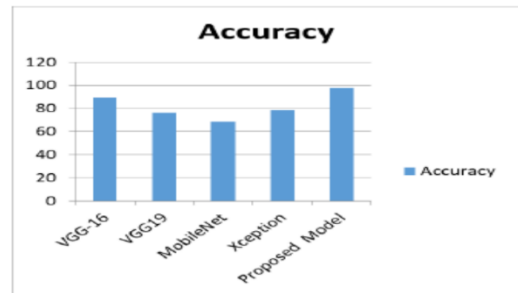
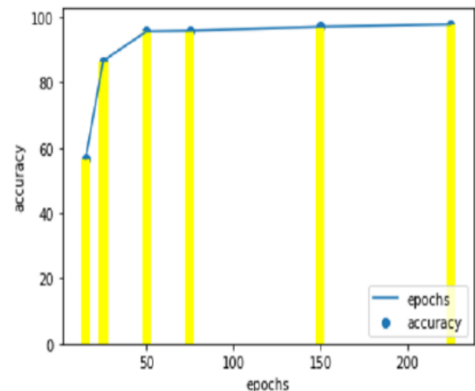
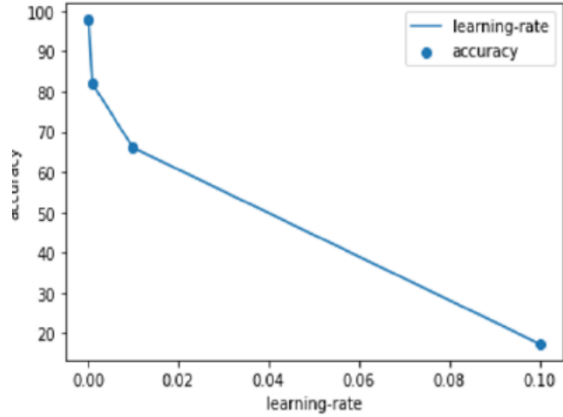


Project Development Phase Model Performance Test

Date	21 Feb 2026
Team ID	LTVIP2026TMIDS34436
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><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>VGG-19</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	VGG-19	~78	MobileNet	~68	Xception	~80	Proposed Model	~100
Model	Accuracy (%)														
VGG-16	~90														
VGG-19	~78														
MobileNet	~68														
Xception	~80														
Proposed Model	~100														
2.	Accuracy	<p>Training Accuracy – 93.2%</p> <p>Validation Accuracy – 90.1%</p>	 <table><caption>Accuracy over Epochs</caption><thead><tr><th>Epochs</th><th>Accuracy (%)</th></tr></thead><tbody><tr><td>25</td><td>~58</td></tr><tr><td>50</td><td>~93.2</td></tr><tr><td>75</td><td>~93.2</td></tr><tr><td>150</td><td>~90.1</td></tr><tr><td>225</td><td>~90.1</td></tr></tbody></table>	Epochs	Accuracy (%)	25	~58	50	~93.2	75	~93.2	150	~90.1	225	~90.1
Epochs	Accuracy (%)														
25	~58														
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S.No.	Parameter	Values	Screenshot								
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>65</td></tr><tr><td>0.10</td><td>18</td></tr></tbody></table>	learning-rate	accuracy	0.00	98	0.01	65	0.10	18
learning-rate	accuracy										
0.00	98										
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