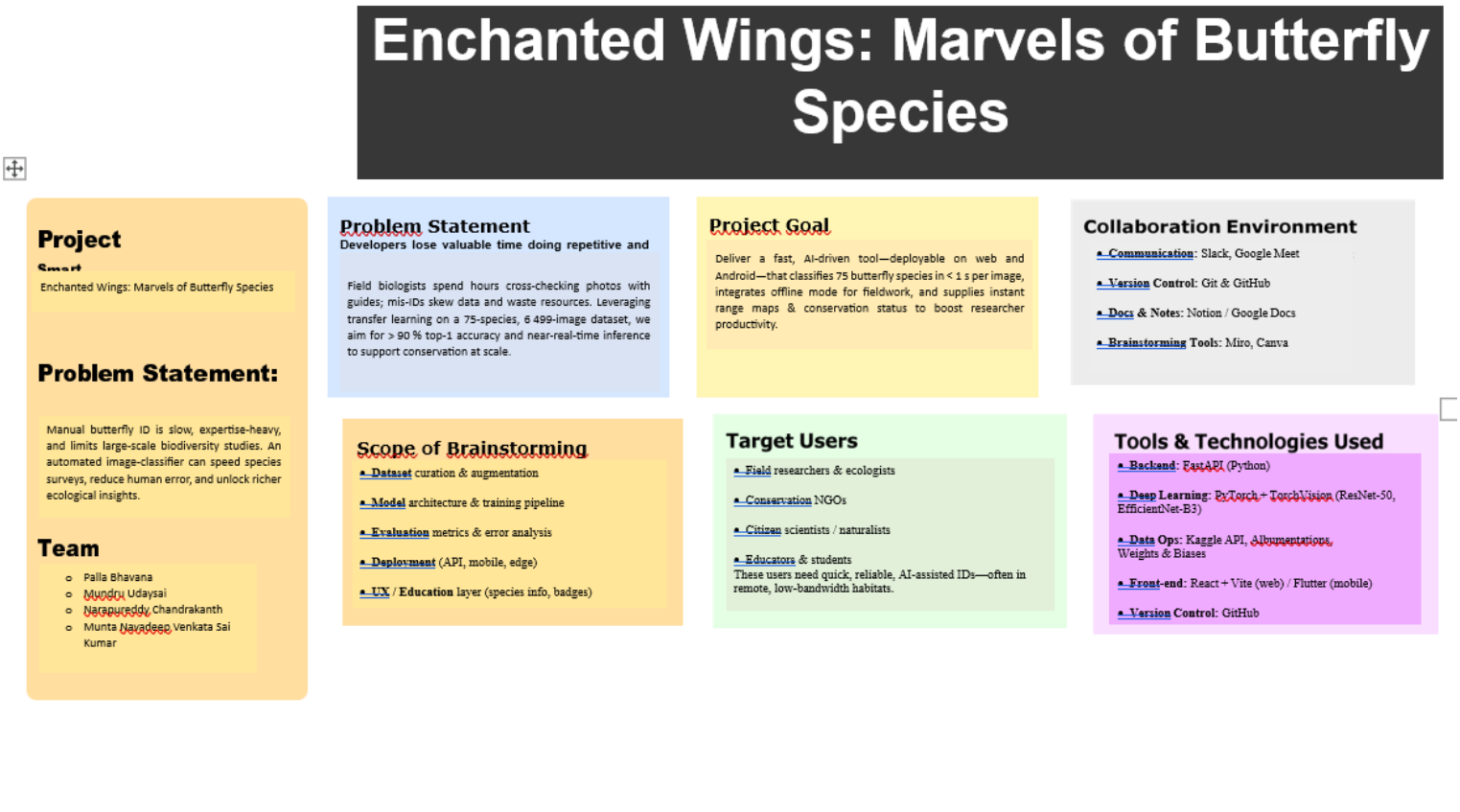
Ideation Phase
Brainstorm & Idea Prioritization Template

Date	14 June 2025
Team ID	LTVIP2025TMID32471
Project Name	Enchanted Wings: Marvels of Butterfly Species
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions .



Brainstorm, Idea Listing and Grouping

Problem Statement:

Manual butterfly ID is slow, expertise-heavy, and limits large-scale biodiversity studies. An automated image-classifier can speed species surveys, reduce human error, and unlock richer ecological insights.

Objective of Brainstorming:

To explore how AI can assist or automate different phases of SDLC using local models (like Granite via llama-cpp-python), thereby making the process faster, smarter, and more **efficient.**

How Might We Questions

Identify innovative ways to use AI to solve SDLC challenges

Palla Bhavana

How might we use transfer learning to reduce training time for our model?

How might we monitor model performance across species during training?

How might we automate model versioning and rollback if accuracy drops?

How might we make the classifier lightweight for mobile or offline field use?

Mundru Uday Sai

How might we use AI to automatically label butterfly species from image metadata?

How might we generate synthetic butterfly images to balance rare classes?

How might we detect poor-quality images before model training?

How might we automate data splitting (train, val, test) based on species and image quality?

Narapureddy Chandrakanth Kumar

How might we design a simple UI for non-experts to upload and identify butterflies?

How might we show species info and habitat maps after prediction?

How might we help users give feedback on wrong predictions?

How might we use the feedback to improve model predictions?

Munta Navadeep Venkata Sai

How might we make this tool engaging for school students?

How might we gamify butterfly tracking for citizen science projects?

How might we encourage users to submit images from different regions?

How might we share user-submitted data with researchers securely?