

Project Development Phase
Model Performance Test

Date	15 February 2026
Team ID	LTVIP2026TMIDS49741
Project Name	Project - HematoVision: Advanced Blood Cell Classification Using Transfer Learning
Maximum Marks	

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Base Model: MobileNetV2 (Pre-trained on ImageNet) Input Size: 224x224x3 Classes: 4 (Eosinophil, Lymphocyte, Monocyte, Neutrophil) Optimizer: Adam Loss: Categorical Crossentropy Epochs: 20	 <pre> Model: 'modified_mobilenet_v2' Layer (type) Output Shape Param # ===== InputLayer (None, 224, 224, 3) 0 Functional Functional (None, 7, 7, 1280) 2,257,984 GlobalAveragePooling2D (None, 1280) 0 Dropout (None, 4) 5,124 Total params: 2,263,108 Trainable params: 1,865,604 Non-trainable params: 397,504 ... - Base model: MobileNetV2 (Pre-trained on ImageNet) 12:\$Epc/Mc - Input Size: 224x224x3 - Classes: 4 (Eosinophil, Lymphocyte, Monocyte, Neutrophil) - Optimizer: Adam - Loss: Categorical Crossentropy - Epochs: 20 </pre>

2.	Accuracy	<ul style="list-style-type: none"> - Training Accuracy – 96.5% - Validation Accuracy – 94.2% 	<p>Training & Validation Accuracy</p> <table border="1"> <thead> <tr> <th>Epoch</th> <th>Training Accuracy</th> <th>Validation Accuracy</th> </tr> </thead> <tbody> <tr><td>1</td><td>~0.4</td><td>~0.1</td></tr> <tr><td>3</td><td>~0.6</td><td>~0.4</td></tr> <tr><td>5</td><td>~0.75</td><td>~0.7</td></tr> <tr><td>7</td><td>~0.85</td><td>~0.8</td></tr> <tr><td>9</td><td>~0.9</td><td>~0.85</td></tr> <tr><td>12</td><td>~0.95</td><td>~0.92</td></tr> <tr><td>15</td><td>~0.97</td><td>~0.94</td></tr> <tr><td>18</td><td>~0.98</td><td>~0.95</td></tr> <tr><td>19</td><td>~0.99</td><td>~0.96</td></tr> <tr><td>20</td><td>~0.995</td><td>~0.965</td></tr> </tbody> </table>	Epoch	Training Accuracy	Validation Accuracy	1	~0.4	~0.1	3	~0.6	~0.4	5	~0.75	~0.7	7	~0.85	~0.8	9	~0.9	~0.85	12	~0.95	~0.92	15	~0.97	~0.94	18	~0.98	~0.95	19	~0.99	~0.96	20	~0.995	~0.965
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3.	Fine Tuning Result(if Done)	Validation Accuracy – 97.1%	<p>Fine-Tuning Result</p> <table border="1"> <thead> <tr> <th>[↑ 300 rows hidden]</th> <th>val_accuracy</th> <th>val_accuracy: 0.9711</th> </tr> </thead> <tbody> <tr><td>Epoch 18:</td><td>1.0000</td><td>val_accuracy 0.9669 – 0.9669</td></tr> <tr><td>Epoch 19:</td><td>1.0000</td><td>val_accuracy 0.9692 – 0.9704</td></tr> <tr><td>Epoch 20:</td><td>1.0000</td><td>val_accuracy 0.9711 – 0.9711</td></tr> </tbody> </table> <p>Epoch 20/20 – 30s ins/. Step 18</p>	[↑ 300 rows hidden]	val_accuracy	val_accuracy: 0.9711	Epoch 18:	1.0000	val_accuracy 0.9669 – 0.9669	Epoch 19:	1.0000	val_accuracy 0.9692 – 0.9704	Epoch 20:	1.0000	val_accuracy 0.9711 – 0.9711																					
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