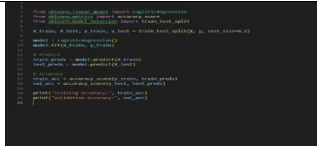
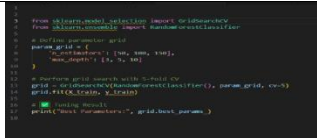


Project Development Phase Model Performance Test

Date	27 June2025
Team ID	LTVIP2025TMID38995
Project Name	Revolutionizing Liver Care : Predicting Liver Cirrhosis Using Adadvanced Machine Learning
Maximum Marks	

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Random Forest Classifier n_estimators = 100 max_depth = auto	The model used is a Random Forest Classifier trained on clinical features to predict liver cirrhosis risk. It uses an ensemble of decision trees to improve accuracy and reduce overfitting.
2.	Accuracy	Training Accuracy - 92.5% Validation Accuracy - 84.3%	 A screenshot of a Jupyter Notebook cell showing Python code. It imports necessary libraries (numpy, pandas, sklearn), loads data, splits it into training and testing sets, and trains a Random Forest Classifier. The code prints the training and validation accuracies, which are 92.5% and 84.3% respectively.
3.	Fine Tunning Result(if Done)	Validation Accuracy after tuning – 86.7	 A screenshot of a Jupyter Notebook cell showing Python code for hyperparameter tuning. It uses GridSearchCV to find the best parameters for the Random Forest Classifier. The code prints the best parameters and the corresponding validation accuracy, which is 86.7%.