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

Date	20 October 2022
Team ID	PNT2022TMID00269
Project Name	Project - Statistical Machine Learning Approaches to Liver Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

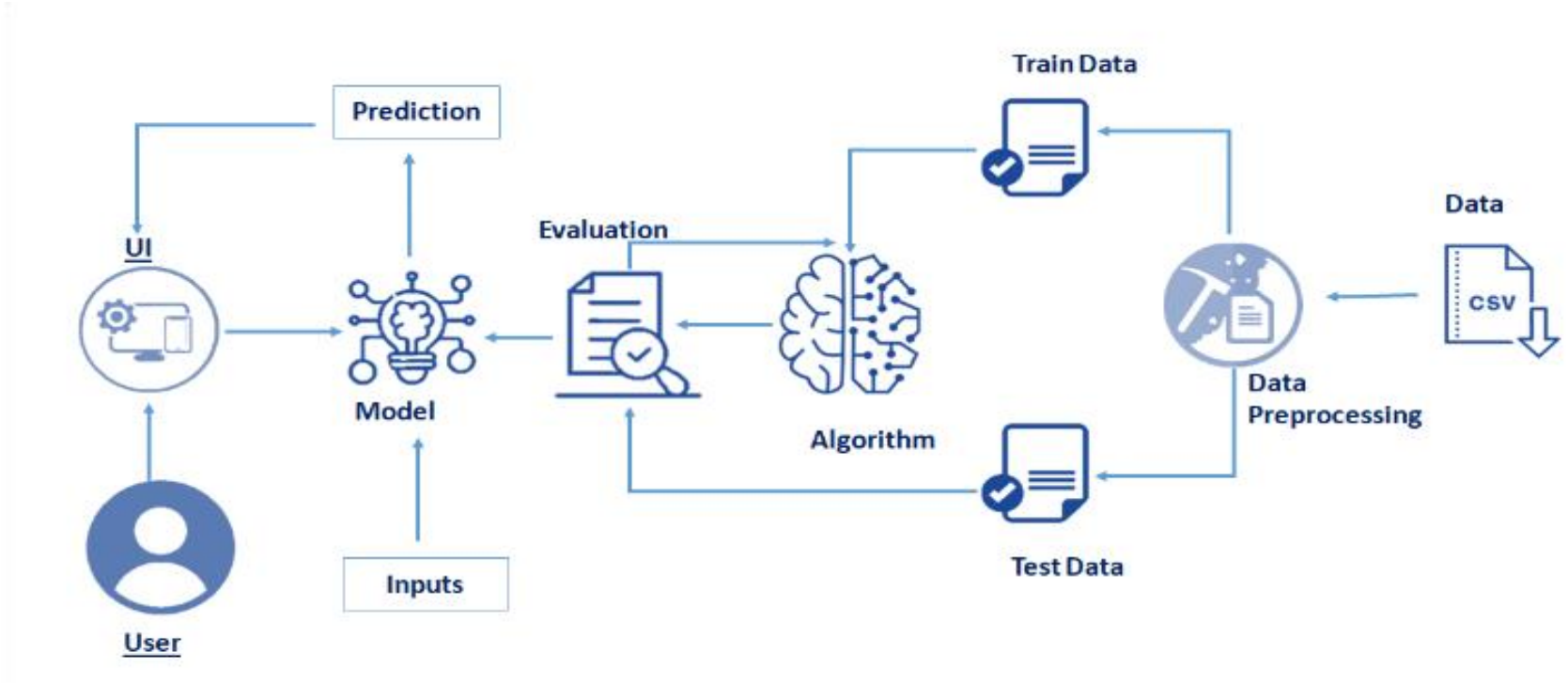

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the application to depict the human-computer interaction and communication	HTML
2.	Application Logic-1	User interacts with the UI (User Interface) to upload the input features.	HTML, Python-Flask
3.	Application Logic-2	Uploaded features/input is analysed by the model which is integrated.	Python
4.	Application Logic-3	Once a model analyses the uploaded inputs, the prediction is showcased on the UI.	Python
5.	Database	Patient records collected from North East of Andhra Pradesh, India	Python
6.	Cloud Database	Database that typically runs on a cloud computing platform and access to the database is provided as-a-service	IBM Cloud Databases
7.	File Storage	To store data in a hierarchical structure	Local Filesystem
8.	Machine Learning Model	We apply classification algorithms on our 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 web framework	Python
2.	Security Implementations	With all aspects of the job including detecting malicious attacks, analysing the network endpoint protection and vulnerability assessment, Sign in encryption.	IBM Cloud, IBM Watson Studio
3.	Availability	Available for all data size	-
4.	Performance	Can extend the storage according to our needs	Python