Model Development Phase Template

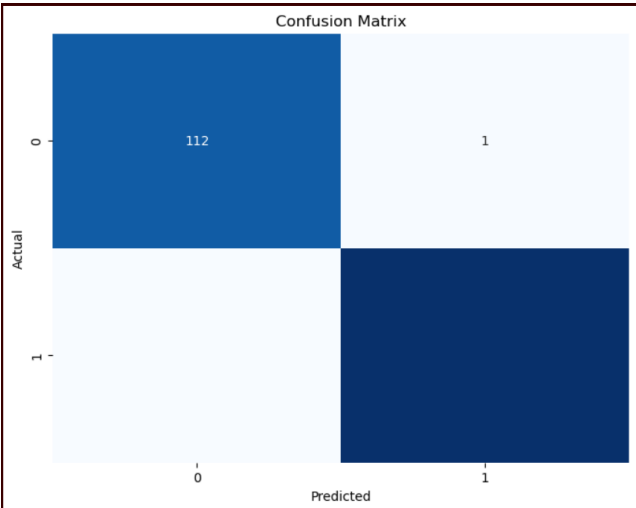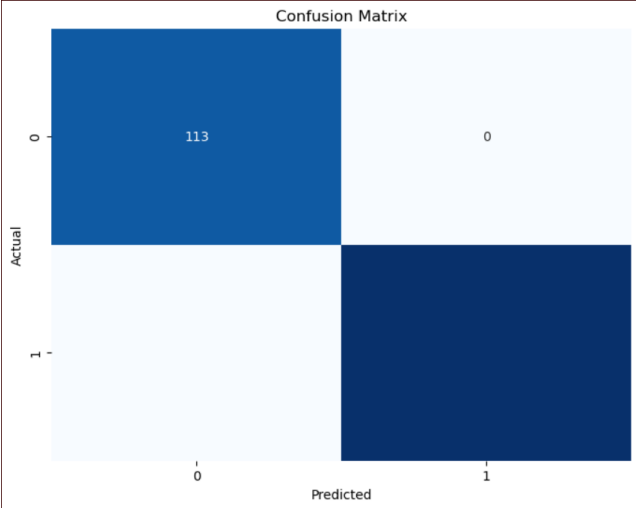| Date	16 June 2024
Team ID	SWTID1720112707
Project Title	Anemia Sense: Leveraging Machine Learning For Precise Anemia Recognitions
Maximum Marks	4 Marks

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include classification reports, accuracy, and confusion matrices for multiple models, presented through respective screenshots.

Initial Model Training Code:

Paste the screenshot of the model training code

Model Validation and Evaluation Report:

Model	Classification Report	Accuracy	Confusion Matrix

Logistic Regression Model	Classification Report:
	
	          precision recall f1-score support
	
	       0 1.00 0.99 1.00 113
	       1 0.99 1.00 1.00 135
	
	    accuracy 1.00 248
	   macro avg 1.00 1.00 1.00 248
	weighted avg 1.00 1.00 1.00 248
	
	Cross-validation Scores: [0.97487437 0.98492462
	
	      0.97979798 0.98484848 0.99494949]
		0.99	

Random Forest Model	Classification Report:
	
	          precision recall f1-score support
	
	       0 1.00 1.00 1.00 113
	       1 1.00 1.00 1.00 135
	
	    accuracy 1.00 248
	   macro avg 1.00 1.00 1.00 248
	weighted avg 1.00 1.00 1.00 248
	
	Cross-validation Scores: [1. 1. 1. 1. 1.]
		1.00	

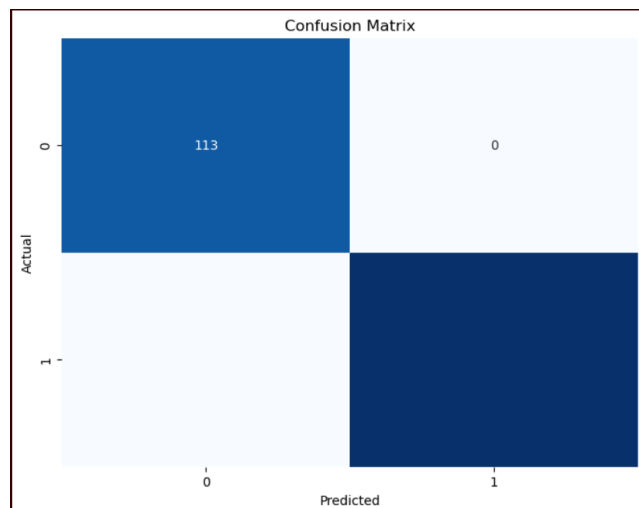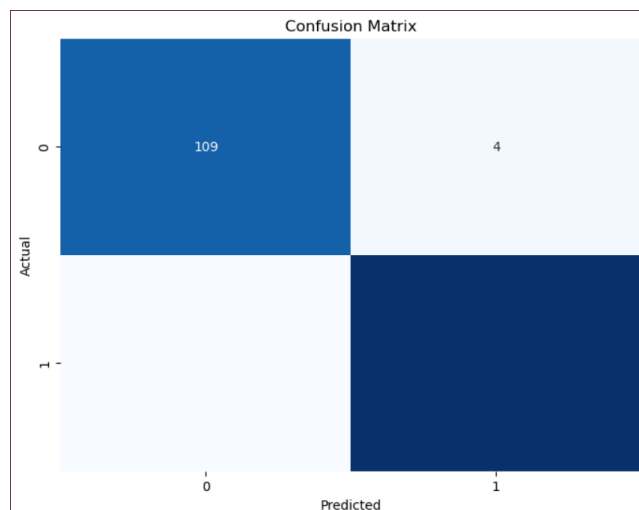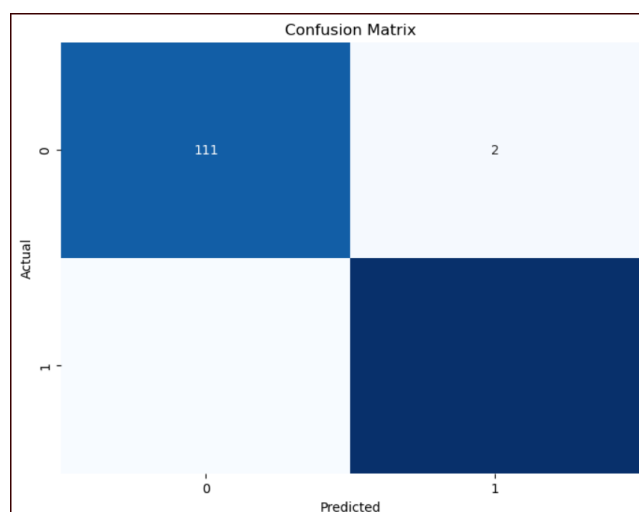|			

Decision Tree Model	Classification Report:
	
	             precision recall f1-score support
	
	        0 1.00 1.00 1.00 113
	        1 1.00 1.00 1.00 135
	
	   accuracy 1.00 248
	  macro avg 1.00 1.00 1.00 248
	weighted avg 1.00 1.00 1.00 248
	
	Cross-validation Scores: [1. 1. 1. 1. 1.]
		1.00	

Naïve Bayes Model	Classification Report:
	
	             precision recall f1-score support
	
	        0 0.99 0.96 0.98 113
	        1 0.97 0.99 0.98 135
	
	   accuracy 0.98 248
	  macro avg 0.98 0.98 0.98 248
	weighted avg 0.98 0.98 0.98 248
	
	Cross-validation Scores: [0.92964824 0.96482412
	
	0.9040404 0.92929293 0.93434343]
		0.98	

Support Vector Machine	Classification Report:
	
	             precision recall f1-score support
	
	        0 1.00 0.98 0.99 113
	        1 0.99 1.00 0.99 135
	
	   accuracy 0.99 248
	  macro avg 0.99 0.99 0.99 248
	weighted avg 0.99 0.99 0.99 248
	
	Cross-validation Scores: [0.96984925 0.97487437
	
	0.97474747 0.97979798 0.98484848]
		0.99	

Gradient Boost Classifier Model	Classification Report:
	
	           precision recall f1-score support
	
	      0 1.00 1.00 1.00 113
	      1 1.00 1.00 1.00 135
	
	  accuracy 1.00 248
	  macro avg 1.00 1.00 1.00 248
	weighted avg 1.00 1.00 1.00 248
	
	Cross-validation Scores: [1. 1. 1. 1. 1.]
		1.00	