# Enchanted Wings: Marvels of Butterfly Species

## 1. Introduction

Team ID: LTVIP2025TMID44685

Team Size: 4

Team Leader: Bhavani Putti

Team Members:

- Chollangi Bharath Sai – Research and Documentation

- Bhavana Tamarapu – Frontend Developer

- Chakravartula Ananta Satish – Backend Developer

## 2. Project Overview

Purpose:  
“Enchanted Wings” is a nature-based web project focused on the collection, classification, and visualization of various butterfly species found in different regions. The goal is to promote biodiversity awareness through an interactive, educational platform where users can explore the fascinating world of butterflies.

Features:

- Butterfly species database with images and scientific details

- Upload feature for adding new species with location tagging

- Search and filter options by region, color, or species

- Educational facts and conservation tips

- Interactive and responsive web UI

## 3. Architecture

Frontend:  
- Built using HTML, CSS, JavaScript (or optionally React.js)  
- Butterfly gallery UI with dynamic search

Backend:  
- Python (Flask or Django) used for handling form data and serving the database

Database:  
- MongoDB or SQLite for storing butterfly information (name, habitat, image URL, etc.)

## 4. Setup Instructions

Prerequisites:  
- Python 3.x  
- pip  
- MongoDB (optional for advanced version)

Installation:

git clone https://github.com/your-repo/enchanted-wings.git  
cd enchanted-wings  
pip install -r requirements.txt

## 5. Folder Structure

- /frontend: All static files (HTML, CSS, JS)

- /backend: Python/Flask or Django app

- /database: Models and sample data

- /uploads: Image storage (if applicable)

## 6. Running the Application

Frontend:  
Open index.html in a browser (or use npm start if using React).

Backend (Python Flask Example):  
python app.py

## 7. UI Features

- Butterfly grid view

- Filter by region or category

- "Add Butterfly" upload form

- Light/dark mode toggle (optional)

## 8. Future Enhancements

- AI-based butterfly identification from uploaded images

- Mobile app version

- Community contribution and review section

- Offline butterfly guide PDF download