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

Date	03 October 2022
Team ID	PNT2022TMID22047
Project Name	Project - Detecting Parkinson's Disease using Machine Learning.
Maximum Marks	4 Marks

Technical Architecture:

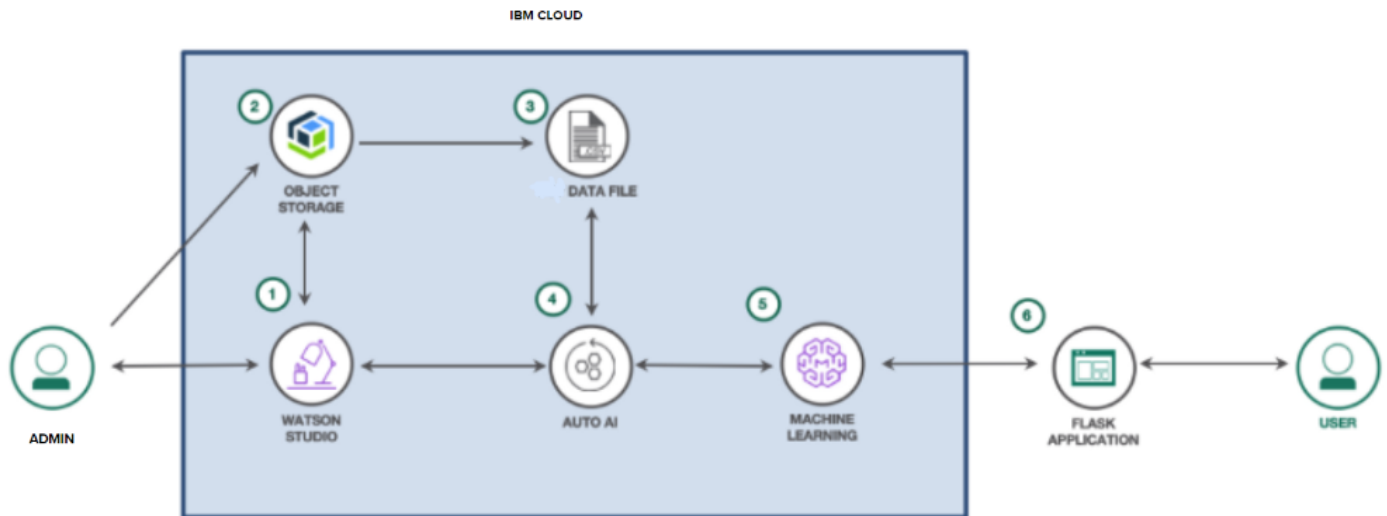The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2.

Table-1: Application Components:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application 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, and Python libraries.
2.	Security Implementations	List all the security/access controls implemented, use of firewalls, etc.	Through Password
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 Machine Learning.
5.	Performance	Design Considerations for the performance of the application (number of requests per sec, use of Cache, use of CDNs), etc.	Flask.