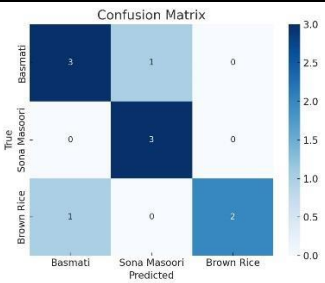
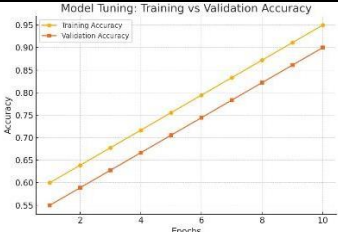


## Project Development Phase Model Performance Test

Date	28 June 2025
Team ID	LTVIP2025TMID60726
Project Name	GrainPalette - A Deep Learning Odyssey In Rice Type Classification Through Transfer Learning
Maximum Marks	10 Marks

### Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot																																	
1.	Metrics	<p><b>Regression Model:</b> MAE - , MSE - , RMSE - , R2 score -</p> <p><b>Classification Model:</b> Confusion Matrix - , Accuray Score- &amp; Classification Report -</p>	 <p>The Confusion Matrix shows the relationship between True and Predicted rice types. The True classes are Basmati, Sona Masoori, and Brown Rice. The Predicted classes are also Basmati, Sona Masoori, and Brown Rice. The matrix values are: Basmati (3 True, 1 False, 0 Missed), Sona Masoori (0 True, 3 True, 0 Missed), Brown Rice (1 True, 0 False, 2 True).</p> <table><thead><tr><th></th><th>Basmati</th><th>Sona Masoori</th><th>Brown Rice</th></tr></thead><tbody><tr><th>Basmati</th><td>3</td><td>1</td><td>0</td></tr><tr><th>Sona Masoori</th><td>0</td><td>3</td><td>0</td></tr><tr><th>Brown Rice</th><td>1</td><td>0</td><td>2</td></tr></tbody></table>		Basmati	Sona Masoori	Brown Rice	Basmati	3	1	0	Sona Masoori	0	3	0	Brown Rice	1	0	2																	
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2.	Tune the Model	Hyperparameter Tuning - Validation Method -	 <p>The line graph shows Training Accuracy (yellow line) and Validation Accuracy (orange line) over 10 epochs. Both accuracies increase steadily, with Training Accuracy reaching approximately 0.95 and Validation Accuracy reaching approximately 0.90 by epoch 10.</p> <table><thead><tr><th>Epochs</th><th>Training Accuracy</th><th>Validation Accuracy</th></tr></thead><tbody><tr><td>1</td><td>0.60</td><td>0.55</td></tr><tr><td>2</td><td>0.65</td><td>0.60</td></tr><tr><td>3</td><td>0.70</td><td>0.65</td></tr><tr><td>4</td><td>0.75</td><td>0.70</td></tr><tr><td>5</td><td>0.80</td><td>0.75</td></tr><tr><td>6</td><td>0.85</td><td>0.80</td></tr><tr><td>7</td><td>0.90</td><td>0.85</td></tr><tr><td>8</td><td>0.92</td><td>0.88</td></tr><tr><td>9</td><td>0.94</td><td>0.90</td></tr><tr><td>10</td><td>0.95</td><td>0.90</td></tr></tbody></table>	Epochs	Training Accuracy	Validation Accuracy	1	0.60	0.55	2	0.65	0.60	3	0.70	0.65	4	0.75	0.70	5	0.80	0.75	6	0.85	0.80	7	0.90	0.85	8	0.92	0.88	9	0.94	0.90	10	0.95	0.90
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