

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	4 November 2022
Team ID	PNT2022TMID53565
Project Name	Project - Statistical Machine Learning Approaches to Liver Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

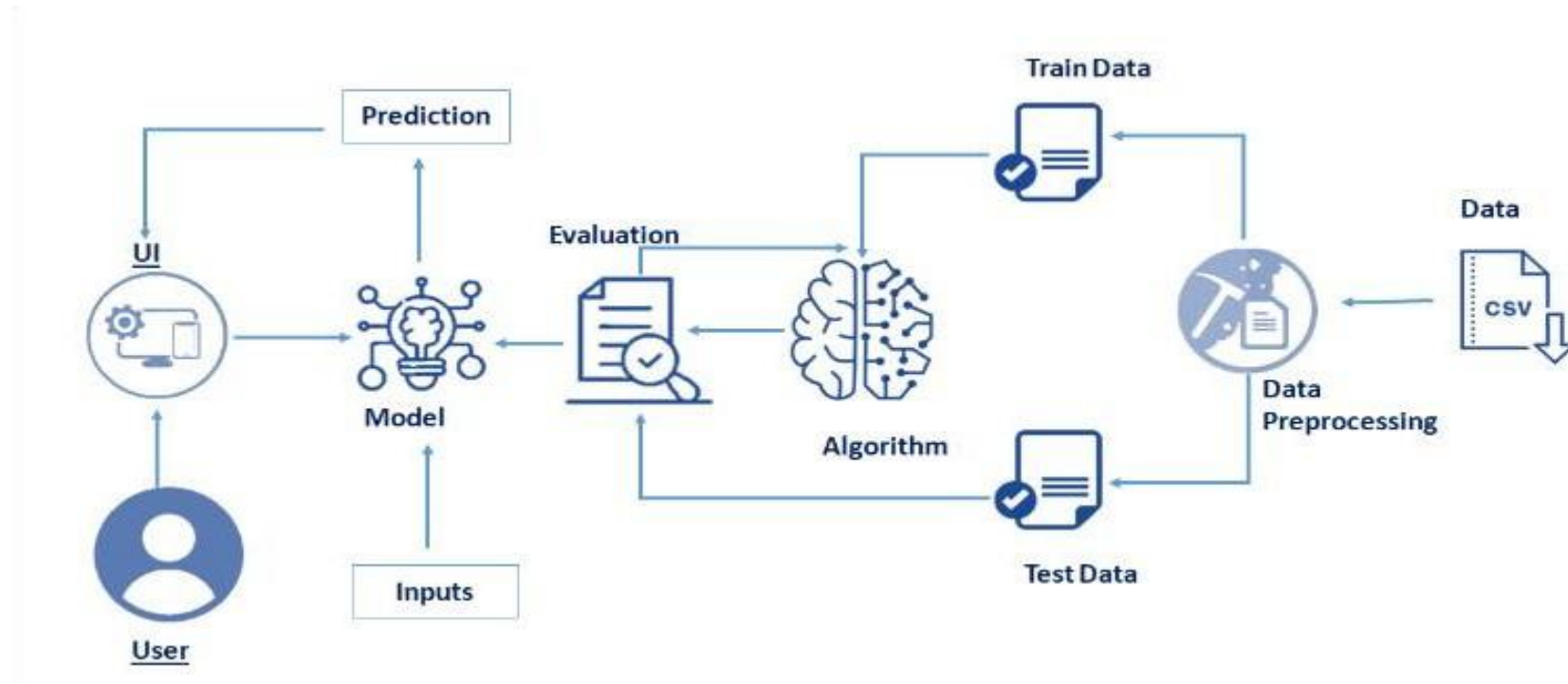


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the web application .	HTML,CSS,Javascript
2.	Application Logic-1	The user interacts with the UI to obtain input features.	HTML, Python-Flask
3.	Application Logic-2	Features are analysed by the machine learning algorithm.	Python,Jupyter Notebook
4.	Application Logic-3	After analysis, the result is displayed in the UI.	Python
5.	Database	Dataset is collected from liver patients in Andhra Pradesh	Excel
6.	Cloud Database	Database running on a cloud computing platform and access to that database is provided as a service	IBM Cloud Databases
7.	File Storage	Data is stored in a hierarchical structure	Local Filesystem
8.	Machine Learning Model	We are using different classification algorithms on our given dataset.	Support Vector Machine, Random Forest Regression, K-Nearest Neighbours algorithm

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask micro webframework	Python
2.	Security Implementations	Protection from phishing,malwares and encryption during login is provided.	IBM Cloud, IBM Watson Studio
3.	Availability	It is available for all data sizes.	-
4.	Performance	Storage can be extended based on our requirements	