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

Date	15 October 2022
Team ID	PNT2022TMID43179
Project Name	Project - Analytics for Hospitals' Health-Care Data
Maximum Marks	4 Marks

## TECHNICAL ARCHITECTURE

**USER** 



L M/SQoup

Dashboard IBM COGNOS



IBM CLOUD



Patient L OS. lieahh reports.

Oversar

Apply Learning Algorithms

Logistic Regression - Decision Tree
Gradient Boosting - Random Forest

Accuracy
F1 Score

ADORN



Modifying existing data

Hospital Database

View dataset

## **Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM Cloud
6.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
7.	External API-1	Purpose of External API used in the application	Aadhar API,etc.
8.	Machine Learning Model	Purpose of Machine Learning Model	Regression Model,etc.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry,etc.

## **Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryption,Firewall,Antivirus
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Microservices)	Supports higher workloads
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	High availability enables your IT infrastructure to continue functioning even when some of its components fail
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	A field of practice that uses various tools, processes, and ideas in a scientific manner to improve the desired outcomes of individuals and organizations.