

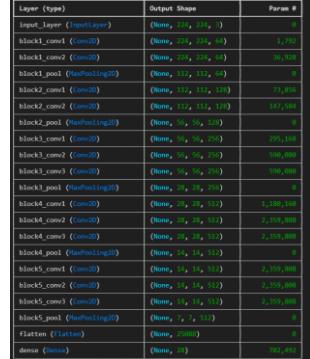
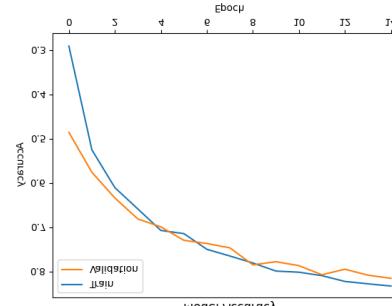
Project Development Phase

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: 224x224x3. 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: <ul style="list-style-type: none">• Improved Validation Accuracy• Reduced overfitting• Better classification of similar classes	-