# Problem Statement

Discovering the existence of liver disease at an early stage is a complex task for the doctors. Early prediction of liver disease using classification algorithms is an efficacious task that can help the doctors to diagnose the disease within a short duration of time.

The main objective of this project is to analyze the parameters of various classification algorithms and compare their predictive accuracies so as to find out the best classifier for determining the liver disease. Here we are building a model by applying various machine learning algorithms to find the best accurate model and integrate it to a flask-based web application. User can predict the disease by entering parameters in the web application.

ML algorithms are new techniques to handle many hidden problems in medical data sets. This approach can help healthcare management and professionals to explore better results in numerous clinical applications, such as medical image processing, language processing, and tumor or cancer cell detection, by finding appropriate features. Several statistical and machine learning approaches (e.g., simulation modeling, classification, and inference) have been used by researchers and lab technicians for better prediction. The clinical results are more data-driven than model-dependent.

Model For Statistical Machine Learning Approaches To Liver Disease Prediction

Train Data

Prediction

Data

UI

Evaluation

Model

Algorithm

Data Preprocessing

Inputs

Test Data

User
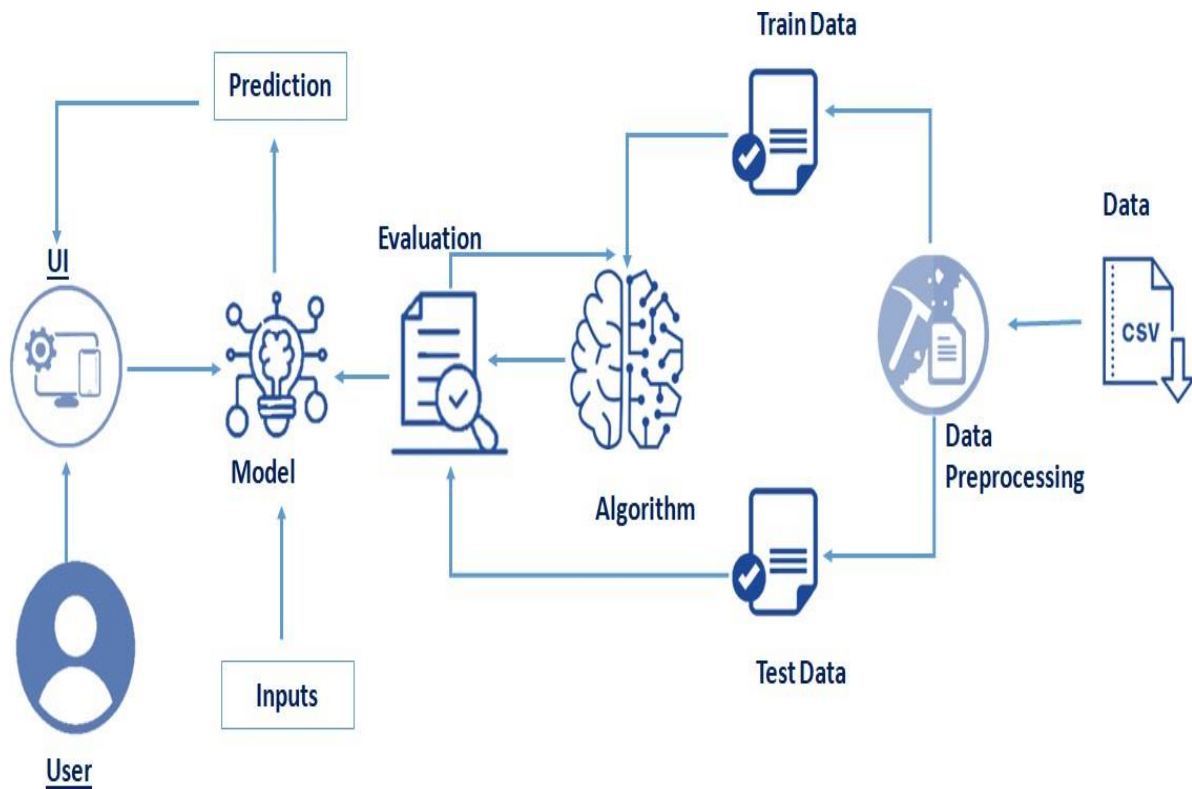
Questions	Description
Who does the problem affect?	People with heavy consumption of alcohol, maintaining improper diet, etc. could use this application to check their liver condition.
Why is it important to use?	Using this application, the user predict thathe/she has liver disease and accordingly the problem can be resolved.
What are the benefits?	User can able to take precaution and prevent the disease from getting worse. Prevention is always better than cure.
How is it better than others?	This model has better accuracy than other prediction models.
When to use?	If user has any symptom, he/she can use this model to confirm that.