# Project Title: Enchanted Wings: Marvels of Butterfly Species

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Maximum Mark:2marks

## Project Development Phase: Model Performance Test

In this phase, the developed models are rigorously evaluated to ensure they meet the desired performance standards. This phase focuses on verifying the model's ability to generalize well on unseen data, resist overfitting, and provide consistent, reliable outputs.

## Model Performance Testing

Model performance testing involves assessing the model using different evaluation metrics and datasets. It ensures that the model is accurate, efficient, and suitable for deployment in real-world scenarios.

### Steps Involved:

* 1. Define Performance Metrics (e.g., Accuracy, Precision, Recall, F1-Score, ROC-AUC)
* 2. Select Appropriate Validation and Test Datasets
* 3. Use Train-Test Split or Cross-Validation
* 4. Evaluate Model Predictions Against Ground Truth
* 5. Identify and Analyze Errors or Anomalies
* 6. Fine-tune Hyperparameters (if necessary)
* 7. Document the Results for Comparison and Iteration