

Project Design Phase
Problem – Solution Fit Template

Date	27 TH june 2025
Team ID	LTIVP2025TMID42332
Project Name	Enchanted Wings: Marvel species Butterfly project
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

Problem:

Identifying butterfly species manually is a slow, expertise-driven, and often inaccurate process. This poses a challenge for researchers, students, environmentalists, and nature enthusiasts who require quick, reliable, and accessible identification methods to support education, biodiversity tracking, and conservation efforts.

Target Audience:

- Biology/environmental science students
- School/college educators
- Field researchers, entomologists
- Butterfly park visitors
- Eco-tourism groups
- Wildlife photographers

Customer Behavior Patterns:

- Take pictures of butterflies during field trips or visits
- Use online searches or books to identify species
- Face difficulty differentiating between similar-looking species
- Often rely on expert consultation or peer forums
- Engage more with visual, app-based, or gamified learning tools

Proposed Solution:

A machine learning-powered butterfly species recognition system that allows users to upload a butterfly image and receive instant results, including:

- Species name and scientific classification
- Fun facts and ecological details
- Conservation status
- Visual references and comparison
- Optional language selection and quiz/gamified modules

Value Proposition:

- Fast and accurate butterfly identification
- User-friendly and mobile-accessible interface
- Promotes ecological learning and conservation
- Helps researchers save time and avoid misclassification
- Engages younger audiences with interactive content

Triggers and Channels for Adoption:

- Integration with school biology lab activities
- Social media campaigns (e.g., "Spot & Identify Butterflies")
- Collaboration with butterfly parks and NGOs
- QR-code-based promotion in butterfly sanctuaries
- Use in citizen science programs or nature events

Existing Situation to Improve:

Currently, identification of butterflies is fragmented, manual, and inaccessible to non-experts. By digitizing and automating the process through AI, *Enchanted Wings* bridges the gap between curiosity and conservation—making species identification simpler, faster, and smarter.