Model Development Phase Template

Date	23 September 2024
Team ID	LTVIP2024TMID25021
Project Title	Prediction and Analysis of liver patient data using machine learning
Maximum Marks	5 Marks

Feature Selection Report Template

In the forth coming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Age	Age of the patient in years	Yes	Age is a significant predictor for liver conditions as certain liver diseases are more prevalent in older individuals.
Gender	Gender of the patient (Male/Female)	Yes	Gender is often a factor in liver diseases; certain conditions may be more prevalent in men or women
Total Bilirubin	Total bilirubin levels in the blood (mg/dL)	Yes	Elevated bilirubin levels are directly linked to liver dysfunction, making this a key feature for liver disease prediction.
Direct Bilirubin	Direct bilirubin levels in the blood (mg/dL)	Yes	Levels of Bilirubin in blood can indicate that the liver is unable to excrete Bilirubin

Alkaline phosphotase	Alkaline Phosphatase enzyme levels (U/L)	Yes	High levels of ALP in blood may indicate liver disease
Alamine Aminiotransferase	ALT enzyme levels (U/L)	Yes	Increased levels of alanine aminotransferase (ALT) in the blood can indicate liver damage (hepatitis,live cancer etc)
Aspartate Aminotransferase	An enzyme that helps the liver convert food into energy	Yes	Increased levels of aspartate aminotransferase in blood can cause liver disease, liver cancer or tumors
Total Protiens	Measures the total amount of proteins(albumin and globulin) found in your blood	Yes	Low level in total proteins may indicate liver or kidney problem. A high total protein level could indicate dehydration or cancer such as multiple myeloma
Albumin	Albumin is a protein produced by liver	Yes	A low albumin level in patients indicates liver diseases such as cirrhosis.
Albumin and Globulin Ratio	The albumin-to-globulin ratio is a measure of amount of albumin proteins in blood compared to globulins.	Yes	A low The albumin-to-globulin ratio is often found in patients with liver disease such as cirrhosis or hepatits.
Dataset	Disease outcome	Yes	The target variable for predictive modeling–is essential for the project's goal.