Model Optimization and Tuning Phase Template

Date	13 November 2024
Team ID	739761
Project Title	pixelprose - crafting visual stories with intelligent image captioning
Maximum Marks	10 Marks

Model Optimization and Tuning Phase

The Model Optimization and Tuning Phase involves refining neural network models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
ResNet15V2	ResNet152V2 is a deep convolutional neural network architecture known for its high accuracy in image classification tasks. It's particularly wellsuited for complex datasets with many variations in objects. For tomato plant identification, ResNet152V2 could be a good choice if you have a large and diverse dataset of tomato plant images with different growth stages, varieties, and environmental conditions. It's ability to learn intricate features from the images could lead to a highly accurate model.