

# Ideation Phase

## Brainstorm & Idea Prioritization

Date:	18 June 2025
Team ID:	LTVIP2025TMID36354
Project Name:	Enchanted Wings: Marvels of Butterfly Species
Maximum Marks:	4 Marks

### Ideation Phase

Brainstorming encourages creative and open problem-solving by allowing team members to explore a wide range of ideas.

This session supports selecting and refining ideas that best fit the chosen problem statement related to butterfly species classification.

### Step-1: Team Gathering, Collaboration and Selecting the Problem Statement

The team gathered to address challenges in butterfly identification in the field.

After empathy mapping and customer journey analysis, the selected problem statement is:

**How can we help users (students, researchers) identify butterfly species easily and accurately using AI-powered image classification?**

Template



### Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

⌚ 10 minutes to prepare  
⌚ 1 hour to collaborate  
👤 2-8 people recommended

**Before you collaborate**  
A little bit of preparation goes a long way with this session. Here's what you need to do to get going.  
⌚ 10 minutes

**Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**Learn how to use the facilitation tools**  
Use the facilitation superpowers to run a happy and productive session.  
[Open article](#)

**Define your problem statement**  
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.  
⌚ 5 minutes

**PROBLEM**  
Due to the ecological importance and aesthetic appeal of butterflies, scientifically identifying them poses a challenge for experts, hobbyists, and enthusiasts due to their vast diversity and subtle differences. Most identification is a time-consuming process, often requiring expertise when dealing with hundreds of species. Enchanted Wings: Marvels of Butterfly Species is a mobile application designed for helping users identify butterflies using AI-powered image classification. It uses transfer learning techniques (using VGG16) to build a reliable image classifier that can identify over 100 different butterfly species from images with high accuracy. The species is identified through a user friendly web application that provides detailed information such as predictions, ordering, accessibility, biodiversity tracking, and more.

Would you like a shorter version for mobile or a more formal one for desk advocacy?

Need some inspiration?  
See a finished version of this template and start your work.  
[Open example](#)

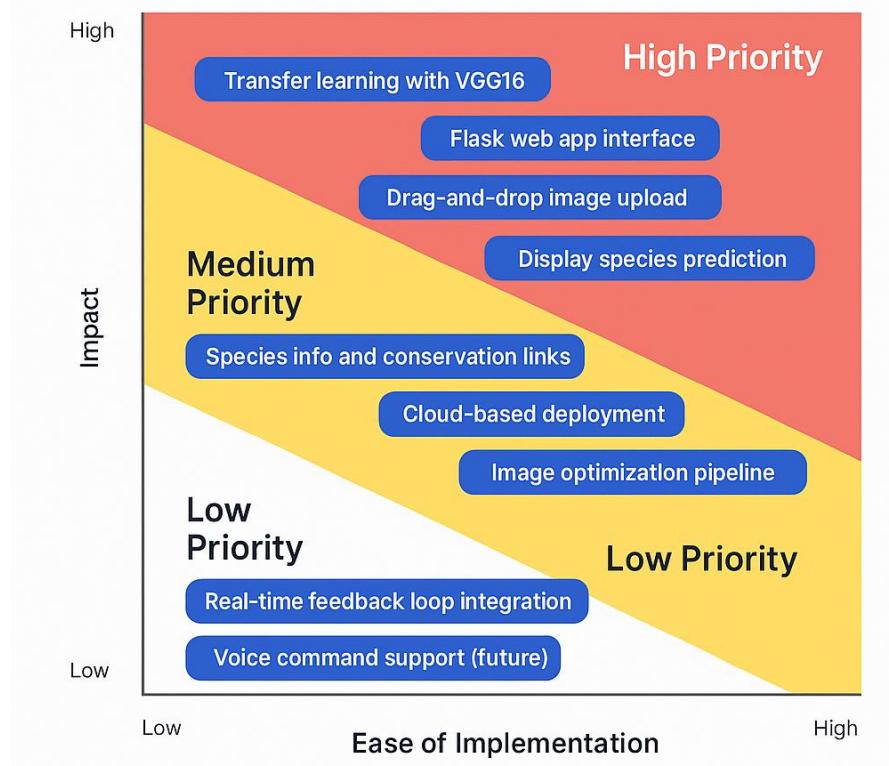
## 💡 Step-2: Brainstorming, Idea Listing and Grouping

Below is a list of ideas generated during the brainstorming session:

- Use transfer learning with VGG16 to classify butterfly images
- Build a simple Flask-based web application
- Enable drag-and-drop image uploads
- Display predicted species with image preview
- Add links to species details (e.g., habitat, conservation)
- Include a feedback option to improve future predictions
- Optimize image preprocessing for fast model loading
- Deploy app to a cloud platform for access on any device

## ⌚ Step-3: Idea Prioritization

### Brainstorming & Idea Prioritization – Enchanted Wings: Butterfly Classification



Ideas were evaluated based on feasibility, impact, and ease of implementation:

### 🔴 High Priority

- Transfer learning with VGG16
- Flask web app interface
- Drag-and-drop image upload
- Display species prediction

### **Medium Priority**

- Species info and conservation links
- Cloud-based deployment
- Image optimization pipeline

### **Low Priority**

- Real-time feedback loop integration
- Voice command support (future)