

Model Development Phase

Date	30th June 2024
Team ID	SWTID1720080161
Project Title	Revolutionizing Liver Care : Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
SUPPORT VECTOR MACHINE	This type of model uses decision boundaries (Hyperplanes) to classify the target variable. This is useful for binary classification.	Default Parameters	Test Accuracy: 0.902834008097166 F1-score : 0 0.82 1 0.93 Recall: 0 0.97 1 0.88

Model 2	Brief description	Hyperparameters used	Performance metric value
LOGISTIC REGRESSION	<p>This type of model uses probability / sigmoid curve to classify binary target variables.</p> <p>This is done using sigmoid curves</p>	<p>max_iter=1000, penalty="l1", solver="liblinear", C=0.01</p>	<p>Test Accuracy: 0.951417004048583</p> <p>F1-score :</p> <p>0 0.90 1 0.97</p> <p>Recall:</p> <p>0 0.97 1 0.95</p>
Model 3	Brief description	Hyperparameters used	Performance metric value
DECISION TREE CLASSIFIER	<p>Uses entropy to make decisions and provide classifications</p>	<p>criterion="entropy", max_depth=3, min_samples_leaf=300</p>	<p>Test Accuracy: 0.9757085020242915</p> <p>Recall: 0.9682539682539683</p> <p>F1 Score: 0.9838709677419354</p>