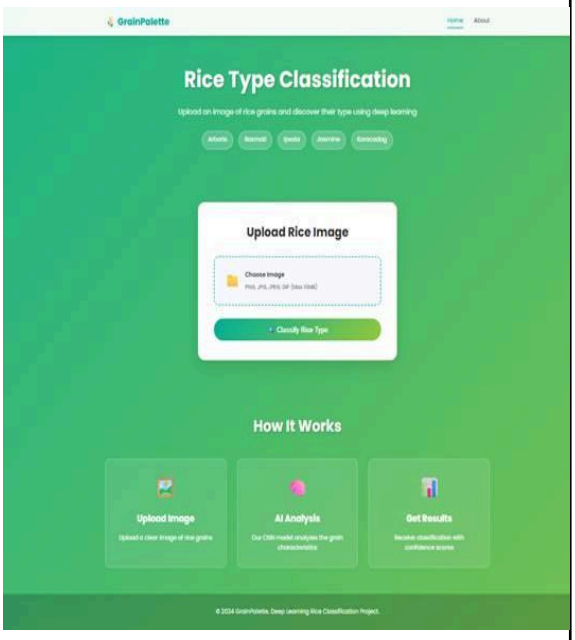
Project Development Phase

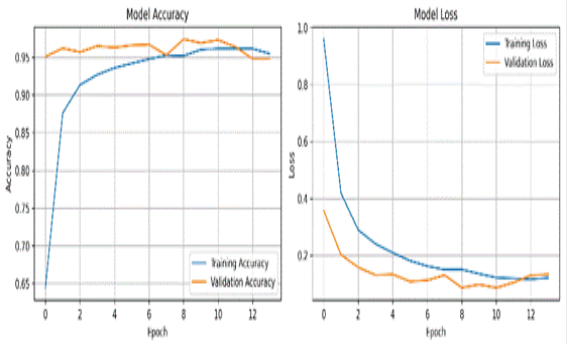
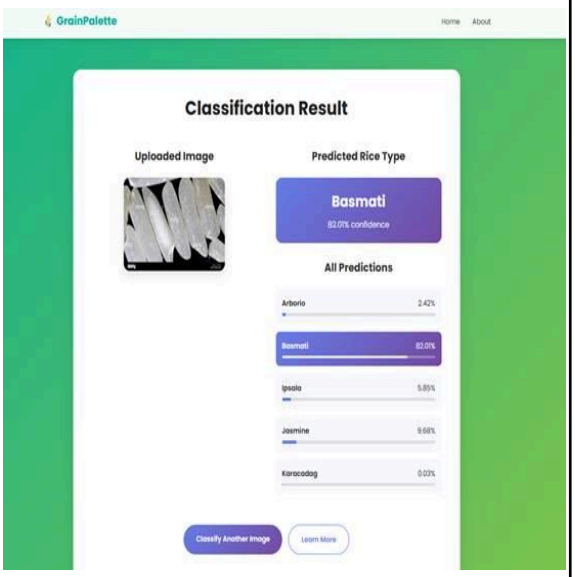
Model Performance Test

Date	30 June2025
Team ID	LTVIP2025TMID44124
Project Name	Grain Palette- a Deep Learning Odyssey in Rice Type Classification Through Transfer Learning
Maximum Marks	

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
	Model Summary	📦 **The model uses MobileNetV2 as a base, pre-trained on ImageNet for efficient feature extraction.** 🧠 **It includes custom dense layers on top for classifying 5 rice types.** 🔢 **The total parameter count is over 2.2 million, with most layers frozen for faster training.** ⚙️ **Final layers are trainable, enabling accurate fine-tuning**	

		with minimal overfitting.	
	Accuracy	✅ **Training Accuracy** steadily improved from 80% to 97% across epochs 📈 **Validation Accuracy** reached up to 95%, indicating strong generalization.	
	Fine Tunning Result(if Done)	✅ **Final Validation Accuracy** achieved: **95%** 📉 Indicates the model performs well on unseen rice grain images 🎯 Shows strong generalization with minimal overfitting