

## Project Development Phase Model Performance Test

Date	29 June 2025
Team ID	LTVIP2025TMID59847
Project Name	Hematovision: Advanced Blood Cell Classification using Transfer Learning
Maximum Marks	4 Marks

### Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot																														
1.	Metrics	<b>Classification Model:</b> <ul style="list-style-type: none"><li>Confusion Matrix - Available</li><li>Accuracy Score - 0.95</li><li>Classification Report - Included</li></ul>	<div><p>Model Summary:</p><p>Model: "sequential"</p><table><thead><tr><th>Layer (type)</th><th>Output Shape</th><th>Param #</th></tr></thead><tbody><tr><td>mobilenetv2_1.00_224 (Functional)</td><td>(None, 7, 7, 1280)</td><td>2257984</td></tr><tr><td>global_average_pooling2d (GlobalAveragePooling2D)</td><td>(None, 1280)</td><td>0</td></tr><tr><td>dense (Dense)</td><td>(None, 4)</td><td>5124</td></tr></tbody></table><p>Total params: 2263108 (8.63 MB) Trainable params: 2228996 (8.50 MB) Non-trainable params: 34112 (133.25 KB)</p></div>	Layer (type)	Output Shape	Param #	mobilenetv2_1.00_224 (Functional)	(None, 7, 7, 1280)	2257984	global_average_pooling2d (GlobalAveragePooling2D)	(None, 1280)	0	dense (Dense)	(None, 4)	5124																		
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2.	Tune the Model	Hyperparameter Tuning - Basic tuning applied Validation Method - Validation Split (20%)	<div><p>Figure 1</p><p>Training vs Validation Accuracy</p><table><thead><tr><th>Epochs</th><th>Training Accuracy</th><th>Validation Accuracy</th></tr></thead><tbody><tr><td>1.0</td><td>0.70</td><td>0.68</td></tr><tr><td>1.5</td><td>0.78</td><td>0.75</td></tr><tr><td>2.0</td><td>0.82</td><td>0.78</td></tr><tr><td>2.5</td><td>0.85</td><td>0.82</td></tr><tr><td>3.0</td><td>0.88</td><td>0.85</td></tr><tr><td>3.5</td><td>0.90</td><td>0.88</td></tr><tr><td>4.0</td><td>0.92</td><td>0.90</td></tr><tr><td>4.5</td><td>0.94</td><td>0.92</td></tr><tr><td>5.0</td><td>0.95</td><td>0.94</td></tr></tbody></table></div>	Epochs	Training Accuracy	Validation Accuracy	1.0	0.70	0.68	1.5	0.78	0.75	2.0	0.82	0.78	2.5	0.85	0.82	3.0	0.88	0.85	3.5	0.90	0.88	4.0	0.92	0.90	4.5	0.94	0.92	5.0	0.95	0.94
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