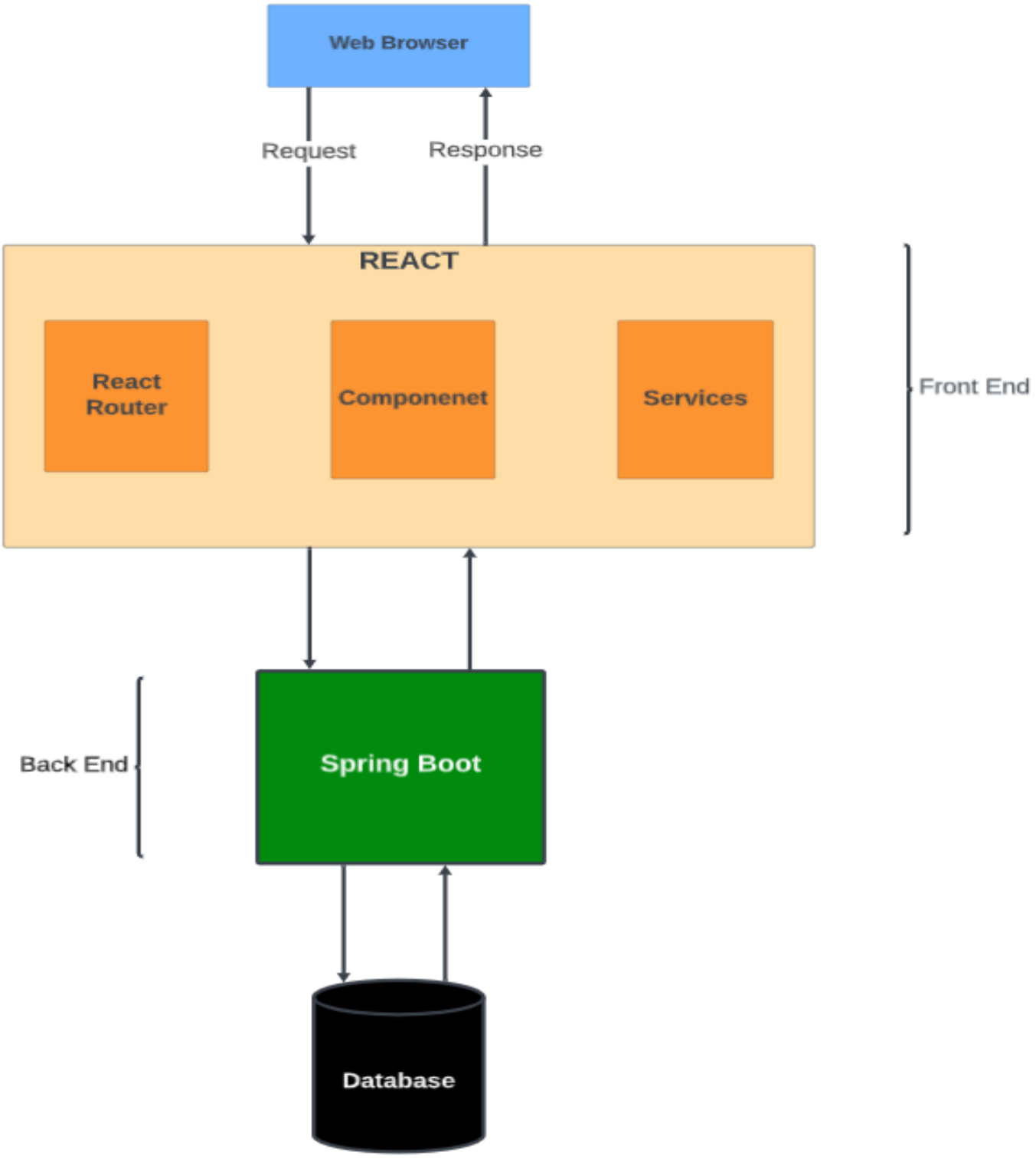


4. DATA FLOW DIAGRAM

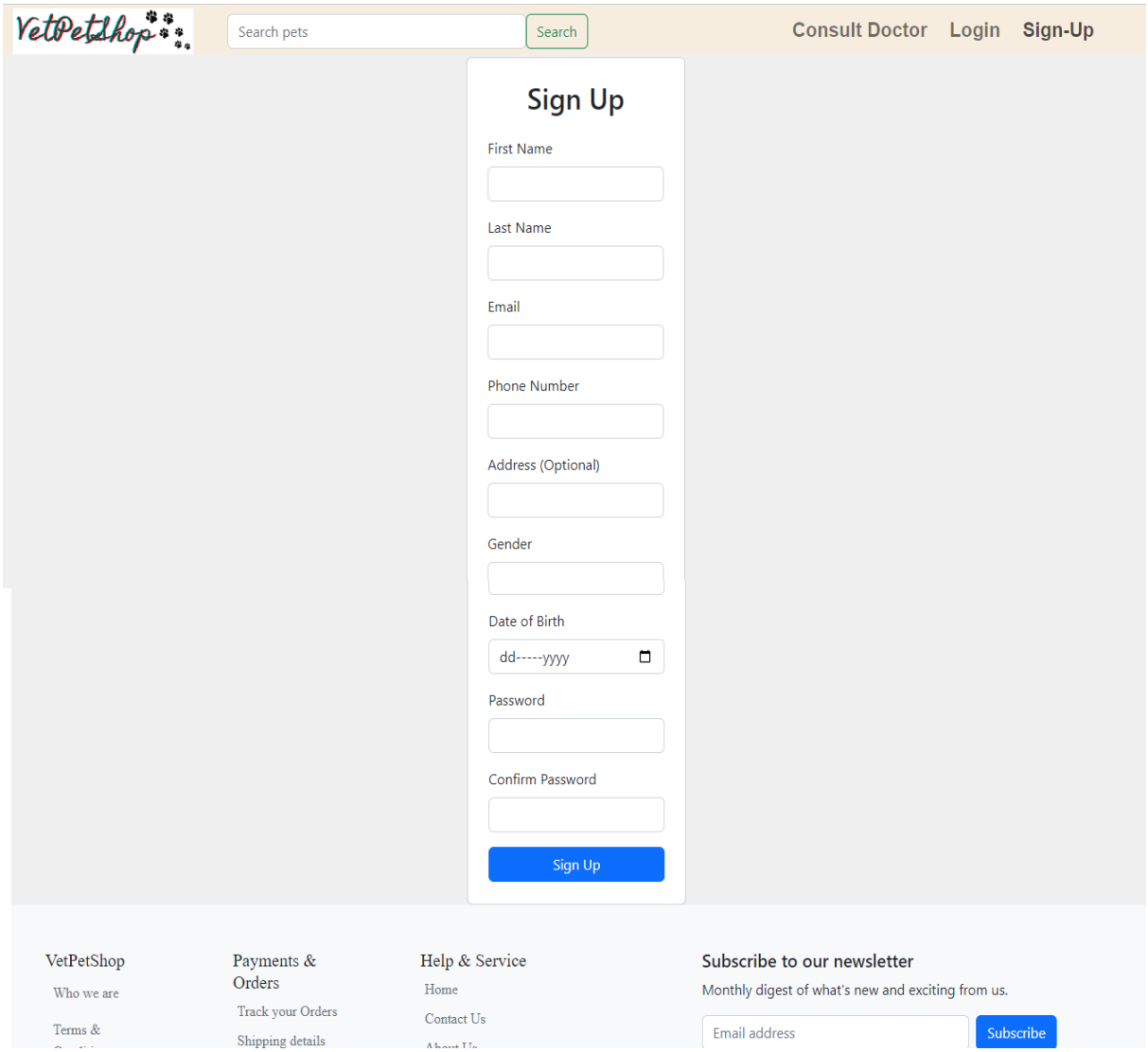
Level-1

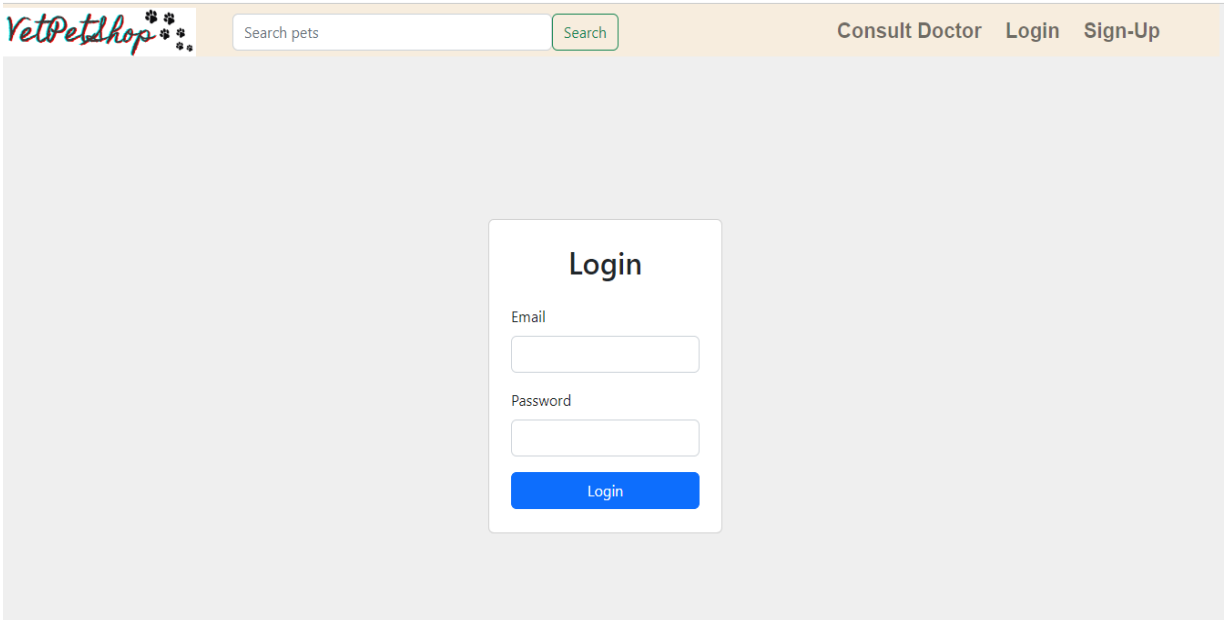


5. SYSTEM ARCHITECTURE DIAGRAM



6. PROJECT SCREENSHOTS




VetPetshop
Search pets
Search
Consult Doctor
Login
Sign-Up
Login
Email
Password
Login

VetPetShop

Search pets | Search

Consult Doctor | Login | Sign-Up

Animals are such agreeable friends; they ask no questions; they pass no criticisms

Having a pet in your life makes your life happier

Pets are humanizing. They remind us we have an obligation and responsibility to preserve and nurture and care for all life

Pets are one of the most beautiful gifts we have

African Turtle
price, rating
Add to Cart

White Pigeon
price, rating
Add to Cart

Somali Cat
price, rating
Add to Cart

Black Rabbit
price, rating
Add to Cart

Goldfish
price, rating
Add to Cart

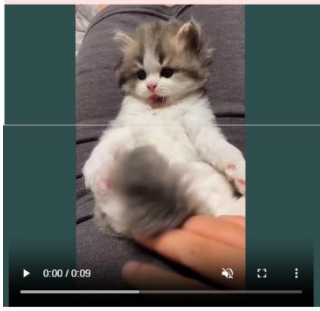
Cockatiel Parrot
price, rating
Add to Cart

Pet Dogs

Dogs make for the best friends, and it's only right that we celebrate them for all the joy and love they've given us.

Interacting and playing with dogs helps your mind relax making you forget about your worries.

--- Get a pet dog

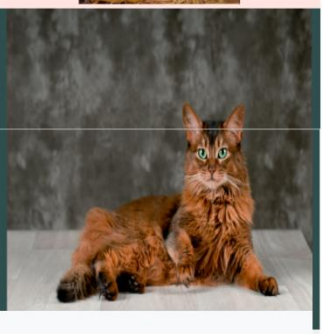


Pet Cats

Cats are friendly and playful in nature; cats are connoisseurs of comfort. A kitten is the delight of a household. All day long a comedy is played out by an incomparable actor

Interacting and playing with cat helps your mind relax making you forget about your worries.

--- Get a pet cat



VetPetShop
- Who we are
- Terms & Conditions
- Features
- We respect your Privacy
- Returns & Refunds Policy

Payments & Orders
- Track your Orders
- Shipping details
- Cancellations
- Returns
- FAQs

Help & Service
- Home
- Contact Us
- About Us
- FAQs

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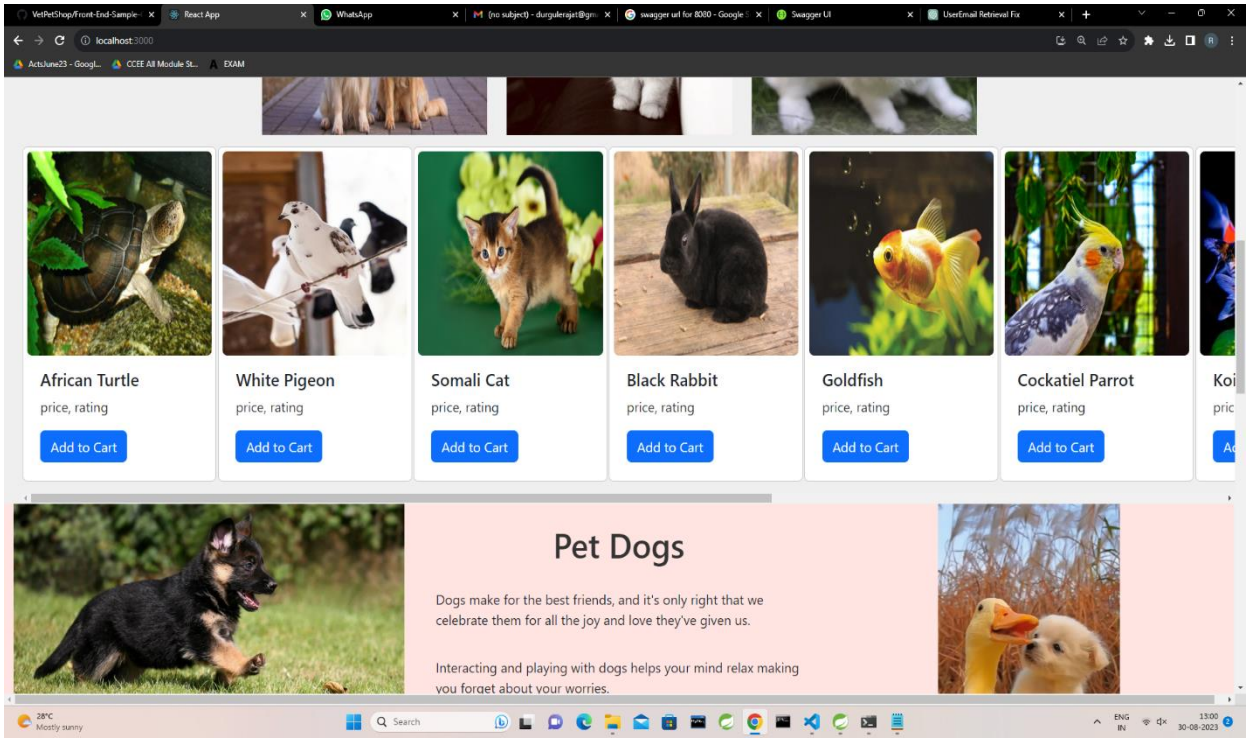
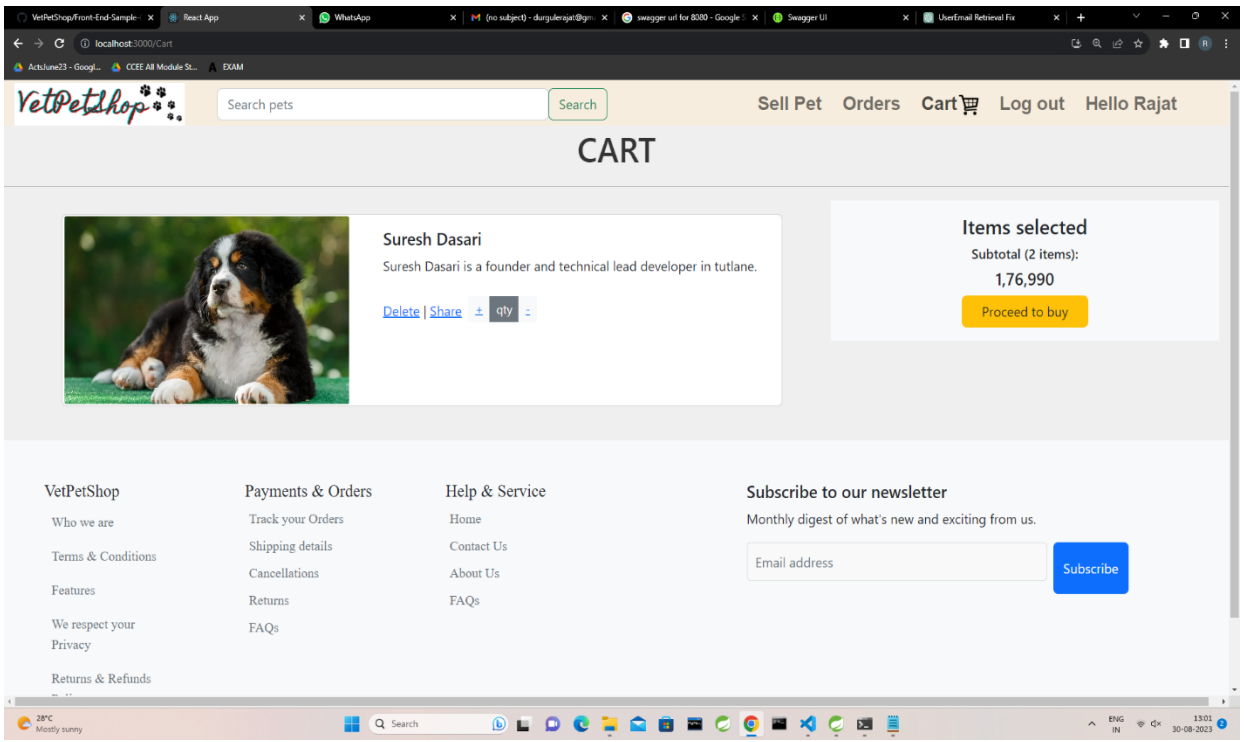

localhost:3000
African Turtle
price, rating
Add to Cart
White Pigeon
price, rating
Add to Cart
Somali Cat
price, rating
Add to Cart
Black Rabbit
price, rating
Add to Cart
Goldfish
price, rating
Add to Cart
Cockatiel Parrot
price, rating
Add to Cart
Pet Dogs
Dogs make for the best friends, and it's only right that we celebrate them for all the joy and love they've given us.
Interacting and playing with dogs helps your mind relax making you forget about your worries.


localhost:3000/Cart
VetPetShop
Search pets
Search
Sell Pet
Orders
Cart
Log out
Hello Rajat
CART
Suresh Dasari
Suresh Dasari is a founder and technical lead developer in tutlane.
Delete | Share + qty -
Items selected
Subtotal (2 items):
1,76,990
Proceed to buy
VetPetShop
Who we are
Terms & Conditions
Features
We respect your Privacy
Returns & Refunds
Payments & Orders
Track your Orders
Shipping details
Cancellations
Returns
FAQs
Help & Service
Home
Contact Us
About Us
FAQs
Subscribe to our newsletter
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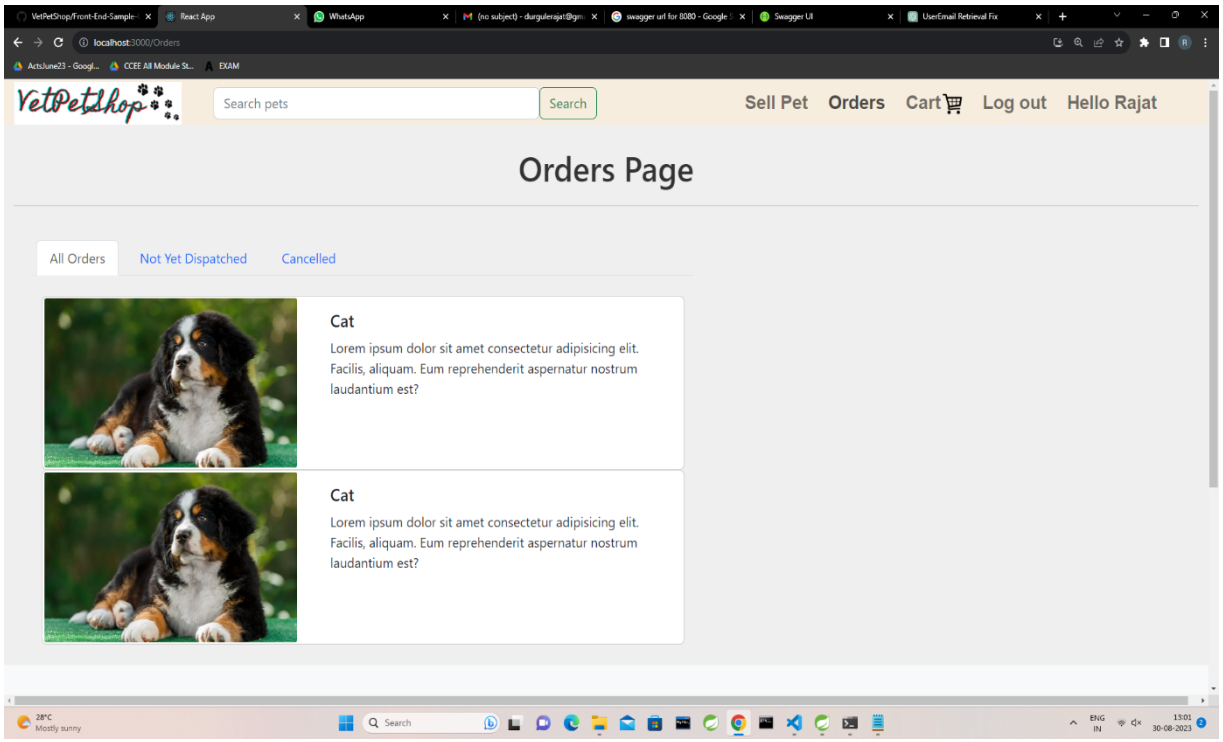
VetPetShop
Search pets
Search
Sell Pet
Orders
Cart
Log out
Hello Rajat
Orders Page
All Orders
Not Yet Dispatched
Cancelled
Cat
Lorem ipsum dolor sit amet consectetur adipisicing elit. Facilis, aliquam. Eum reprehenderit aspernatur nostrum laudantium est?
Cat
Lorem ipsum dolor sit amet consectetur adipisicing elit. Facilis, aliquam. Eum reprehenderit aspernatur nostrum laudantium est?

7. CONCLUSION

“VETPET SHOP” is an E-commerce web application, was developed by our project team to provide a platform by facilitating the buying and selling of pets through a user-friendly interface, the platform fosters a community where both seasoned sellers and passionate pet owners can connect and exchange their furry companions responsibly.

Furthermore, the integration of veterinary consultancy services marks a significant step forward in pet care. Enabling customers to seek advice from verified veterinary professionals ensures that pets' health and welfare remain at the forefront.

As the digital realm continues to shape various industries, VetPetShop stands as a prime example of leveraging technology to enhance the way pets are bought, sold, and cared for. By amalgamating convenience, community, and expertise, this platform not only transforms the e-commerce landscape but also fosters a positive and ethical environment for pets .

8. FUTURE SCOPE

Using whatever we have learnt over the duration of this course, we tried to make our project as user-friendly and gave it as many features as possible in the limited time allotted for the project work. That said, there are certainly more features that can be added to our application. Some of those are mentioned below:

Enhanced User Experience: Continuous refinement of the user interface can ensure that customers and sellers find it easier to navigate and conduct transactions on the platform. This could involve incorporating AI-driven recommendations for pet matches, streamlining the selling process, and improving overall site performance.

Global Expansion: Initially starting in a specific region, VetPetShop could explore expansion into other geographic areas, capitalizing on the international demand for pets and pet-related products. This expansion would require adapting to local regulations and cultural preferences while maintaining the platform's core values.

Chatroom: A chatbot interface will connect customers with verified veterinary doctors, enabling them to seek professional advice, ask questions, and receive tailored recommendations for their pets' well-being.

9. REFERENCES

Following is the list of websites we referred during the course of our project:

1. https://getbootstrap.com/docs/5.1/getting-started/introduction/
2. https://www.baeldung.com/
3. https://www.w3schools.com/
4. https://docs.spring.io/spring-data/jpa/docs/current/reference
5. https://javaee.github.io/javaee-spec/javadocs/
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