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

Date	18 October 2022
Team ID	PNT2022TMID52707
Project Name	Statistical Machine Learning Approaches to Liver Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

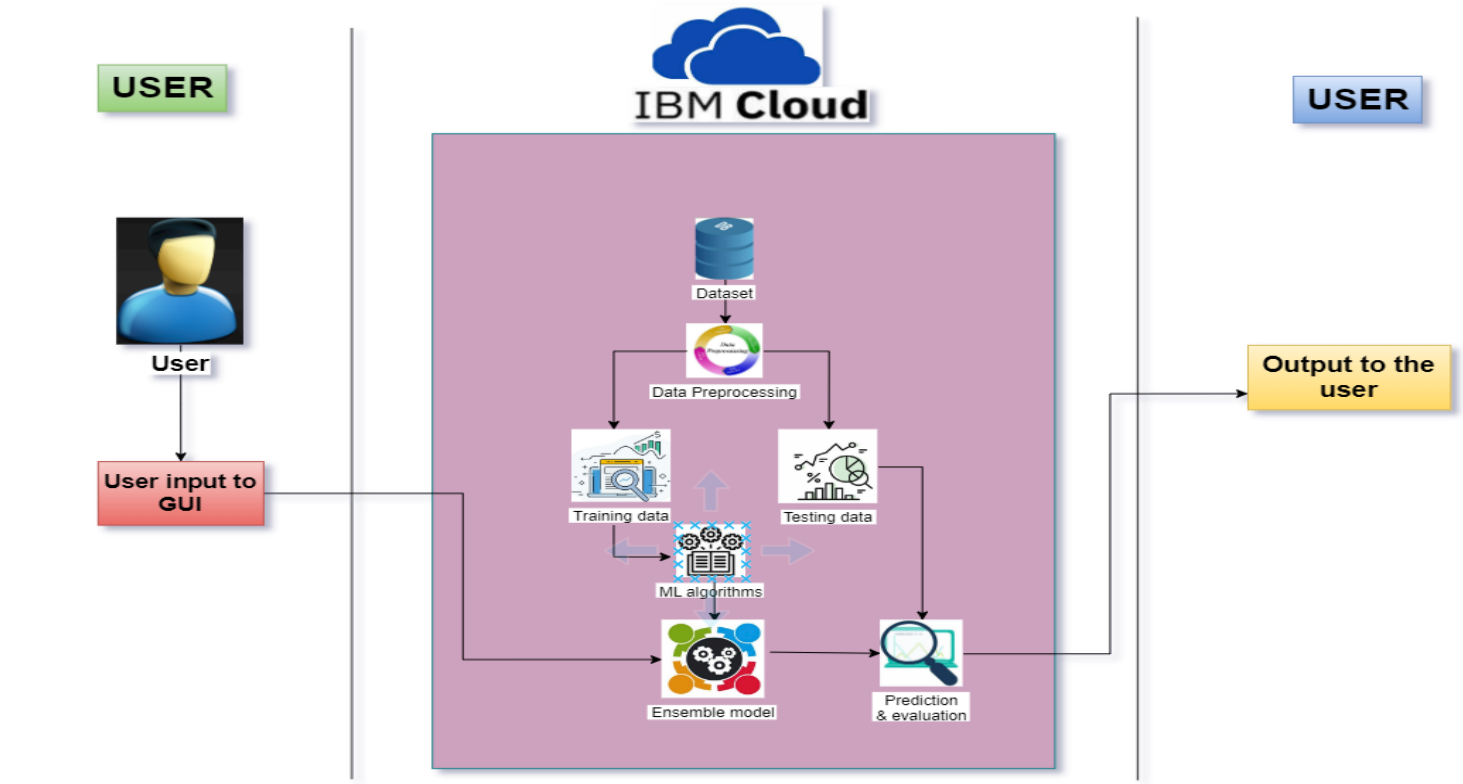

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user get easy interaction through web based liver disease predictor (UI).	HTML, CSS, Python
2.	Application Logic-1	Dealing with Dataset	Python
3.	Application Logic-2	Training and Building Ensemble Machine Learning Model	Python
4.	Application Logic-3	Deployment	Python Flask
5.	Database	Data format for processing	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	To store the dataset for the process	Local Filesystem, IBM cloud
8.	Machine Learning Model	Ensemble Machine Learning Model can be used to increase the accuracy of the prediction.	Ensemble Machine Learning Model.
9.	Infrastructure (Server / Cloud)	On cloud server we will be deploying the web interface using flask	Python Flask

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Micro web framework written in python	Flask
2.	Security Implementations	Flask-Security allows you to quickly add common security mechanisms to your Flask application. They include Session-based authentication, Role management.	Flask Security & Validation
3.	Scalable Architecture	Flask is also highly scalable as it can process a high number of requests each day. This microframework modularize the entire code and let developers work on independent chunks and use them as the code base grows.	Flask
4.	Availability	High compatibility with the latest technologies and allows customization.	Flask
5.	Performance	• Integrated support for unit testing. • RESTful request dispatching. • Uses Jinja templating. • Support for secure cookies (client-side sessions) 100% WSGI 1.0 compliant	Flask