

Part - A					
Experiment-1 Object_detection_using_yolov8					
	Configuration 1				
	Epochs	Optimizer	Learning_rate	Batch_Size	mAP50-95(B)
	16	adamw	0.002	36	0.796782911
	Configuration 2				
	Epochs	Optimizer	Learning_rate	Batch_Size	mAP50-95(B)
	14	adamw	0.0002	28	0.815761575
	Configuration 3				
	Epochs	Optimizer	Learning_rate	Batch_Size	mAP50-95(B)
	12	adamw	0.0004	26	0.821353681
Experiment-2 Unet Segmentation					
	configuration 1	configuration 2	configuration 3		
Epochs	20	25	15		
Learning_rate	0.001	0.003	0.01		
Optimizer	Adamax	Adamax	Adamax		
Batch_size	60	95	75		
Test Dice	0.836447954	0.702472448	0.709350526		
Test IoU	0.722325087	0.548823476	0.556895435		
Experiment-3 FineTune SegFormer					
	Image	Mean-iou	Mean_Accuracy	Overall_accuracy	
Configuration 1	3	0.220463767	0.480216584	0.914295428	
Configuration 2	7	0.326865979	0.503678393	0.766110309	
Configuration 3	2	0.235179003	0.338101712	0.758022164	

Part-B

Experiment 1 - VGG

Epoch	Accuracy	Loss	Val_Accuracy	Val_Loss	Learning_Rate
Epoch 1	0.169	5.0165	0.5479	2.3276	0.001
Epoch 2	0.447	2.6921	0.5737	2.0838	0.001
Epoch 3	0.4651	2.5428	0.5866	2.013	0.001
Epoch 4	0.4598	2.4939	0.5805	1.9959	0.001
Epoch 5	0.4671	2.4636	0.5855	1.9733	0.001

Overall AUC-ROC score	0.983316646
Mean Average Precision (MAP)	0.651723474
Precision (mean across classes)	0.651723474
Accuracy	0.5945

Experiment 2- Resnet

Epoch	Accuracy	Loss	Val_Accuracy	Val_Loss	Learning_Rate
Epoch 1	0.344	4.3025	0.6658	1.901	0.001
Epoch 2	0.5866	2.1922	0.6704	1.7826	0.001
Epoch 3	0.6026	2.0763	0.6748	1.7723	0.001
Epoch 4	0.6021	2.08	0.6723	1.7698	0.001
Epoch 5	0.6016	2.0827	0.6706	1.7873	0.001

Overall AUC-ROC score	0.991087747
Mean Average Precision (MAP)	0.757404472
Precision (mean across classes)	0.757404472
Accuracy	0.6754