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

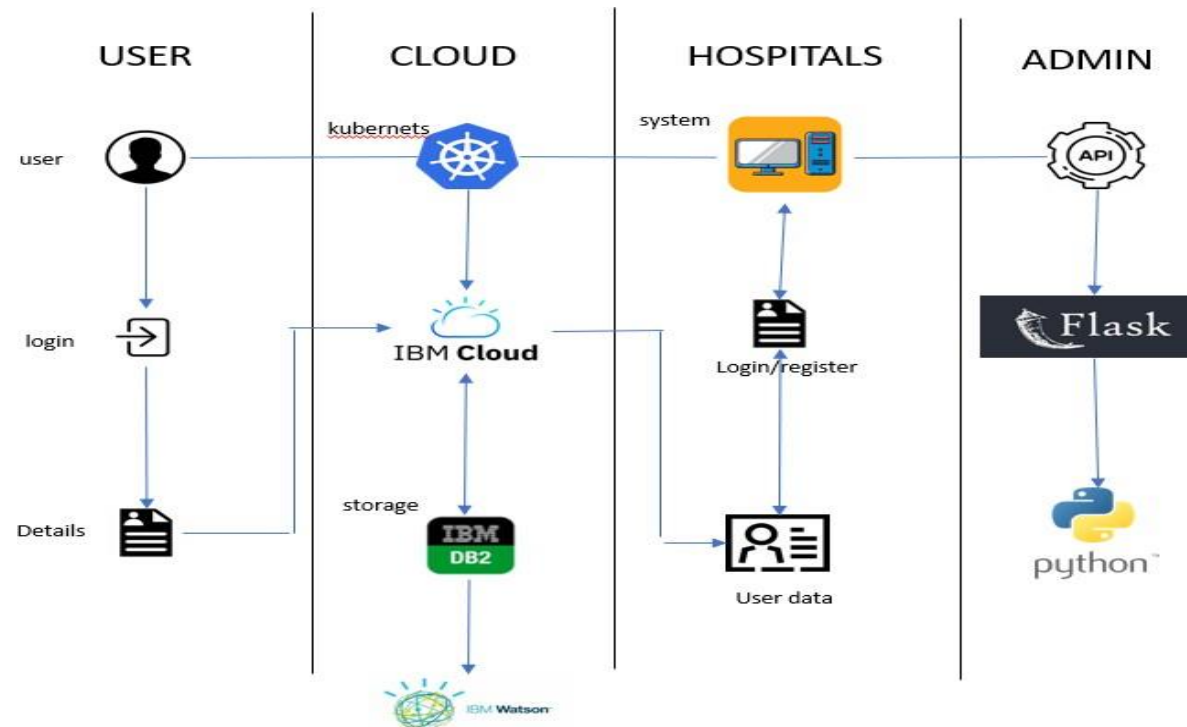| Date	15th October 2022
Team ID	PNT2022TMID08156
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S No	Component	Description	Technology
1.	User Interface	User access to the application through the mobile application.	HTML
2.	Application Logic-1	Creating an application interface	Python & Flask
3.	Application Logic-2	Creating an AI assistant that gives medical services to the user.	IBM Watson Assistance
6.	File Storage	Files are stored in the local storage and stored in the cloud.	IBM Block Storage or Other Storage Service or Local Filesystem
7.	External API-1	Use this REST API to manage locations. Get all locations. URI, /admin/resources/locations. Method, GET.	IBM Location REST API
8.	Deep Learning Model	Creating an algorithm to calculate case information provides by the hospitals.	Object Recognition Model, etc.
9.	Infrastructure (Cloud)	IBM Cloud App Configuration is a centralized feature-management and configuration service on IBM Cloud.	IBM Cloud Foundry & Kubernetes

Table 2: Application Characteristics:

S No	Characteristics	Description	Technology
1.	Open-Source Frameworks	There are no open-source frameworks in this application.	Python
2.	Security Implementations	Blockchain technology is used for Security implementation its private framework protects all data.	Blockchain
3.	Scalable Architecture	Users are provided with medical services online and giving awareness to people by giving therapeutic medicines and monitoring user movements in pandemic zones and alerts before they are affected.	IBM Cloud
4.	Availability	Medicinal Recommendations, Test kits, Doctor suggestions, and Updated Contaminated zones are available in applications.	IBM Watson Assistant
5.	Performance	The geo-fencing algorithm is updated daily and shows the day-to-day updates of the contaminated zones.	Geofence