Ideation phase

Enchanted wings & idea prioritization template

Date: 27 June 2025
Team ID : LTVIP2025TMID45523
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).