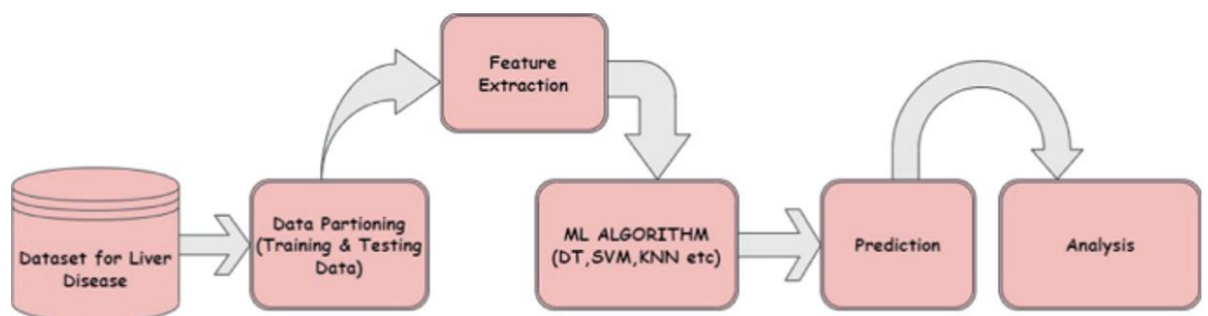


# STATISTICAL MACHINE LEARNING APPROACHES TO LIVER DISEASE PREDICTION

## IDEATION

- Liver Diseases are prevalent in India accounting for 2.4% of Indian deaths per year . According to the WHO, liver disease is one of the most common causes of death in India.
- Liver diseases have become a menacing threat in India with around 10 lakh patients being newly diagnosed with it every year. Liver disease owing to its subtle symptoms remains obscure and hence leading to an onerous diagnosis, often the symptoms become apparent when it is too late .
- Therefore, an endeavour is made for the forecast of liver sickness in patients utilizing machine learning techniques.

## BLOCK DIAGRAM



- The data for this project was obtained from Kaggle. This data set contains 416 liver patient records and 167 non liver patient records collected from North East of Andhra Pradesh, India
- Methodologies :
  - ✓ Data Cleaning and Data Preprocessing
  - ✓ Explatory Data Analysis
  - ✓ Data Visualization
  - ✓ Machine Learning - Supervised Learning Algorithms
    - Decision Trees
    - K Nearest Neighbors
    - Logistic Regression
    - Support Vector Machines
- Evaluation Metrics: Jaccard Index , F1-Score , Log Loss
- Technologies : Anaconda , Jupyter , Python
- Libraries : Pandas , NumPy , Matplotlib , Seaborn , scikit-learn