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

Date	03 October 2022
Team ID	PNT2022TMID11558
Project Name	Project - Detecting Parkinson's Disease using Machine Learning

Technical Architecture:

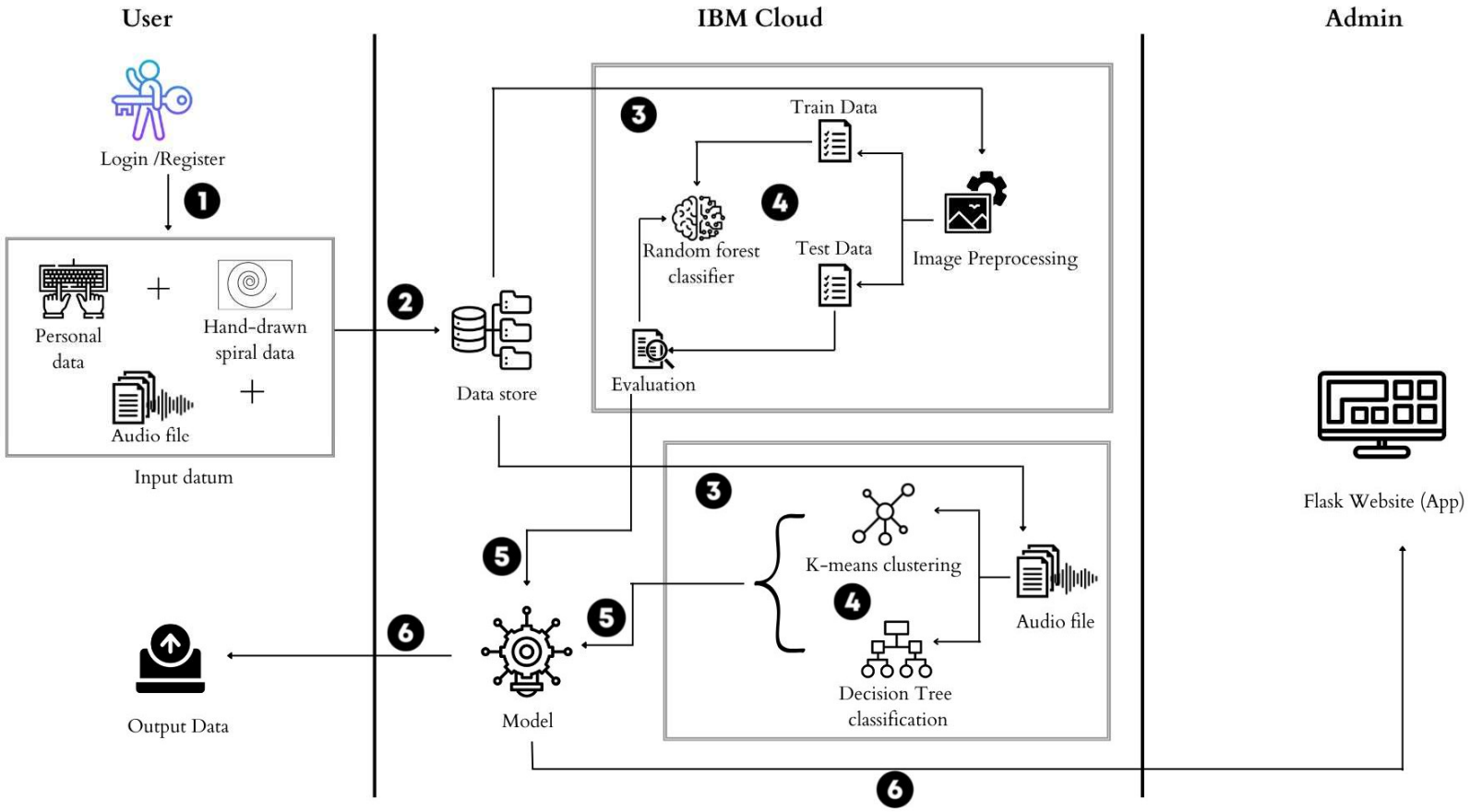

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, Flask.
2.	Application Logic-1	Register and Login page	HTML, CSS, Flask.
3.	Application Logic-2	Home Page	HTML,CSS
4.	Application Logic-3	Personal data , Requried Input and Output , Suggestion pages	HTML, CSS, Flask.
5.	Database	Data Type, Configurations etc.	MySQL.
6.	Cloud Database	Database Service on Cloud	IBM DB2.
7.	File Storage	File storage requirements	Local Filesystem
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	-
10.	Machine Learning Model	Purpose of Machine Learning Model	Random forest Algorithm , K-means Clustering , Decision Tree Classification Algorithm,etc.
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, Email Confirmation.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Python Libraries
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Watson
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Flask