Project Design Phase – II
Technology Architecture
(Tech Stack to be used in Proposed Solution)

Date	15 October 2022
Team ID	PNT2022TMID23310
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dashboard
Maximum Marks	4 Marks

Technology Architecture:

The deliverables shall include the below Technological Architectural Diagram and information as per Table – 1 and Table – 2.

Technology Architecture Diagram:

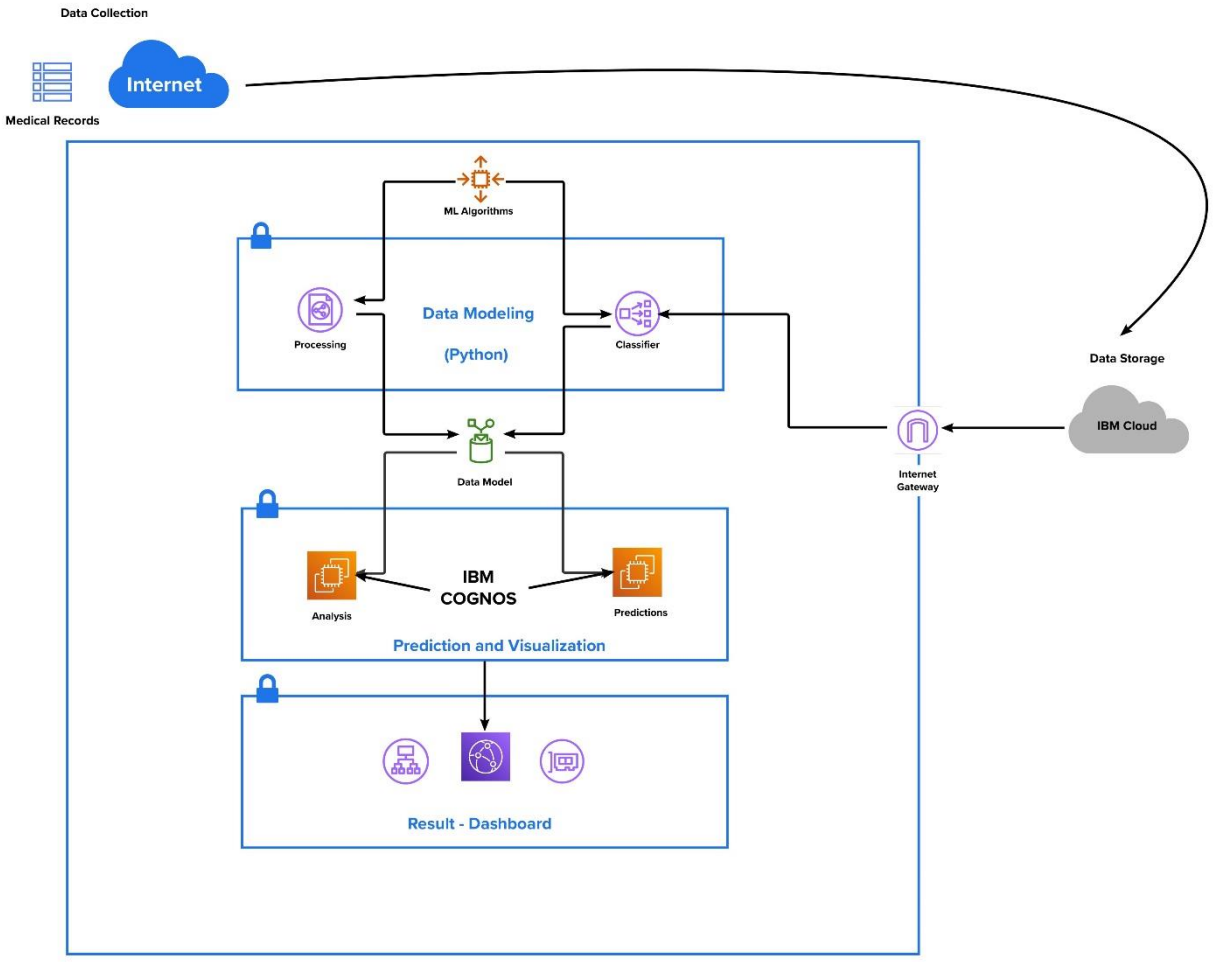

Figure 1: Technology Architecture of the heart disease prediction dashboard

Table – I: Technology to be used and Components

S. No.	Component	Description	Technology to be used
1	Data Collection	Data is gathered from a variety of sources, especially those that specifically cater to real-world data.	Internet
2	Data Storage (Application Logic - I)	The data is obtained in the table format.	Excel/ CSV – IBM Cloud
3	Data Storage (Application Logic -II)	The data is preserved in files and folders and is displayed in the same manner to both the system that stores it and the system that retrieves it.	IBM Watson Assistant, Local File System
4	Machine Learning Model	Using just the known past of goal values, machine learning techniques are utilized to forecast target values. This is used to forecast future requirements.	SVM, DNN, KNN using Python
5	Analysis and Prediction	User required analysis to forecast the exploration	IBM Cognos Analytics
6	User Interface - Dashboard	A significant chance to affect user behavior and raise retention rates.	IBM Cognos Analytics

Table – II: Application Characteristics

S. No.	Characteristics	Description	Technology to be used
1	Security and Privacy	Introduce a technique to protect privacy in ML with an emphasis on minimising runtime and communication overhead. A threat model for ML that takes into account the rise in ML-related security and privacy issues to be recognized.	IBM Cognos Analytics
2	Availability	Ensuring the data is available in the desired platform	IBM Cognos Analytics
3	Performance	The data is preserved in files and folders and is displayed in the same manner to both the system that stores it and the system that retrieves it.	IBM Cognos Analytics
4	Testability	Testing the outcome of ML systems to improve software testing strategies.	IBM Cognos Analytics
5	Reliability	Looking at the reliability of individual ML predictions, focusing on reliability estimation	IBM Cognos Analytics