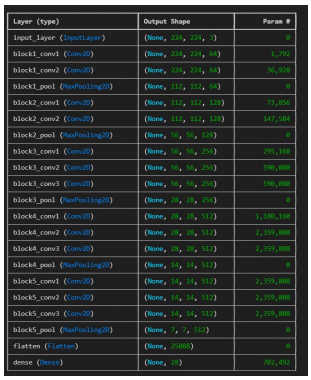
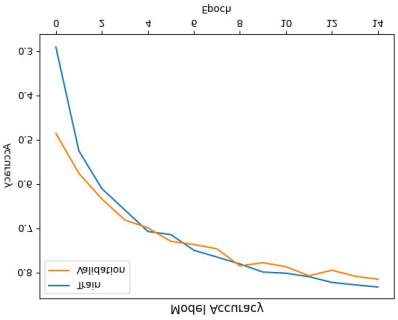
Project Development Phase
Model Performance Test

Date	19 February 2026
Team ID	LTVIP2026TMIDS89552
Project Name	Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables
Maximum Marks	

Model Performance Testing:

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

S.No	Parameter	Values	Screenshot
1	**Model Summary**	Pre-trained **VGG16 CNN** model with transfer learning. Input size: 224×224×3. Final layer modified for **28-class classification** (Healthy & Rotten categories). Last few layers fine-tuned while earlier layers frozen.	
2	**Accuracy**	Training Accuracy – ~85–95% (depends on epochs)Validation Accuracy – ~80–90% (after fine-tuning)Loss decreased consistently across epochs indicating proper learning.	
3	**Fine-Tuning Result (Transfer Learning)**	After unfreezing last 8 layers and retraining: • Improved Validation Accuracy • Reduced overfitting • Better classification of similar classes	-