**Project Development Phase**

**Model Performance Test**

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| Date | 25 June 2025 |
| Team ID | LTVIP2025TMID35341 |
| Project Name | Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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

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| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Metrics | **Classification Model:**  • **Confusion Matrix:** Included below  • **Accuracy Score:** 89.6%  • **Classification Report:**  – Precision: 0.90  – Recall: 0.89  – F1 Score: 0.89  – Support: 28 classes (Fresh/Rotten across fruits and vegetables) |  |
|  | Tune the Model | • **Hyperparameter Tuning:**  – Learning Rate: Tuned to 1e-4  – Batch Size: 32  – Optimizer: Adam  • **Validation Method:**  – 80:20 train-validation split  – Used EarlyStopping and ReduceLROnPlateau callbacks during training |  |