

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

Date	03 October 2022
Team ID	PNT2022TMID36181
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

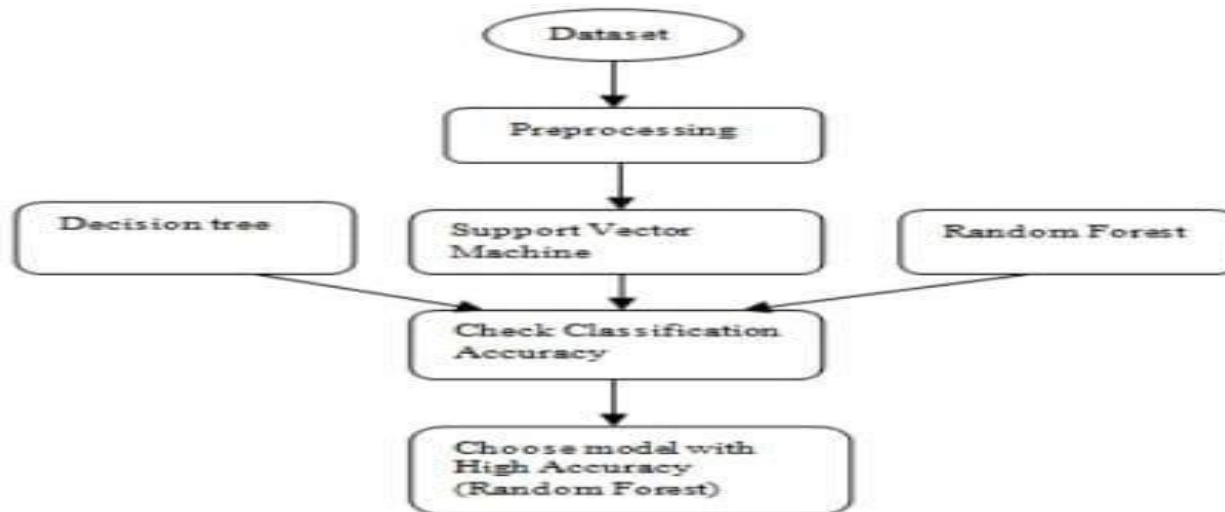


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web Application, Cloud UI	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Machine Learning Algorithms such as Random forest, Decision Tree , Logistic Regression and SVM. Python Flask Application for Web App	Java / Python
3.	Application Logic-2	IBM Watson Speech to Text technology enables fast and accurate speech transcription in multiple languages for a variety of use cases, including but not limited to customer self-service, agent assistance and speech analytics.	IBM Watson STT service
4.	Application Logic-3	The IBM Watson Assistant service combines machine learning, natural language understanding, and an integrated dialog editor to create conversation flows between your apps and your users.	IBM Watson Assistant
5.	Database	Stored Procedure (EXEC)	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Tensorflow. Google Tensorflow, an open-source software framework for building and using machine learning neural networks	Artificial Intelligence
2.	Security Implementations	In security, machine learning continuously learns by analyzing data to find patterns so we can better detect malware in encrypted	AES 256 , Cofense PDR
3.	Scalable Architecture	Scalability is high due to accuracy provided by the model and Responsive UI/UX	React Framework, jQuery, Bootstrap, Cloudfare
4.	Availability	The website availability must be valid for the users to access the resource	Acunetix, Intruder,
5.	Performance	The performance must be good while using the websites which the users proceeds the websites	Machine Learning