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

Date	23rd October 2022
Team ID	PNT2022TMID14215
Project Name	Analytics for Hospital Health Data
Maximum Marks	4 Marks

Technology Architecture:

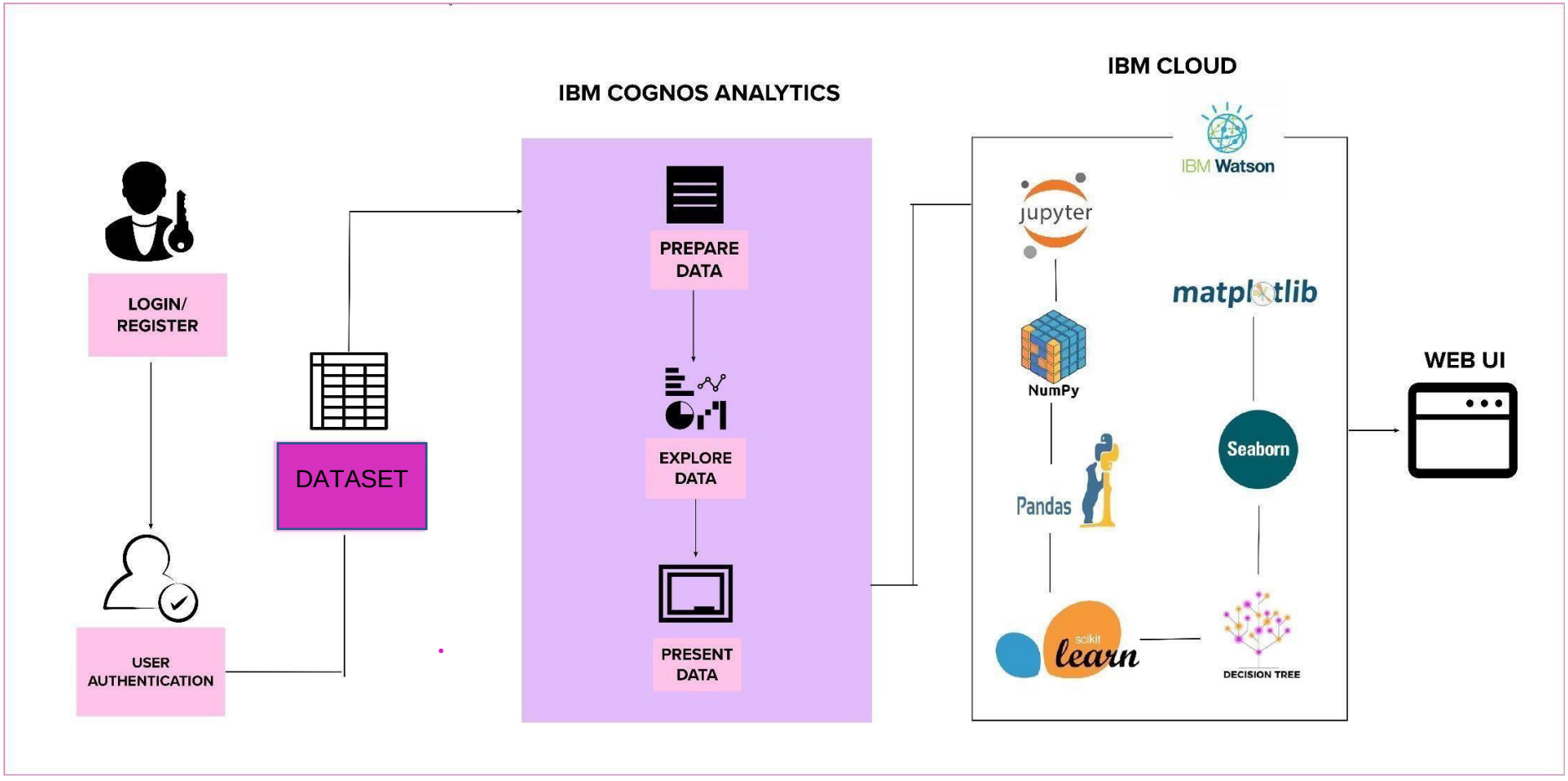

Table-1: Components & Technologies:

S.No.	Component	Description	Technology
1.	User Interface	User interacts with the application using IBM Cloud, which is used to analyze the dataset.	IBM Cloud
2.	Application Logic	The logic is to obtain useful insights about the Patient details of the Hospital.	Python
3.	Dataset	It contains the details about the Hospital Data	Dataset from IBM
4.	Cloud Database	It is used to store all the datasets.	IBM Cloud Pak for Data
5.	Visualization	It is used to prepare, explore and present the data in the form of charts and graphs.	IBM Cognos Analytics
6.	Machine Learning Model	It allows the user to feed a computer algorithm, an immense amount of data and have the computer analyse and make data-driven recommendation and decision based on only the input data.	Model for Hospital Health(if Required)
7.	Infrastructure	It provides the platform for deployment and services.	Kubernetes

Table-2: Application Characteristics:

S.No.	Characteristics	Description	Technology
1.	Open-Source Frameworks	A software for which the original source code made freely available and may be redistributed and modified according to the requirements of user.	Python, Google Colab/ Jupyter
2.	Security Implementations	IBM Cloud Application provides security features that are in addition to many of the components identified in the security framework.	IBM Cloud Pak for Security

S.No.	Characteristics	Description	Technology
3.	Scalable Architecture	Python is a programming language that developers can use to do all the scaling work. To improve scalability, enable or disable server run by administrator to balance the load for a given computer by request type.	Python, IBM Cognos
4.	Availability	Availability is the ability of a system to withstand or recover from exceptional situation. The Google Colab/ Jupyter is interactive computing platform. It can support coding, visualisation, etc.	Google Colab/ Jupyter
5.	Performance	This is a fundamental step if we need to achieve the greatest benefit with the least amount of work. Designing for capacity means determining the hardware needed for your system to perform well under its workload.	Python