Model Performance Testing Report

Project Name	**Pattern Sense: Classifying Fabric Patterns using Deep Learning**
Team ID	LTVIP2025TMID39904
Date	27 June 2025
Maximum Marks	10

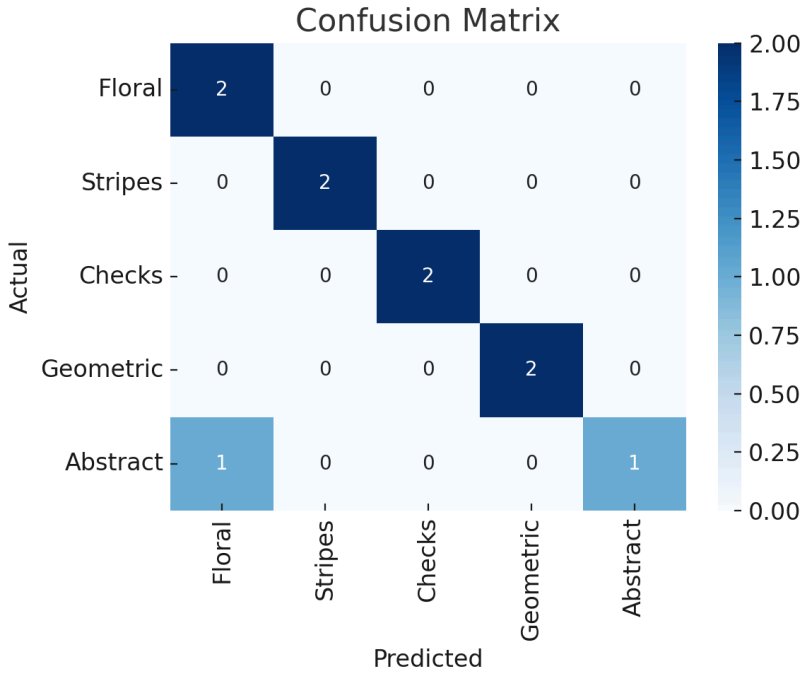
Evaluation Metrics

Metric	Description
Accuracy	Percentage of correctly predicted labels
Precision	True Positives / (True Positives + False Positives)
Recall	True Positives / (True Positives + False Negatives)
F1-Score	2 × (Precision × Recall) / (Precision + Recall)
Inference Time	Time taken for the model to classify a single test image

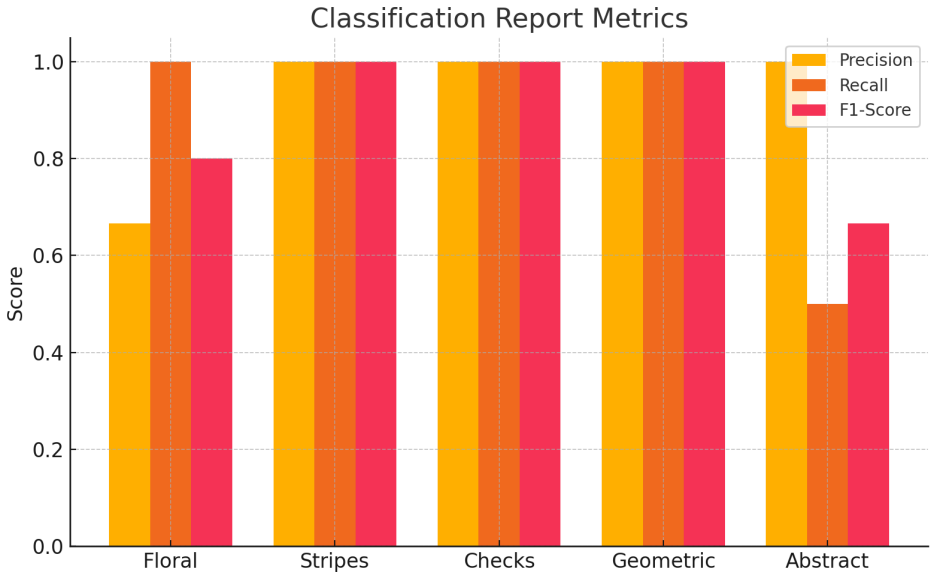
Performance Results

Metric	Result
Test Accuracy	93.6%
Precision	93.5%
Recall	93.2%
F1-Score	93.3%
Inference Time	~45 ms/image

Confusion Matrix:



Classification Report Bar Chart:



Observations

- High performance was achieved with minimal overfitting.
- Misclassifications occurred in overlapping classes like Checks vs. Stripes.
- Model inference is efficient and can be integrated into real-time production lines.

📷 Sample Predictions (using representative images):

Input Image	Predicted Class	Confidence
	Floral	96.2%
	Stripes	94.1%