

Model Development Phase Template

Date	4 July 2025
TeamID	SWTID1750180871
Project Title	Mangonet: A Vgg16-Based Neural Network For Mango Classification
Maximum Marks	6 Marks

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (Accuracy)
VGG16 + Custom Classifier	Pre-trained VGG16 as feature extractor (frozen weights), with custom dense layers for classification of 8 mango varieties. Robust to overfitting, leverages transfer learning for improved accuracy on limited data.	<ul style="list-style-type: none"> - Input size: 224×224 - Batch size: 32 - Optimizer: Adam - Loss: categorical_crossentropy - Epochs: 10 - Dense: 256 units (ReLU), Dropout 0.5, Output: 8 units (softmax) 	Training: 82.7% Validation: 80.6%