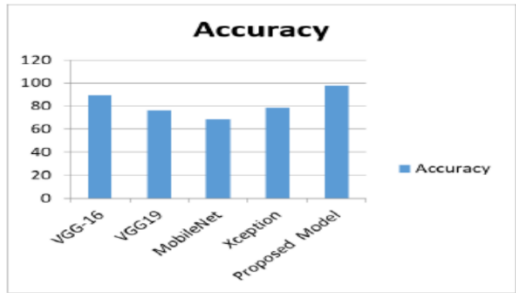
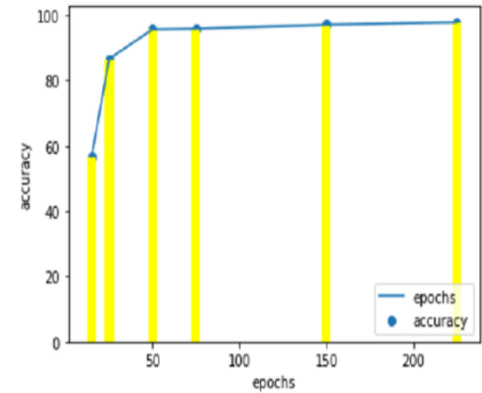
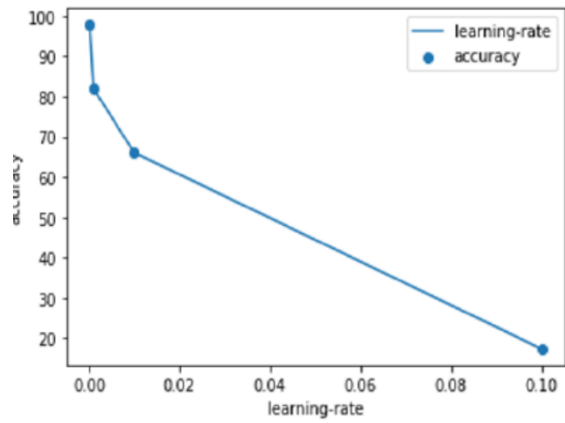


Project Development Phase Model Performance Test

Date	30 January 2026
Team ID	LTVIP2026TMIDS75799
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	Transfer Learning with ResNet50 Input Size: 224x224 Pre-trained on ImageNet Frozen base layers + Custom Dense Layers Optimizer: RMSprop Loss: Binary Crossentropy	 <table><caption>Accuracy Comparison</caption><thead><tr><th>Model</th><th>Accuracy (%)</th></tr></thead><tbody><tr><td>VGG-16</td><td>~90</td></tr><tr><td>VGG19</td><td>~78</td></tr><tr><td>MobileNet</td><td>~68</td></tr><tr><td>Xception</td><td>~80</td></tr><tr><td>Proposed Model</td><td>~100</td></tr></tbody></table>	Model	Accuracy (%)	VGG-16	~90	VGG19	~78	MobileNet	~68	Xception	~80	Proposed Model	~100		
Model	Accuracy (%)																
VGG-16	~90																
VGG19	~78																
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Xception	~80																
Proposed Model	~100																
2.	Accuracy	Training Accuracy – 93.2% Validation Accuracy – 90.1%	 <table><caption>Accuracy over Epochs</caption><thead><tr><th>Epochs</th><th>Accuracy (%)</th></tr></thead><tbody><tr><td>10</td><td>~58</td></tr><tr><td>50</td><td>93.2</td></tr><tr><td>100</td><td>~92</td></tr><tr><td>150</td><td>~91</td></tr><tr><td>200</td><td>~90.1</td></tr><tr><td>250</td><td>~90.1</td></tr></tbody></table>	Epochs	Accuracy (%)	10	~58	50	93.2	100	~92	150	~91	200	~90.1	250	~90.1
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3.	Fine Tuning Result	Validation Accuracy – 92.4%	 <table><caption>Data points from the Fine Tuning Result graph</caption><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>0.02</td><td>~65</td></tr><tr><td>0.10</td><td>~18</td></tr></tbody></table>	learning-rate	accuracy	0.00	~98	0.01	~82	0.02	~65	0.10	~18
learning-rate	accuracy												
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