

Ideation phase

Enchanted wings & idea prioritization template

Date: 27 June 2025

Team ID : LTVIP2025TMID33796

Project Name: Enchanted Wings: Marvels of Butterfly Species

Maximum Marks: 4 Marks

Overview

Enchanted Wings uses transfer learning to classify 6499 images across 75 butterfly species, supporting biodiversity monitoring, ecological research, and citizen science through efficient species identification.

Step-1: Team, Collaboration, Problem

- **Team:** Data scientists, ecologists, app developers.
- **Collaboration:** Virtual (Zoom, Miro) and in-person workshops.
- **Problem:** Build an accurate, accessible butterfly classification system for conservation, research, and public engagement.

Step-2: Idea Generation & Grouping

- **Session:** 30-minute brainstorming using Miro or sticky notes, encouraging creative ideas.
- **Ideas:**
 - Mobile app for real-time identification with educational content.
 - Geolocation for species distribution mapping.
 - Model optimization for low-resource devices.

- Augmented reality (AR) for species info on camera feeds.
- Environmental data integration for ecological insights.
- Citizen science platform for image uploads.
- **Groups:**
 - **Conservation:** Geolocation, environmental data.
 - **Technology:** Model optimization, AR.
 - **Engagement:** Mobile app, citizen science platform.

Step-3: Prioritization

- **Criteria:** Impact, feasibility, scalability.
- **Top Ideas:**
 - **Mobile App:** High impact (engages users), feasible (uses existing tech), scalable (global reach).
 - **Geolocation:** High impact (biodiversity monitoring), feasible (GPS-based), scalable (global datasets).
 - **Model Optimization:** High impact (field use), feasible (model compression), scalable (broad access).
- **Visual Aids:**
 - Priority Matrix (Impact vs. Feasibility grid).
 - System Flow Diagram (image to classification).
 - Data Contribution Chart (uploads to global database).