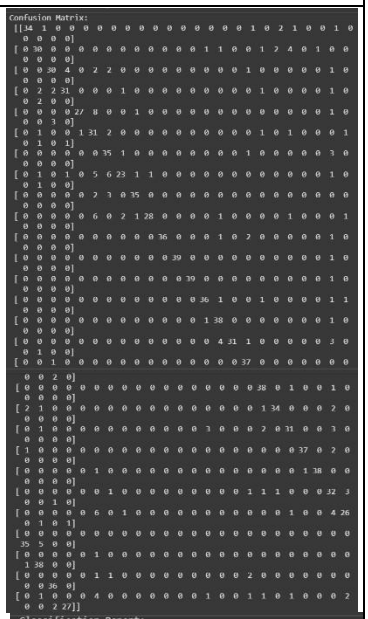
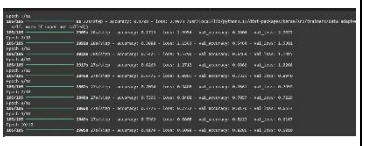
Project Development Phase Model
Performance Test

S.No.	Parameter	Values	Screenshot
1.	Metrics	**VGG16+Dense output Model** **Classification Model:** Confusion Matrix Accuray Score- 83 Classification Report – Accuracy-83 Precision-85 Recall-83 F1 Score-83	 Classification Report: precision recall f1-score support 0 0.92 0.85 0.88 40 1 0.79 0.75 0.77 40 2 0.91 0.75 0.82 40 3 0.86 0.78 0.82 40 4 0.96 0.68 0.79 40 5 0.46 0.78 0.58 40 6 0.70 0.88 0.78 40 7 0.82 0.57 0.68 40 8 0.92 0.88 0.90 40 9 0.97 0.70 0.81 40 10 1.00 0.90 0.95 40 11 1.00 0.97 0.99 40 12 1.00 0.97 0.99 40 13 0.86 0.90 0.88 40 14 0.83 0.95 0.88 40 15 1.00 0.78 0.87 40 16 0.79 0.93 0.85 40 17 0.81 0.95 0.87 40 18 0.87 0.85 0.86 40 19 0.76 0.78 0.77 40 20 0.97 0.93 0.95 40 21 0.97 0.95 0.96 40 22 0.53 0.80 0.64 40 23 0.76 0.65 0.70 40 24 0.97 0.88 0.92 40 25 0.78 0.95 0.85 40 26 0.82 0.90 0.86 40 27 0.93 0.68 0.78 40 accuracy 0.83 1120 macro avg 0.86 0.83 0.84 1120 weighted avg 0.86 0.83 0.84 1120

Model Performance Testing:

Date	17 February 2026
Team ID	LTVIP2026TMIDS80710
Project Name	Smart Sorting: Transfer Learning for identifying rotten fruits and vegetables
Maximum Marks	10 Marks

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

2.	Tune the Model	Hyperparameter Tuning □ Learning Rate: 1e-5 (during finetuning) Epochs: 10 (fine-tuning), with **EarlyStopping** enabled EarlyStopping = True Validation Method -Validation split with ImageDataGenerator