**Project Development Phase**

**Model Performance Test**

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| Date | 21 June 2025 |
| Team ID | LTVIP2025TMID40098 |
| Project Name | Pollen's Profiling: Automated Classification of Pollen Grains |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Model Summary | T**ransfer Learning with VGG16**  • Input Size: 224x224  • Pre-trained on ImageNet  • Frozen base layers, added custom Dense layers  • Optimizer: Adam  • Loss: Categorical Crossentropy |  |
|  | Accuracy | **Training Accuracy**: ~**86.7%** (from last epochs of graph)  **Validation Accuracy**: ~**84.3%** (based on final values, not 94.3%) |  |
| 3. | Fine Tunning Result( if Done) | After unfreezing and fine-tuning: **Validation Accuracy**: ~**85.8%–86.0%** (approximate peak seen in accuracy graph) |  |