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

Date	13 October 2022
Team ID	PNT2022TMID15929
Project Name	Early Chronic Kidney Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

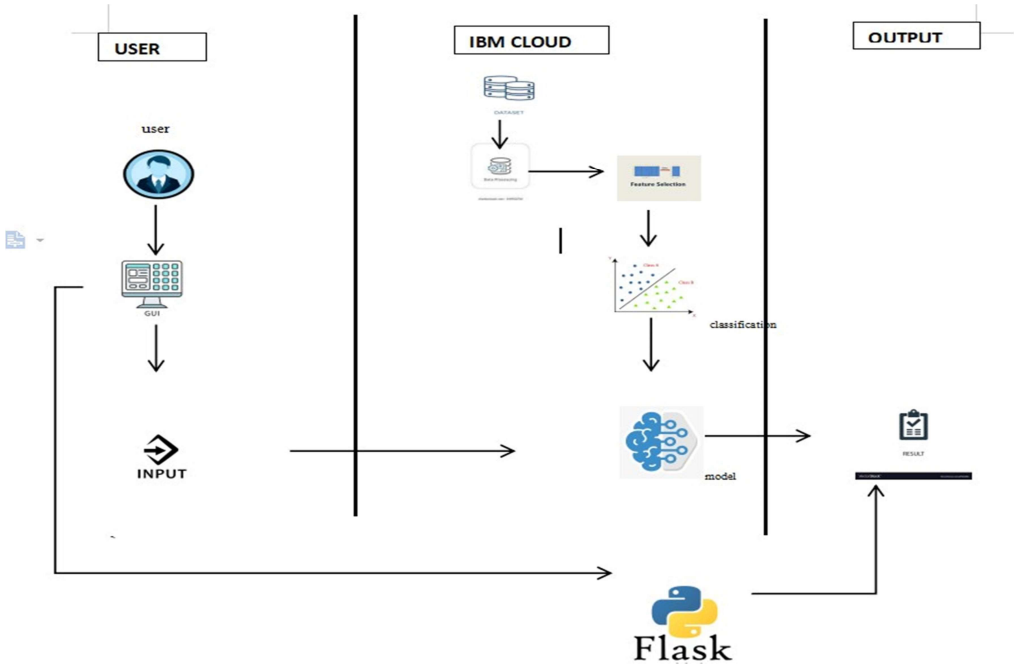

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	An interface for the user to interact with the prediction model	HTML, CSS, JavaScript
2.	User Registration	User can register in the web application	HTML forms
3.	Disease prediction	The user enters the data which is given fed as input to model to predict the disease	Machine Learning with python
4.	Update prediction result	The result of prediction is updated in web UI	Python
5.	Database	Data Type-Numeric	MySQL
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	Machine Learning Model	To predict the early chronic kidney disease using various input parameters	Logistic Regression
8.	Infrastructure (Server / Cloud)	Application Deployment Cloud	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The python open-source frameworks are used to build the web application as well as to build Machine Learning model.	Python Flask
2.	Scalable Architecture	The 3-tier architecture used with a separate user interface, application tier and data tier make it easily scalable.	IBM Watson Studio
3.	Availability	The web application is always available as it is deployed in cloud.	IBM Cloud
4.	Performance	The performance of the website is improved with caching and security.	IBM Cloud Internet Services.