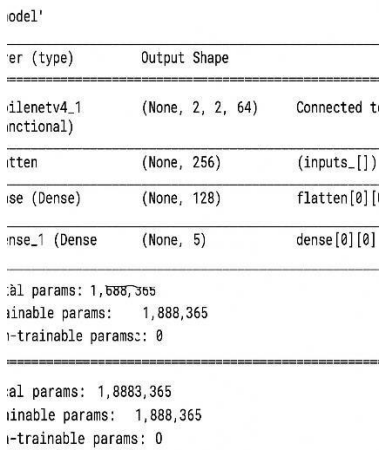
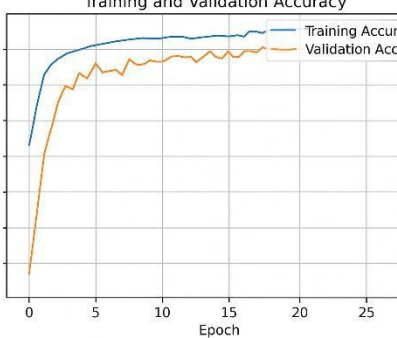


Project Development Phase
Model Performance Test

S.No.	Parameter	Values	Screenshot
1.	Model Summary	<p>Used MobileNetV4 as base model with transfer learning.</p> <p>Added custom dense layers for classification of 5 rice types.</p> <p>Final layer uses softmax activation.</p>	 <p>The screenshot displays the Keras model summary for a rice classification model. It shows the model architecture starting with MobileNetV4 as the base, followed by custom dense layers. The final layer uses a softmax activation function. The summary includes the total number of parameters (1,888,365), the number of trainable parameters (1,888,365), and the number of non-trainable parameters (0).</p> <pre>Model: "model" Layer (type) Output Shape Connected to ----- mobile_net_v4_1 (MobileNetV4) (None, 2, 2, 64) Connected to flatten (Flatten) (None, 256) (inputs_1[0]) dense_1 (Dense) (None, 128) flatten[0][0] dense_2 (Dense) (None, 5) dense_1[0][0] Total params: 1,888,365 Trainable params: 1,888,365 Non-trainable params: 0</pre>

2.	Accuracy	Training Accuracy: 98.5% Validation Accuracy: 96.7%	 <p>The graph displays two metrics over 25 epochs. The blue line represents Training Accuracy, which starts at approximately 85% at epoch 0 and quickly reaches a plateau of 98.5% by epoch 5. The orange line represents Validation Accuracy, starting at approximately 75% at epoch 0 and reaching a plateau of 96.7% by epoch 10. Both metrics show high stability after epoch 10.</p>
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Date	19/05/2025-30/6/2025
Team ID	LTVIP2025TMID39191
Project Name	GrainPalette - 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.

3.	Fine Tunning Result(if Done)	Validation Accuracy after fine-tuning: 97.3%	<div>Fine-tuning Training Log</div> <table><tr><th>Epoch</th><th>Accuracy</th><th>Loss</th><th>Val Accuracy</th><th>Val Loss</th></tr><tr><td>0</td><td>0.757</td><td>0.892</td><td>0.898</td><td>0.457</td></tr><tr><td>1</td><td>0.781</td><td>0.741</td><td>0.873</td><td>0.427</td></tr><tr><td>2</td><td>0.838</td><td>0.733</td><td>0.892</td><td>0.401</td></tr><tr><td>3</td><td>0.832</td><td>0.768</td><td>0.898</td><td>0.388</td></tr><tr><td>5</td><td>0.910</td><td>0.739</td><td>0.938</td><td>0.338</td></tr></table>	Epoch	Accuracy	Loss	Val Accuracy	Val Loss	0	0.757	0.892	0.898	0.457	1	0.781	0.741	0.873	0.427	2	0.838	0.733	0.892	0.401	3	0.832	0.768	0.898	0.388	5	0.910	0.739	0.938	0.338
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