# **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).