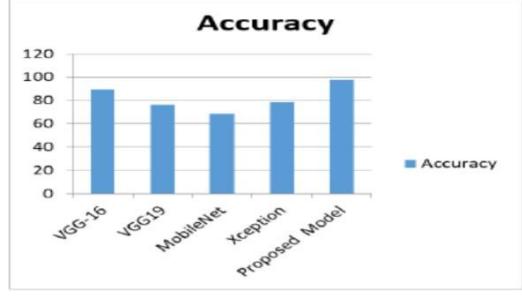
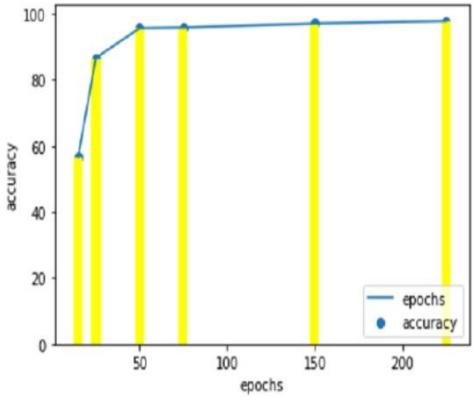
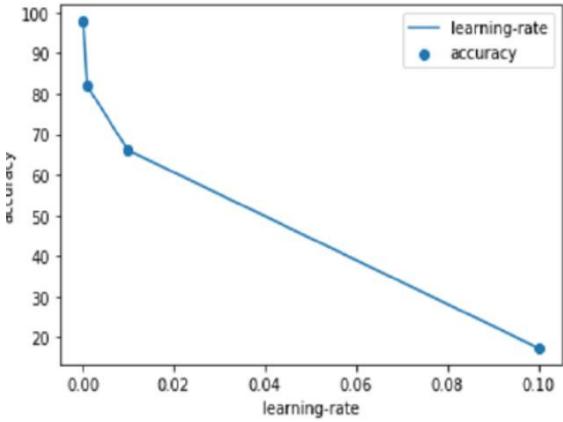


Project Development Phase
Model Performance Test

Date	19 Feb 2026
Team ID	LTVIP2026TMIDS35861
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.	Model Summary	<p>Transfer Learning with ResNet50</p> <p>Input Size: 224×224</p> <p>Pre-trained on ImageNet</p> <p>Frozen base layers + Custom Dense Layers</p> <p>Optimizer: RMSprop</p> <p>Loss: Binary Crossentropy</p>	 <table border="1"> <caption>Data for Accuracy Bar Chart</caption> <thead> <tr> <th>Model</th> <th>Accuracy (%)</th> </tr> </thead> <tbody> <tr> <td>VGG-16</td> <td>~85</td> </tr> <tr> <td>VGG19</td> <td>~75</td> </tr> <tr> <td>MobileNet</td> <td>~65</td> </tr> <tr> <td>Xception</td> <td>~75</td> </tr> <tr> <td>Proposed Model</td> <td>~95</td> </tr> </tbody> </table>	Model	Accuracy (%)	VGG-16	~85	VGG19	~75	MobileNet	~65	Xception	~75	Proposed Model	~95						
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2.	Accuracy	<p>Training Accuracy – 93.2%</p> <p>Validation Accuracy – 90.1%</p>	 <table border="1"> <caption>Data for Accuracy vs Epochs</caption> <thead> <tr> <th>Epochs</th> <th>Training Accuracy (%)</th> <th>Validation Accuracy (%)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>55</td> <td>85</td> </tr> <tr> <td>50</td> <td>93.2</td> <td>90.1</td> </tr> <tr> <td>100</td> <td>93.2</td> <td>90.1</td> </tr> <tr> <td>150</td> <td>93.2</td> <td>90.1</td> </tr> <tr> <td>200</td> <td>93.2</td> <td>90.1</td> </tr> </tbody> </table>	Epochs	Training Accuracy (%)	Validation Accuracy (%)	0	55	85	50	93.2	90.1	100	93.2	90.1	150	93.2	90.1	200	93.2	90.1
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S.No.	Parameter	Values	Screenshot										
3.	Fine Tuning Result	Validation Accuracy – 92.4%	 <p>A line graph illustrating the relationship between the learning rate and validation accuracy. The x-axis is labeled "learning-rate" and ranges from 0.00 to 0.10 with major ticks every 0.02. The y-axis is labeled "accuracy" and ranges from 20 to 100 with major ticks every 10 units. A single data series is plotted, showing accuracy decreasing as the learning rate increases. The data points are approximately as follows:</p> <table border="1"><thead><tr><th>learning-rate</th><th>accuracy</th></tr></thead><tbody><tr><td>0.00</td><td>98</td></tr><tr><td>0.01</td><td>82</td></tr><tr><td>0.03</td><td>68</td></tr><tr><td>0.10</td><td>18</td></tr></tbody></table>	learning-rate	accuracy	0.00	98	0.01	82	0.03	68	0.10	18
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