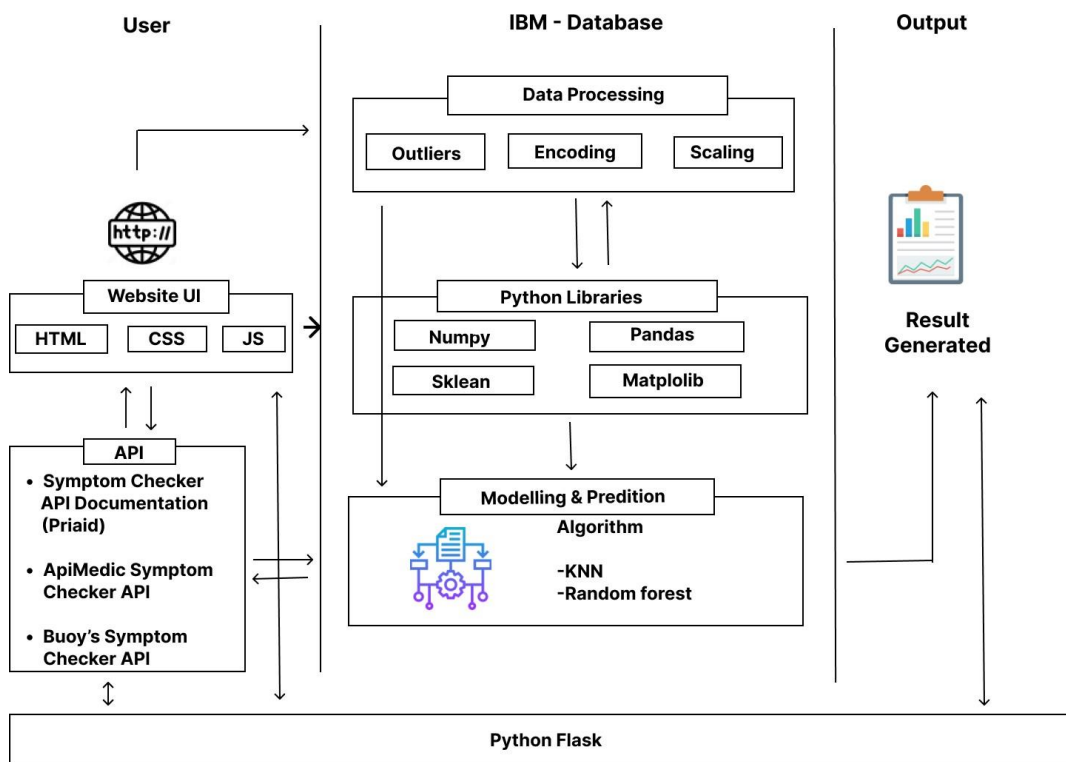# Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID22283
Project Name	Project – Early Detection of Chronic Kidney Disease
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the prediction model through website.	HTML, CSS, JavaScript
2.	Cloud Database	The model is provided with data from IBM cloud database.	IBM Database(CSV)
3.	Application Logic-1	Logic for a process in the application	Python (Jupyter)
4.	Machine Learning Model	This model is developed to predict the disease using ML algorithm	Random forest algorithm, KNN, Decision tree
5.	External API	Purpose of External API used in the application	Symptom Checker API Documentation (Priaid), ApiMedic Symptom Checker API, Buoy's Symptom Checker API
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python for Backend purpose and flask is imported for front end purpose	Python Flask, IBM Cloud DB
2.	Security Implementations	The user profile and given inputs will be secure	Encryptions, OWASP, Etc.,
3.	Scalable Architecture	The accuracy that they affected by the disease and its description will be provided	Random Forest ML Algorithm, Python libraries.
4.	Availability	Anyone and in anytime they can visit our website	IBM Load Balancer
5.	Performance	The user can get the knowledge of the disease and the percentage of affected by the disease.	Random Forest ML Algorithm