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

Date	28 October 2022
Team ID	PNT2022TMID23339
Project Name	Project – Visualizing and Predicting of heart disease using a interactive dashboard
Maximum Marks	4 Marks

Technical Architecture:

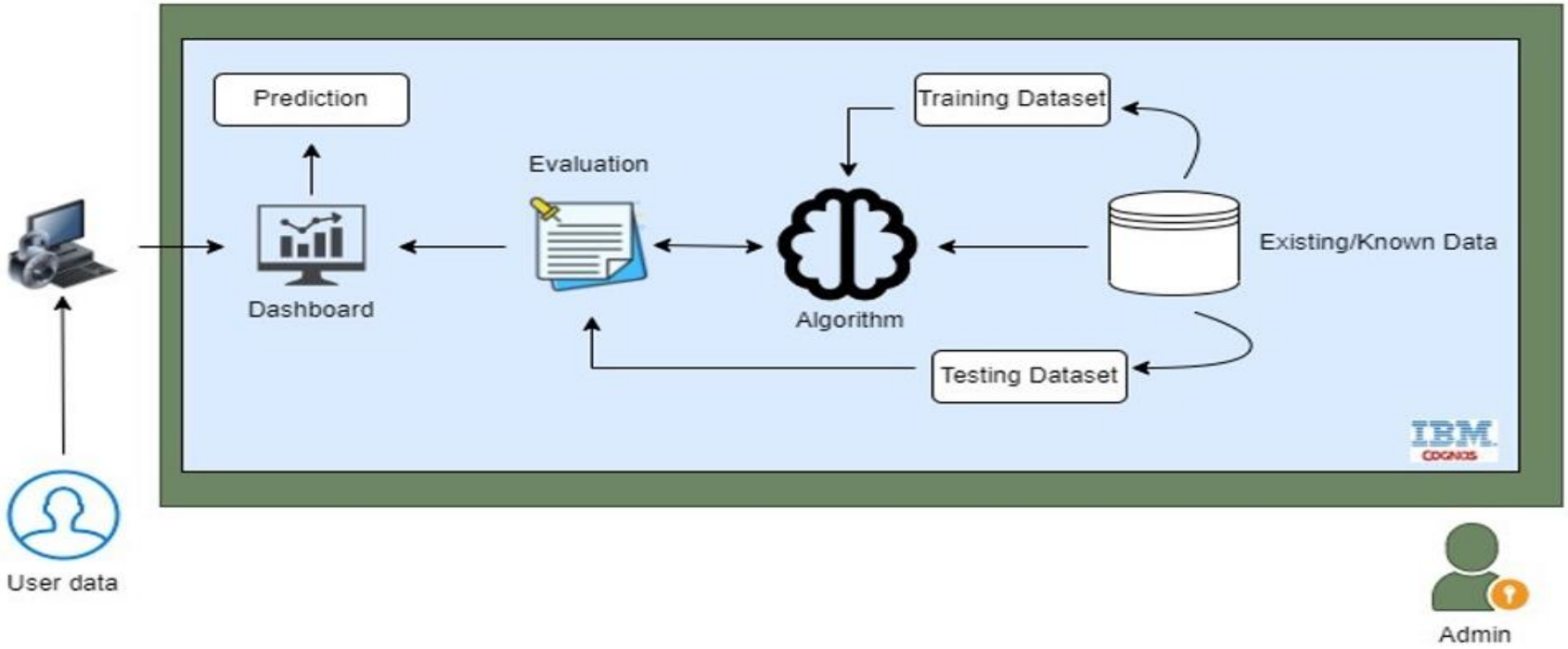

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Here user will interact with Mobile application and Web UI etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	User (Application Logic-1)	First and foremost the user will identify the problem by feeding the data to the interactive dashboard, Thus the data is processed(Analysing, Grouping or Clustering of the data) and fed to the next stage.	Json/Csv,BigQuery,Sheets,Java / Python
3.	Cloud (Application Logic-2)	Using IBM DB2 for storing the predefined data sets, deploying the application to cloud foundry and valid solutions on cloud.	IBM Cloud service
4.	Admin (Application Logic-3)	Here the entire process is managed by admin like review the intents, entities & dialog and some other feature like autocorrection, irrelevancy detection etc.	IBM services
5.	Database	The data base is built, deployed and accessed in the cloud environment, it may be public, private, or hybrid cloud	MySQL, NoSQL, etc.
6.	Cloud Database	Helps to organize, store and manage data within an organization	IBM DB2, IBM Cloudant etc.
7.	File Storage	Files are stored and managed independently of compute instances.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	We use the data and services where it is unique for each and every user	IBM API services etc.
9.	External API-2	We are using the third party developers data or services.	Aadhar API, etc.
10.	Machine Learning Model	Quite helpful approach was used to regulate how the model can be used to improve the accuracy of prediction of heart disease in any individual	Logistic regression and KNN Model, etc.

11.	Infrastructure (Server / Cloud)	Used for Application Deployment on Local System / Cloud Local Server Configuration: Open server, denwer provides wide range of server software with power capabilities. Cloud Server Configuration : Element that they can interoperate and communicate.	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Here we just use the frameworks for developing an application which is openly available.	Flutter, ionic, Linux, django etc
2.	Security Implementations	List of all the security(source code encryption, security check)/ access controls implemented, use of firewalls etc.	Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Adapt according to the user demand and offer best performance.	Architect →prototype → deployment of app
4.	Availability	Eliminate of single point of failure to enable app to continue to operate even if one of the IT components depends on server, fails.	Uses load balancer, DNS changes
5.	Performance	Design consideration of performance, how responsive the app is to the end user(Use of CDN's and cache)	Balanced Scorecard, Baldrige, lean and studer etc