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

Date	24 September 2022
Team ID	PNT2022TMID40423
Project Name	Detecting Parkinsons Disease Using Machine Learning

Technical Architecture:

The deliverable shall include the technological stack as well as the required details in both the tables.

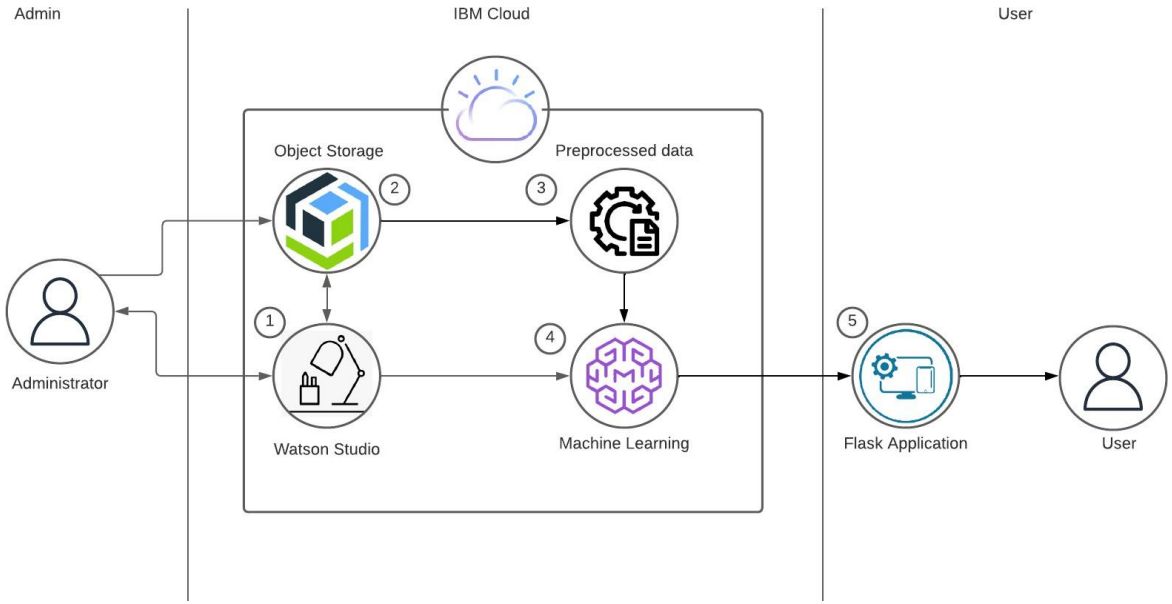

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with theapplication e.g. Web UI	HTML, CSS, Python flask.
2.	Application Logic-1	Register and Login page	HTML, CSS, Python flask.
3.	Application Logic-2	Home Page	HTML, CSS.
4.	Application Logic-3	Test vital page	HTML, CSS, Python flask.
5.	Database	Data Type, Configurations, etc.	MySQL.
6.	Cloud Database	Database Service on Cloud	IBM Database.
7.	File Storage	File Storage requirements	IBM Cloud Object Storage
8.	External API-1	Purpose of External API used in the application	IBM API Connect.
9.	External API-2	Purpose of External API used in the application	NIL
10	Machine Learning Model	Train the classification model using the Random forest classification algorithm.	IBM Watson Studio.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud.	Local Server Configuration: Local System. Cloud Server Configuration:IBM Watson

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask, Jupyter Notebook,Tensorflow, andPython libraries.
2.	Security Implementations	List all the security/access controlsimplemented, use of firewalls, etc.	Through Password, Email Confirmation.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Python Libraries.
4.	Availability	Justify the availability of applications (e.g. use of load balancers, distributed **servers, etc.)**	IBM Watson MachineLearning.
5.	Performance	Design Considerations for the performance of theapplication (number of requests per sec, use of Cache, use of CDNs), etc.	Flask.