

## Project Development Phase Model Performance Test

Date	23 June 2025
Team ID	LTVIP2025TMID59524
Project Name	Pollen's Profiling: Automated Classification of Pollen Grains
Maximum Marks	10 Marks

### Model Performance Testing:

S.No.	Parameter	Values	Screenshot
1.	Model Summary	<b>Transfer Learning with VGG16</b> <ul style="list-style-type: none"> <li>Input Size: 224x224</li> <li>Pre-trained on ImageNet</li> <li>Frozen base layers, added custom Dense layers</li> <li>Optimizer: Adam</li> <li>Loss: Categorical Crossentropy</li> </ul>	
2.	Accuracy	<b>Training Accuracy: ~84.7%</b> (from last epochs of graph) <b>Validation Accuracy: ~84.3%</b> (based on final values, not 94.3%)	
3.	Fine Tunning Result	After unfreezing and fine-tuning: <b>Validation Accuracy: ~85.8%–86.0%</b> (approximate peak seen in accuracy graph)	