PROJECT REPORT ON

WAGGY-THE PETSHOP E-COMMERCE WEBSITE

Submitted in the Partial Fulfillment of the Requirements

for the Degree of

BACHELOR OF TECHNOLOGY

in CSE* SEC-B

by

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Under the Supervision

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Submitted to

Department of CSE

School of Engineering & Computer Science

JAIN DEEMED-TO-BE UNIVERSITY

Candidates' Declaration

Thereby declare that the work presented in this project titled**, WAGGY-PET SHOP E-COMMERCE APPLICATION,** submitted by us in the partial fulfilment of the requirement of the award of degree of Bachelor of Technology (B.Tech) submitted in department of Computer science engineering, faculty of engineering and technology, JAIN (Deemed-to-be-University).

Date: 21th Mar, 2025

NEERAV BABEL (23BTRCT088)

CERTIFICATE

This is to certify that the project report titled “WAGGY-PET SHOP E-COMMERCE APPLICATION " has been carried out by Neerav Babel(23BTRCT088) under the supervision of Ms. Komal Mishra at JAIN (Deemed-to-be University). The report is submitted in partial fulfilment of the requirements for the Department of Computer Science & Engineering. The research conducted in this project adheres to the ethical guidelines of academic integrity and professional standards.

NEERAV BABEL (23BTRCT088)

Abstract

The Pet Shop Application is a full-stack e-commerce platform built using Flask as the backend framework and MongoDB as the database. This application is designed to simplify the purchase and sale of pet-related products, offering a secure, user-friendly, and efficient online shopping experience.

The system provides essential e-commerce functionalities, including user authentication, product management, shopping cart handling, and order tracking. It features a responsive user interface developed with HTML, CSS, and JavaScript, ensuring accessibility across different devices. To enhance user convenience, the application supports multiple payment methods, including Cash on Delivery (COD), Credit/Debit Card payments, and UPI transactions.

Key Features:

User Authentication & Security:

Secure user registration and login using bcrypt password hashing.

Session management ensures secure user state persistence. CSRF protection to prevent unauthorized access and attacks.

Product Management & Shopping Experience:

Dynamic product listing, where products are fetched from MongoDB in real-time.

Category-based filtering and search functionality for easy product discovery.

Shopping cart management, allowing users to add, remove, and update items dynamically.

Order Processing & Payment Integration:

Checkout functionality with multiple payment options (Cash, Card, UPI).

Order tracking system, allowing users to view order history and monitor status updates.

Admin dashboard to manage products, orders, and customer accounts.

Technology Stack:

Backend: Flask (Python)

Database: MongoDB (NoSQL)

Frontend: HTML, CSS, JavaScript

Security: bcrypt for password hashing, CSRF protection

Payment Integration: Secure third-party payment gateways

Future Enhancements & Scalability:

The application is designed to be scalable and adaptable, with potential improvements such as:

Product Reviews & Ratings – Allow users to rate and review products.

Wishlist Functionality – Enable users to save products for future purchases.

Email Notifications – Automated order confirmation and shipping updates.

Advanced Admin Analytics – Generate sales reports, customer insights, and inventory tracking.

Potential Applications:

Beyond pet products, the system can be adapted for:

Pet Service Bookings – Grooming, veterinary appointments, pet sitting.

Other E-Commerce Domains – Electronics, fashion, home essentials, and more.

Pet Community Features – Forums, blogs, pet adoption listings.

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