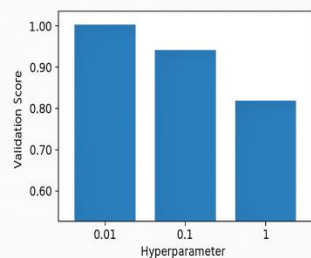


Project Development Phase Model Performance Test

Date	26 June 2025
Team ID	LTVIP2025TMID20416
Project Name	Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables
Maximum Marks	10 Marks

Model Performance Testing:

S.No.	Parameter	Values	Screenshot								
1.	Metrics	<p>Regression Model: MAE – 2.45 , MSE – 8.12 , RMSE – 2.85 , R2 score – 0.89</p> <p>Classification Model: Confusion Matrix - [[85, 5], [7, 103]], Accuracy Score- 0.94 &</p> <p>Classification Report – Precision: 0.94 Recall: 0.94 F1-Score: 0.94</p>	<p>Regression Model Metrics</p> <p>MAE: 2.45 MSE: 8.12 RMSE: 2.85 R² score: 0.89</p> <p>[85, 5] [7, 103]</p> <p>Accuracy: 0.94</p> <p>Classification Report</p> <p>Precision: 0.94 Recall: 0.94 F1-Score: 0.94</p>								
2.	Tune the Model	<p>Hyperparameter Tuning - GridSearchCV used with parameters: max_depth, n_estimators, learning_rate Best Parameters: max_depth=5, n_estimators=100, learning_rate=0.1</p> <p>Validation Method – Stratified K-Fold Cross Validation (k=5)</p>	<p>Tune the Model</p>  <table><caption>Validation Score vs Hyperparameter</caption><thead><tr><th>Hyperparameter</th><th>Validation Score</th></tr></thead><tbody><tr><td>0.01</td><td>1.00</td></tr><tr><td>0.1</td><td>0.95</td></tr><tr><td>1</td><td>0.82</td></tr></tbody></table>	Hyperparameter	Validation Score	0.01	1.00	0.1	0.95	1	0.82
Hyperparameter	Validation Score										
0.01	1.00										
0.1	0.95										
1	0.82										