

PETDOTE

An E-commerce Website for Pet Products

Submitted in partial fulfillment of the requirements
of the Mini-Project 1 for Third Year of

Bachelors of Engineering

by

Tanya Mishra - 29

Prayag Mayekar - 27

Sejal Thatthera - 62

Ansh Tiwari - 63

Guide:

Prof. Shiburaj Pappu



Department of Computer Engineering
Rizvi College of Engineering



University of Mumbai

2022-2023

CERTIFICATE

This is to certify that the mini-project entitled “**PETDOTE – An E-commerce Website for Pet Products**” is a bonafide work of “**Tanya Mishra (Roll No.:29) Prayag Mayekar (Roll No.:27)** , **Sejal Thattera (Roll No.:62)** , **Ansh Tiwari (Roll No.:63)** ” submitted to the University of Mumbai in partial fulfillment of the requirement for the Mini-Project 1 for Third Year of the Bachelor of Engineering in “**Computer Engineering**”.

Prof. Shiburaj Pappu

Guide

Prof. Shiburaj Pappu

Head of Department

Dr. Varsha Shah

Principal

(External)

Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

(Signature)

Tanya Mishra – 29

Prayag Mayekar – 27

Sejal Thathera – 62

Ansh Tiwari - 63

Date:

ABSTRACT

Petdate - An e-commerce website for pet products.

It's a website that is dedicated to pet products. It includes safe and pet-friendly food and hygiene-related products with their pictures and prices. users can directly buy the desired things or add them to the cart for future purchases.

The goal of this project is to develop a website for pet parents to get all the required products for their pets in one place. The common features of this e-commerce site include the displaying of available products with their specific pictures and prices, the option to buy them, add them to the shopping cart, payment, billing and delivery

The contents of our website are :-

- 1) Home page
- 2) About us
- 3) Tracker
- 4) Contact us
- 5) add to cart button
- 6) quick view button
- 7) checkout button

Index

Sr. No	Title	Page No
1.	Introduction	7
2.	Review and Literature	8
2.1.	Paper 1	8
2.2.	Paper 2	9
3.	Theory, Methodology and Algorithm	10
4.	Results and Discussions	
5.	Conclusion	16
6.	References	20
7.	Appendix	21
8.	Acknowledgement	22

List of Figures

Sr. No	Title	Page No
1.1.	Data flow diagram	15

Chapter 1

Introduction

Modern lifestyle has brought about market potential for many niches which were previously not in-demand. The best example for this is the online pet supplies business. Until a few years ago, pet products did not have a huge market in India. As pet ownership increases, this market is soaring.

The pet food market alone is growing at about 13-15% annually, according to Statista. This means that starting an online pet store can be profitable if you target the right audience.

So, if you're contemplating on buying pet supplies online, Petdote is the right choice.

Most of the pet owners have trouble finding the right website for their pet products. Even if they find one, it lacks services like pricing, good quality etc. Now a days for humans you can buy anything and everything online it will just get delivered very easily, and when it comes to pets there are very limited options or offline stores available.

We assure in guarantee and in warranty of products for your pets and to deliver it as soon as possible and making sure for a smooth and simple return procedure.

Chapter 2

Review of Literature

Paper 1

Django based ecommerce website framework Robin Robert, john aktiskon faculty of web framework New zealand public university

Traditionally, customers are used to buying the products at the real, in other words, factual shops or supermarkets. Big to small scale business that relied on the traditional incur a lot of consequence due to the lockdown issues. Some tend to move towards using social media platforms like Facebook to sell their product. However, the social media platforms have been beneficial for marketing purposes alone but leaves the whole task of customer and massive order management via direct messaging (DM), which takes a lot of time to respond to all customers. In addition, everyone tends to use social media, posing a great challenge to differentiate between scammers (fraudsters) and legit sellers. Present paper is an expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping.

Shopping convenience, information seeking, social contact, and diversity affects the consumer attitude towards online shopping. The impossibility of product testing, problems with complaints, product return and misuse of personal data are the main doubts regarding on-line shopping

Keywords: Python, Django, SQL-lite3, Bootstrap 3, CSS, HTML, ecommerce, customer orders Fashion Shop The e-commerce website will feature the online shopping facility of various fashion products under a single web space. The proposed web application will allow business personnel to make their total business using it and increase their reachability thousands of times more than today they have, over the internet. Cost estimation covers the accurate; estimations of cost and effort required for the project Cost estimation in application development project includes the set of procedures and techniques that will be utilized, required to produce by organisation for development (Alex,2013). To demonstrate knowledge learnt in class, tech communities and online materials, I will undertake the entire project alone even though it requires a team of 6 or more.

Paper 2

An Adaptive E-Commerce Application using Web Framework Technology and Machine Learning

Georgia Isaac, Sofia Meacham, Hamed Hamzeh, Angelos Stefanidis, Keith Phalp

Faculty of Science and Technology, Bournemouth University, Fern Barrow, Poole,

Dorset, BH12 5BB, UK

This improvement of interface interaction can be achieved utilising information stored in big data form, and processed through machine learning techniques, providing the user with more personalised recommendations .Machine learning algorithms can be implemented alongside a user interface using various web technologies. Drupal's built-in recommender API/module provides the developer with two recommendation options; “users who browsed this node also browsed”, and “recommended for you” , an effective method for implementing machine learning algorithms with a user interface.

Python-based web frameworks such as Django have been utilised to create systems that use aspects of machine learning, namely feature extraction and classification, to generate item combinations for users Alongside its ease of use, the framework's Python baselines enable the use of powerful scientific libraries that were explored when considering the implementation of machine learning. The latest research on AI and its interfaces though, suggests that more is needed to establish trustability on AI decisions and interfaces leading to the Explainable AI paradigm.

Explainable AI, is a paradigm described by DARPA as a capability that allows for the understandability, manageability, and essentially trustability of AI, required to resolve the non-intuitive, opaque, and incomprehensibility nature of machine learning .

Chapter 3

Theory , Methodology and Algorithm

Mapping data across the pet industry is notoriously difficult. Unlike fashion Market, Health and Wellness, and the beauty industry, no single source of market research exists. Globally, the pet care market has grown to \$261 billion in 2022; up from \$245 billion in 2021. An estimated 6.1% compounded annual growth rate (CAGR), will catapult that figure to \$350 billion by 2027.

1. Ecommerce gives pet owners exactly what they want...

- Convenience and comfort
- Product information and choice
- Pricing comparisons that make value clear
- Devoted focus on customer relationships

The traditional model relied upon by the major industry players clashes with what customers have come to expect in the world of digital. This digital disconnect offers an opening for ecommerce brands to leap up and capture market share. Their opportunity lies in creating a unique brand identity within their pet market niche and the advantage of ridding themselves of middleman margins in comparison to mass-market pet brands. Looking to the future, it's a game of how high will ecommerce sales go. However, to focus on the sales numbers alone is to miss an even more compelling signal: a generational shift.

2. Pet Ownership Demographics and Preferences

No longer do Baby Boomers represent the largest portion of pet owners; that title now belongs to Millennials. Pet brands who will win the future of the industry must understand how Millennials differ from the other generations. Digital purchasing power cannot go without emphasizing the importance of marketing within that space. Millennials nearly double baby boomers in relation to time spent on social media: 90.4% of millennials are active social media users compared to 48.2% of Baby Boomers (eMarketer, 2019). By nature of how users natively wield social, the pet category seamlessly fits within the realm of sharable content. Thus, retailers who meet millennials where they're at — even if that means entering new world created by Web3 — can be a make or break difference for brands looking for competitive channel advantage.

3. Advantages of using online platform :

Convenience : I can shop anytime , any place. Good Value due to free shipping. It can be easier for the Product Selection and Price comparision. Easier to get product information and reviews. Competitive pricing .

4. Pet Food Market :-

At \$91.1 billion worldwide, pet food represents the single largest niche within the larger space. Within the United States' 2020 market volume of \$30.9M, most revenue is generated by the food segment, which also includes treats and

supplements. Add to this the potential for premium pet food products within the market segment. Natural and organic food products tend to come at a higher price tag, affording operators to earn greater markups. An increasing penetration of retail sales has augmented the growth of the pet food market. At the same time, availability of pet food on ecommerce platforms entices consumers with convenience and the stripping away of physical shopping constraints.

5. **Pet Care and Services** :- The pet services market includes grooming, boarding, training, and care. Over the past five years, it has been the fastest-growing product segment under the industry umbrella. With more and more owners considering their pets as family, its rise is driven by interest in pampering and specialty services for furry family members. Alongside it is the veterinary care industry, which has undergone growth as a result of mass household penetration.
6. **Pet Products and Services** :- With food and pet care holding the top two spots in terms of industry sales, there are more promising prospects within the pet supply market because it is slower growing and encompasses niche products like clothing, food bowls, collars, and carriers. A key driver for this industry will be the wide range of availability of fashionable and multifunctional pet accessories.

Detailed information, lengthy derivations, raw experimental observations etc. are to be presented in the separate appendices, which shall be numbered in Roman Capitals (e.g. “Appendix I”).

Record of all procedures and Results:

Registration: This procedure allows the customers to sign in before making an order. Managers of the website is created by system admin.

Product: This module contains the details of all products in the store

Price: Manages Prices of products

Shopping: Manages the basic flow of orders. It's the procedure by which a client places an order

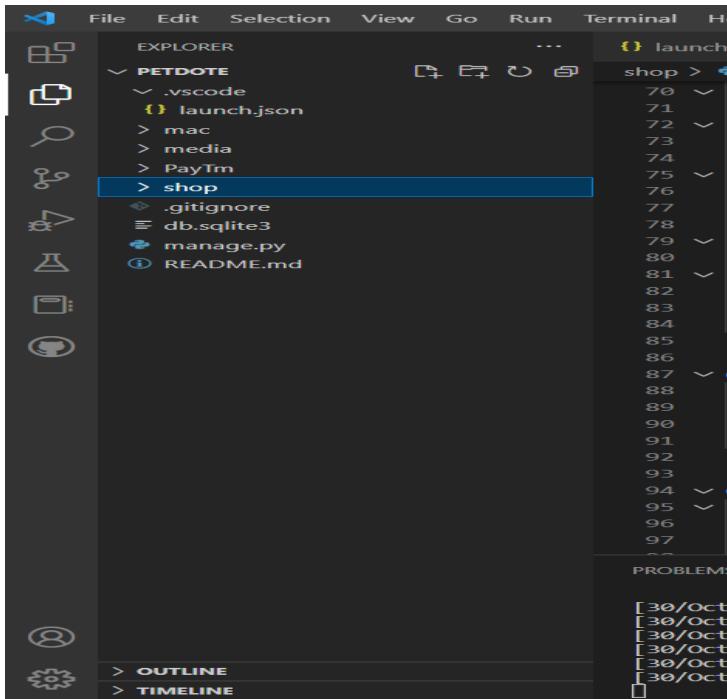
Payment: Customer makes payment at this stage. However, this system does not have a real payment system.

Search: Customers are able to search for specific product through this procedure

Layout: Customers view products from the homepage. They can Mouse over to display product description.

Administration: The system admin / business managers access the admin dashboard that allows them to add products, view and confirm orders.

Structure of the Project Files:



Django is a Model View Control (MVC) framework

- Mange.py

-This file is used basically as a command-line utility and for deploying, debugging, or running our web application. It contains code for run-server, or make migrations or migrations, etc. that we use in the shell. Anyway, we do not need to make any changes to the file.

- Db.sqlite3 is the database file.

- Static folder contains all the static files like CSS and images.

- Env folder is the project specific development environment. Its created through a command
'virtualenv Env'

- E comm folder is the Django projects consisting of in it, admin, models, views, apps and forms.

- Models are basically the blueprints of the database we are using and hence contain the information regarding attributes and the fields etc of the database.

- Views is a crucial one, it contains all the Views (usually as classes). Views.py can be considered as a file that interacts with the client. Views are a user interface for what we see when we render a Django Web application.

- URLs Just like the project urls.py file, this file handles all the URLs of our web application.

- Ecommerce

folder is the Django application directory consisting of the following essential files.

- `Init.py`

This file remains empty and is present them only to tell that this particular directory is a package.

- `Settings.py`

This file is present for adding all the applications and the middleware application present. Also, it has information about templates and databases. Overall, this is the main file of our Django web application.

- `Urls.py`

This file handles all the URLs of our web application. This file has the lists of all the endpoints that we will have for our website.

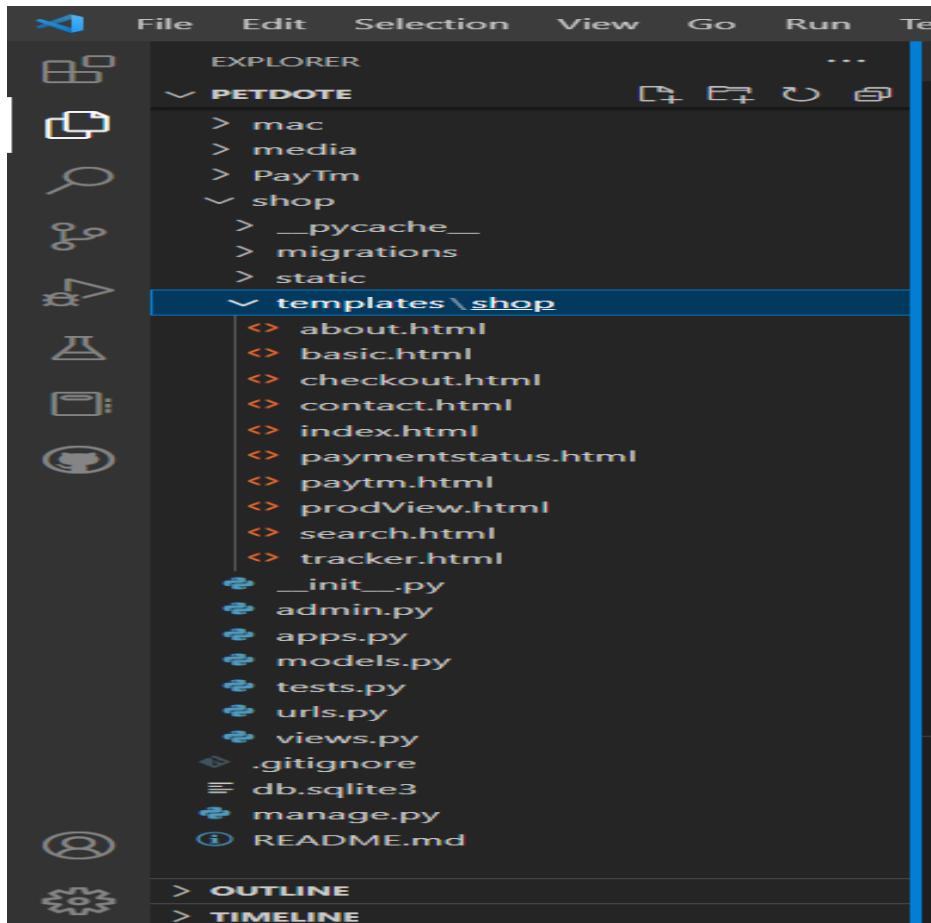
- `Wsgi.py`

This file mainly concerns with the WSGI server and is used for deploying our applications on to servers like Apache etc.

- `Asgi.py`

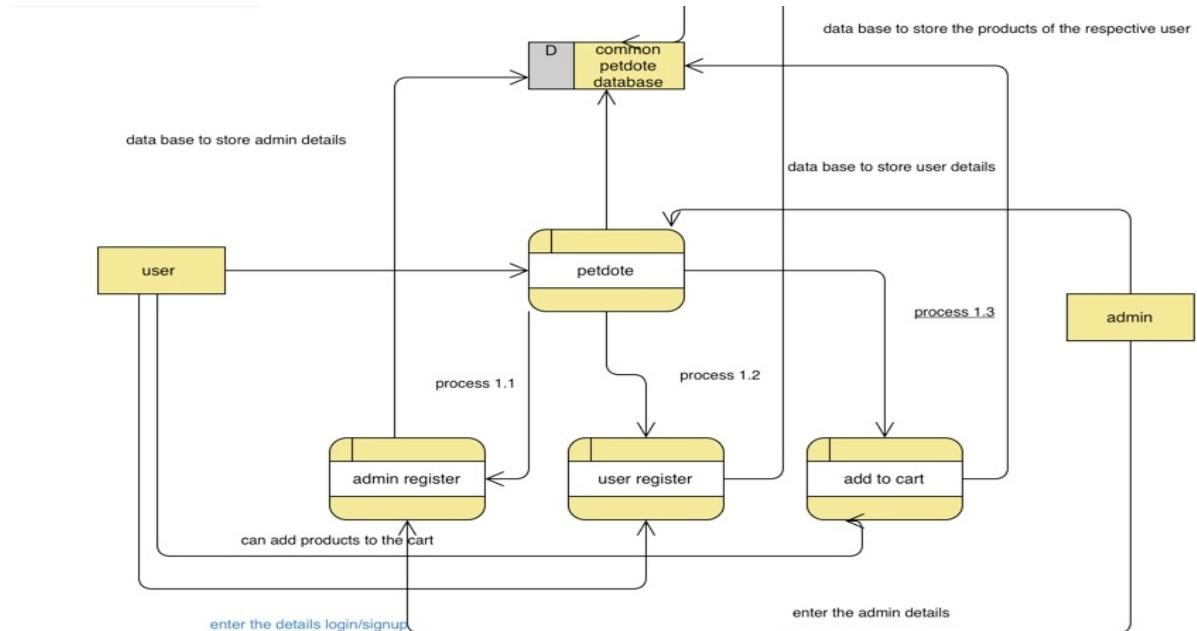
In the newer versions of Django, you will also find a file named as `asgi.py` apart from `wsgi.py`. ASGI can be considered as a succeeded interface to the WSGI. ASGI, short for Asynchronous Server Gateway interface

Templates Files:

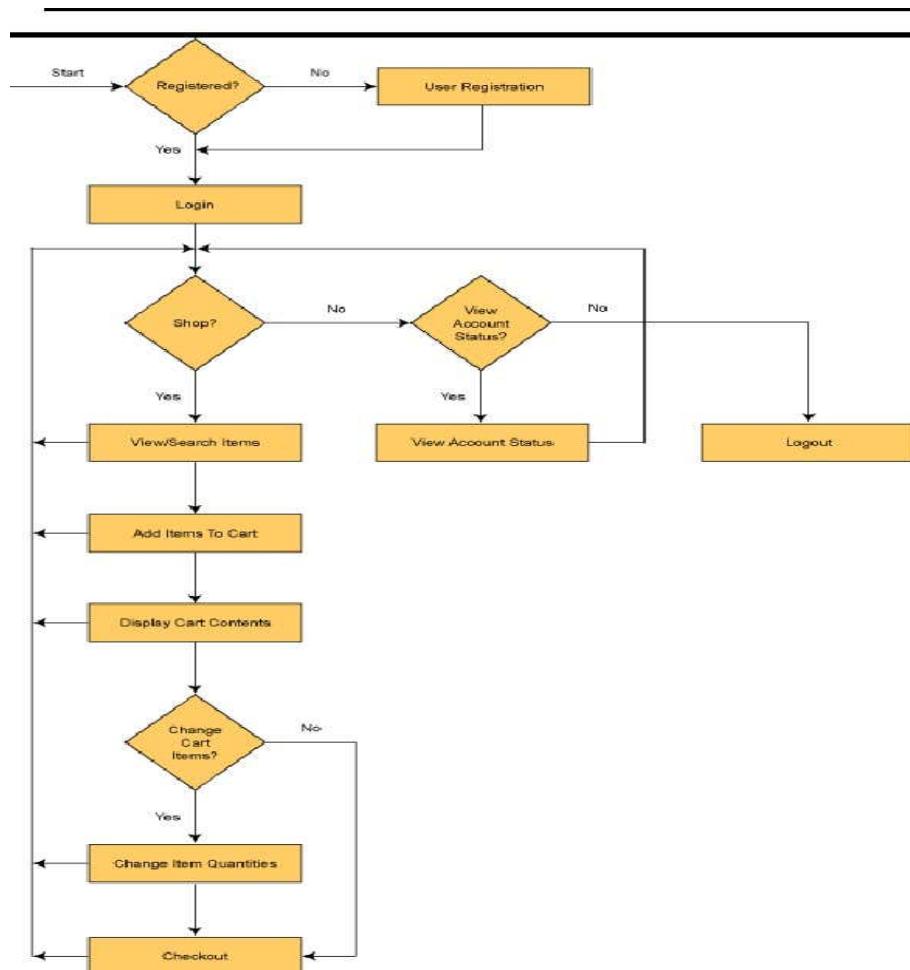


Templates Folder contains all the HTML files for the project.

Data Flow Diagrams:

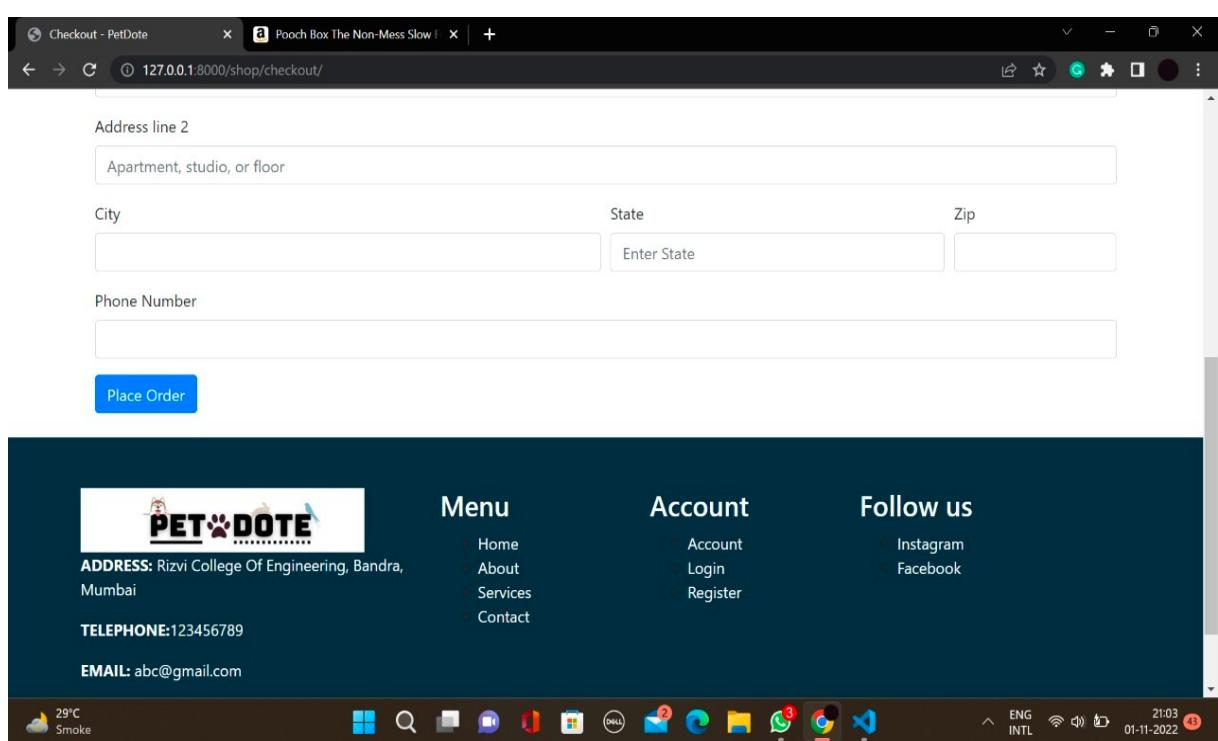
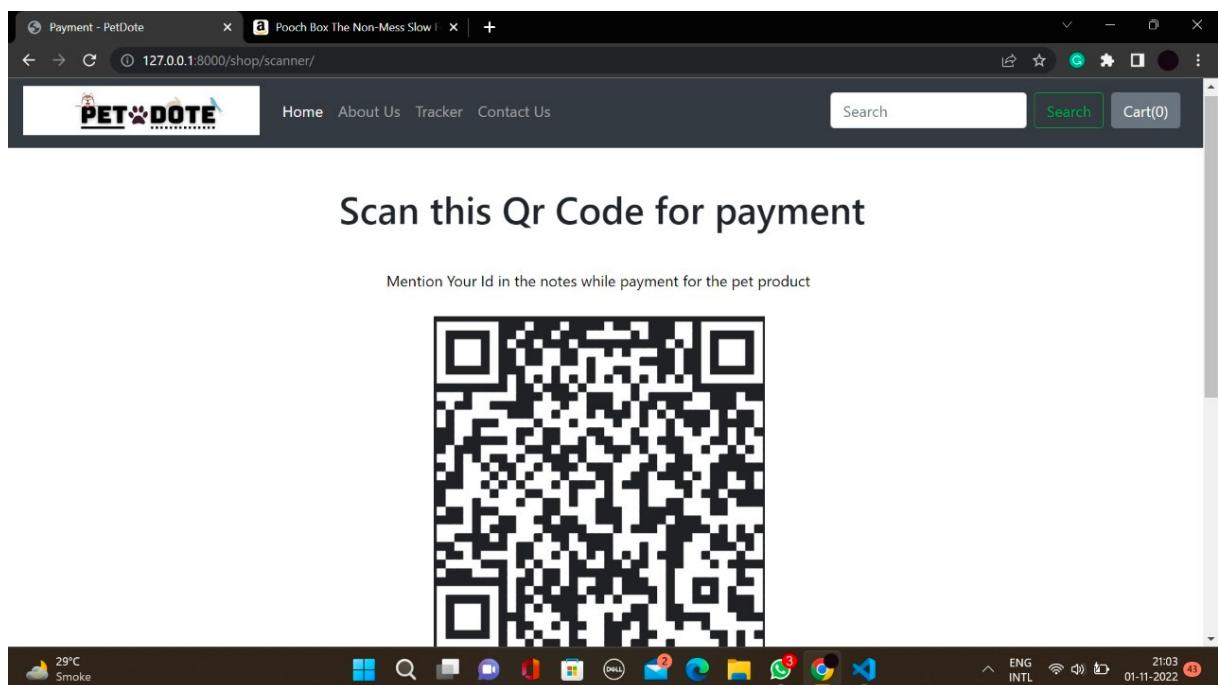


Flowchart:



Chapter 4

Results and Discussion



Checkout - PetDate

Pooch Box The Non-Mess Slow | +

127.0.0.1:8000/shop/checkout/



Home About Us Tracker Contact Us

Search Cart(2)

Step 1 - My PetDate Express Checkout - Review Your Cart Items

dog tag	1
Foxtail Millet	1

Your Cart Total Is Rs. 990. Enter your details below & place your order. Thanks for using PetDate!

The screenshot shows a web browser window with the following details:

- Header:** The title bar displays "PetDote Tracker" and "Pooch Box The Non-Mess Slow". The address bar shows the URL "127.0.0.1:8000/shop/tracker/".
- Page Content:**
 - PetDote Logo:** A logo featuring a paw print and the word "PET DOTE" in a stylized font.
 - Navigation Bar:** Includes links for "Home", "About Us", "Tracker", and "Contact Us".
 - Search Function:** A search bar with a placeholder "Search" and a green "Search" button.
 - Cart:** A "Cart(0)" button.
- Section 1:** A large heading "Enter your Order Id and Email address to track your order". Below it are two input fields: "Order Id" and "Email", each with a placeholder "Order Id" or "Email". A blue "Track Order" button is positioned between them.
- Section 2:** A heading "Your Order Status". Below it is a message: "Enter your order Id and Email and click Track Order to find details about your order!"
- Section 3:** A heading "Your Order Details".
- Footer:** A dark footer bar with the PetDote logo, navigation links for "Menu" (with "Home" and "Account" sub-links), "Follow us" (with links to Instagram and YouTube), and system status icons (weather, battery, signal, date/time).

Contact Us - PetDote

Pooch Box The Non-Mess Slow | +

127.0.0.1:8000/shop/contact/

PET DOTE

Home About Us Tracker Contact Us

Search Search Cart(0)

Name
Enter Your Name

Email
Enter Your Email

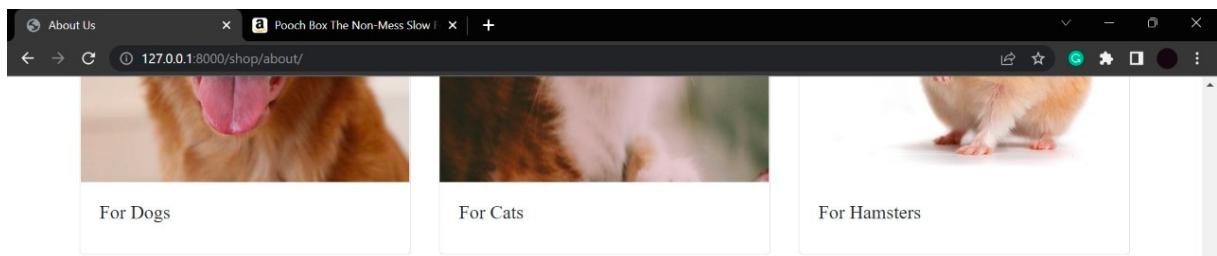
Phone
Enter Your Phone Number

How May We Help You?

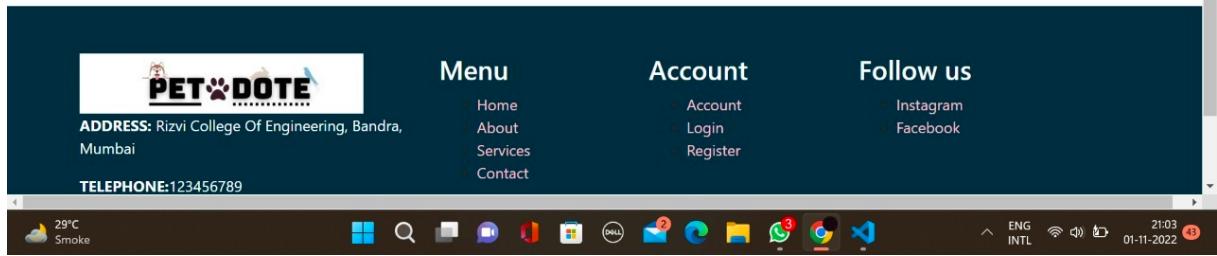
Submit

29°C Smoke

ENG INTL 21:03 01-11-2022



And Many More....



A screenshot of a web browser displaying the 'About Us' page of the PetDote website. The page has a red header with the title 'About us' and a sub-section 'PetDote - All about Pets!'. Below this, there is a text paragraph: 'A team of Animal lovers have created a website dedicated to all the lovely pets!' followed by three images of pets: a brown dog, an orange cat, and a hamster.

Chapter 5

Conclusions

The project entitled PETDOTE system was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for purchasing products from a pet shop. This project enabled me gain valuable information and practical knowledge on several topics like designing web pages using html & CSS, usage of responsive templates, designing of full stack Django application, and management of database using SQLite 3. The entire system is secured. Also, the project helped me understanding about the development phases of a project and software development life cycle. I learned how to test different features of a project. This project has given me great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications. However, it was very challenging learning and developing an application using a new technology..

Chapter 6

References

- https://www.researchgate.net/publication/325659182_An_Adaptive_ECommerce_Application_using_Web_Framework_Technology_and_Machine_Learning
- https://r.search.yahoo.com/_ylt=AwrwBpVb5mFjkJsA2gnnHgx.;_ylu=Y29sbwMEcG9zAzEEdnRpZAMEc2VjA3Ny/RV=2/RE=1667389147/RO=10/RU=https%3a%2f%2fonline.visual-paradigm.com%2f/RK=2/RS=Fbes.qkdZrACX7P_Jx93xooZmzU-
- https://r.search.yahoo.com/_ylt=AwrxhWib7WFjNlcApAHnHgx.;_ylu=Y29sbwMEcG9zAzEEdnRpZAMEc2VjA3Ny/RV=2/RE=1667391004/RO=10/RU=https%3a%2f%2fen.wikipedia.org%2fwiki%2fPets.com/RK=2/RS=zKQ3u0GvDWupRGq_VBQrHZSSw9M-

Chapter 7

Acknowledgements

I am profoundly grateful to Prof. SHIBURAJ PAPPU for his expert guidance and continuous encouragement throughout to see that this project rights its target.

I would like to express deepest appreciation towards Dr. Varsha Shah, Principal RCOE, Mumbai and Prof. Shiburaj Pappu HOD Computer Department whose invaluable guidance supported me in this project.

At last I must express my sincere heartfelt gratitude to all the staff members of Computer Engineering Department who helped us directly or indirectly during this course of work.

Tanya Mishra
Prayag Mayekar
Sejal Thatera
Ansh Tiwari

