# **Model Performance Test**

**Date**: 27 June 2025  
**Team ID**: LTVIP2025TMID33796  
**Project Name**: Enchanted Wings: Marvels of Butterfly Species  
**Maximum Marks**: Not Specified

## **Model Performance Testing**

Enchanted Wings leverages transfer learning to classify 6499 images across 75 butterfly species, supporting biodiversity monitoring, ecological research, and citizen science. This template evaluates Tableau integration for visualizing classification results, species distributions, and user contributions, ensuring effective data analysis and presentation.

### **Model Performance Table**

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| **S.NO** | **PARAMETER** | **Screenshot / Values** |
| 1. | Data Rendered | Dataset: 6499 butterfly images with labels (75 species), split into training (4549), validation (975), and test (975) sets. Metadata: geolocation, timestamp, confidence scores. Rendered in Tableau as tables and geographic visualizations. |
| 2. | Data Preprocessing | Removed corrupted images, standardized formats (.jpg, .png), and normalized confidence scores. Aggregated metadata for species and location analysis. |
| 3. | Utilization of Filters | Applied filters: species name, confidence score (>0.8), region (geolocation), date (timestamp). Enabled interactive dashboard filtering. |
| 4. | Calculation Fields Used | 1. Total Images: COUNTD([Image\_ID]) - Counts total images.  2. Avg Confidence: AVG([Confidence\_Score]) - Average classification confidence.  3. Species Count: COUNTD([Species\_Name]) - Counts unique species. |
| 5. | Dashboard Design | No of Visualizations / Graphs: 4 (Bar chart: species frequency; Map: species distribution by geolocation; Pie chart: classification accuracy breakdown; Table: top 5 species by confidence). |
| 6. | Story Design | No of Visualizations / Graphs: 3 (Line chart: accuracy trend over time; Heatmap: species density by region; Card: total images classified). |