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

Date	31 October 2022
Team ID	PNT2022TMID53276
Project Name	Project – Early Detection Of Chronic Kidney Diseases 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

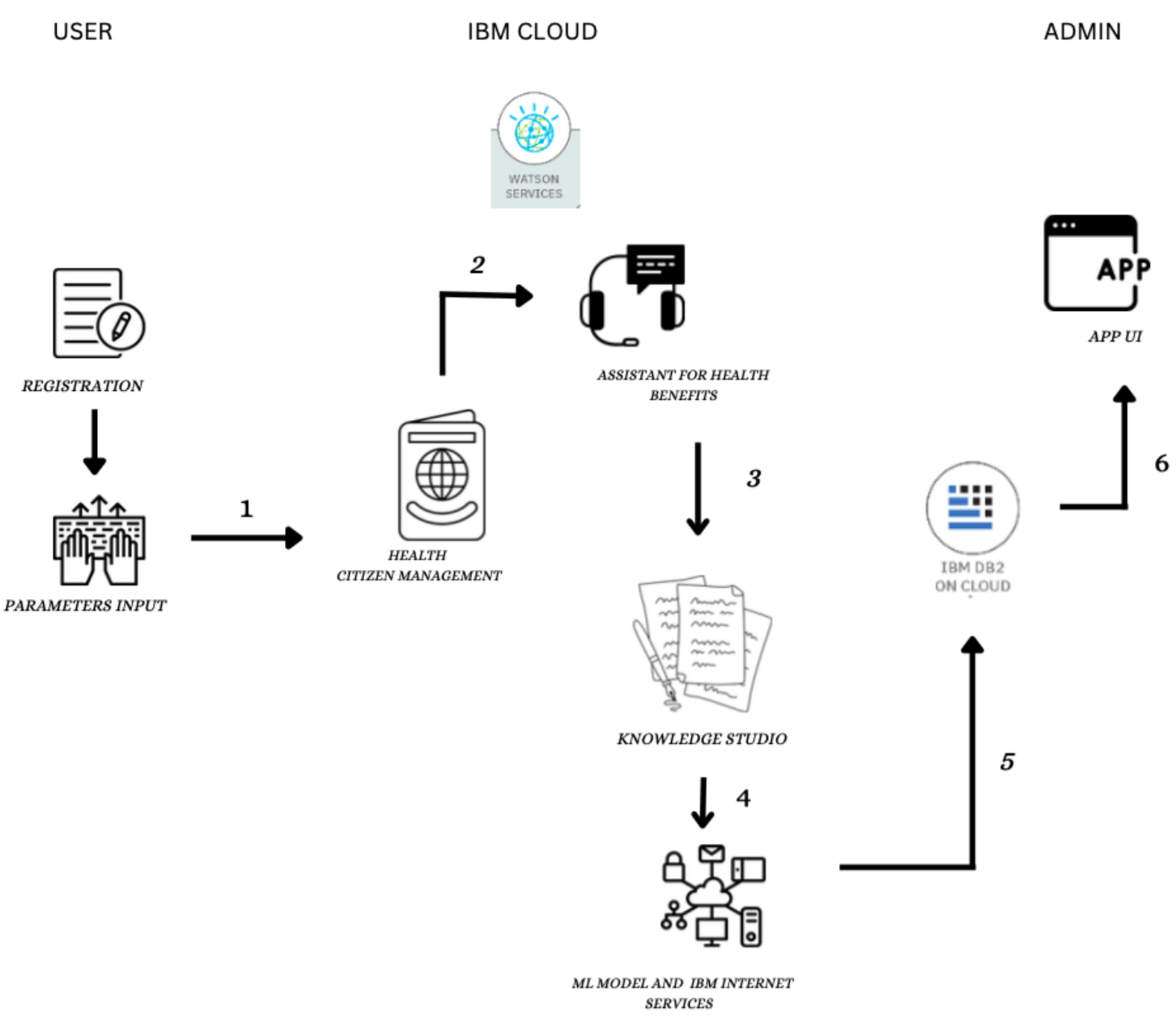
USER
IBM CLOUD
ADMIN
WATSON SERVICES
APP
APP UI
2
REGISTRATION
ASSISTANT FOR HEALTH BENEFITS
3
6
1
HEALTH CITIZEN MANAGEMENT
IBM DB2 ON CLOUD
PARAMETERS INPUT
KNOWLEDGE STUDIO
5
4
ML MODEL AND IBM INTERNET SERVICES

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application for example UI for the app	HTML, CSS, JavaScript
2.	Application Logic-1	Users register and sign up for the website with their personal details	HTML forms
3.	Application Logic-2	Users input parameters in order to predict the disease using the application.	Machine Learning With python
4.	Application Logic-3	Results of the predicted diseases are updated for the users to see	Python
5.	Database	User data is stored in relational database	MySQL
6.	Cloud Database	IBM Cloud is used for Database services	IBM DB2
7.	File Storage	Using google accounts, users can register	Gmail API
8.	Machine Learning Model	Chronic Kidney Disease prediction using different input variables	Recognition Model, etc.
9.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python is the open source framework that is used to build the model for machine learning	Python, Numpy, Flask etc
2.	Scalable Architecture	The three tier architecture with a separate user interface, application tier and data tier allows for easy scalability.	IBM Watson Studio

S.No	Characteristics	Description	Technology
3.	Availability	As it is deployed on the cloud, It is easily accessible.	IBM Cloud
4.	Performance	The performance of the website is enhanced with security.	IBM Cloud Internet Services