Project Development Phase
Model Performance Test

Date	27 June 2o25
Team ID	LTVIP2D25TM ID37185
Project Name	Revolutionizing Liver Care: Predicting Liver **Cirrhosis** Using Advanced Machine Learning Techniques
Maximum Marks	

Model Performance Testing:

Our project Model Performance Testing:

S.No.	**Parameter**	**Values**	**Screenshot**
1.	Trained and compared Logistic Regression, Support Vector Classifier, XGBoost, and K-Nearest Neighbors. KNN showed best performance.	• Data Size: 950 records, 42 features • Target Variable: Binary classification — Patient has liver cirrhosis (Yes/No) • Train-Test Split: 80-20a • Best Model: K-Nearest Neighbors. • Evaluation Metrics Used: Accuracy, Precision, Recall, F1-scare, Confusion Matrix • Fine-tuning: Performed using RandomizedSearchCV for k parameter in KNN	
3.	Accuracy	Training Accuracy - 9s.3Da (KNN)	
3.	Validation Accuracy - 87.36% (after tuning KNN using RandamizedSearchCV)	Validation Accuracy -87.36a (KNN)	