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

Date	14 October 2022
Team ID	PNT2022TMID03453
Project Name	Project – Detection of Parkinson's Disease
Maximum Marks	4 Marks

Technical Architecture:

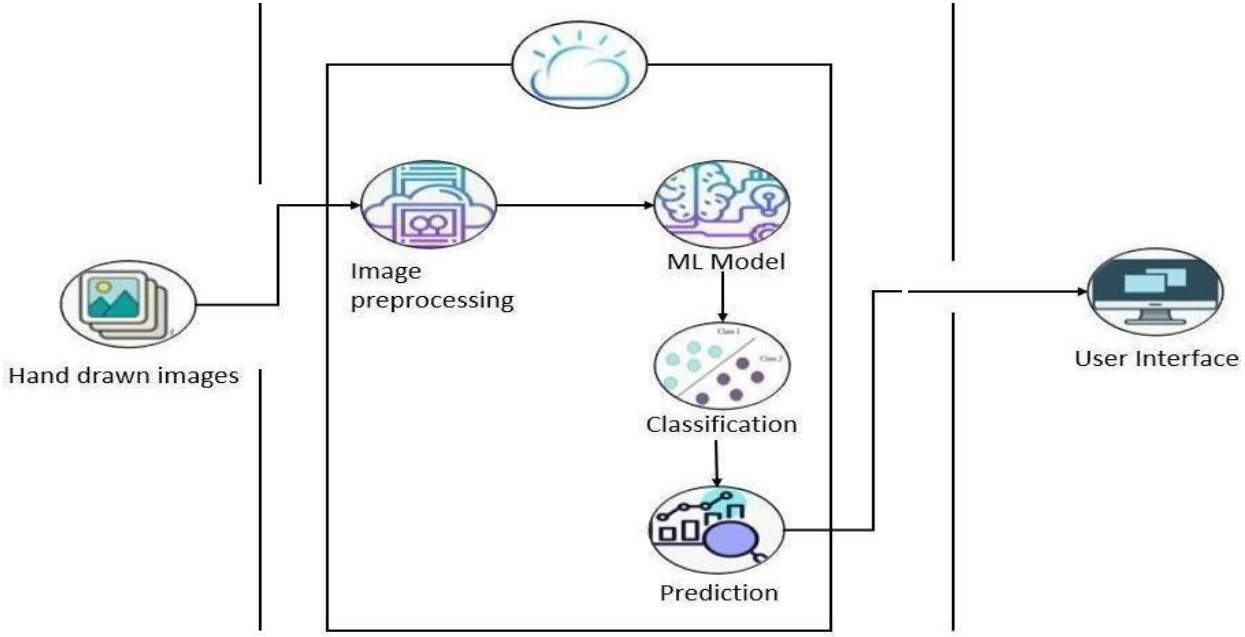

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface feature	How user interacts with application e.g., Web UI	HTML, CSS, JavaScript, Firebase (Web techniques)
2.	Application Login	-	React and Firebase
4.	Data Analysis	Data preprocessing and machine learning	Data collection and preprocessing, Exploratory Data Analysis (EDA), Data visualization
6.	Machine Learning	Important methods of Machine Learning	Data mining – Regression, Classification and Clustering
7.	Machine learning methods	Data mining	Support Vector Machines (SVM)
8.	Artificial Intelligence	Computer vision to detect the Parkinson's disease	Computer vision with OpenCV
9.	Web application	Alternative to python flask	React and alternative web framework technique

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Machine learning python Frameworks	List the open-source frameworks used	Numpy, Pandas, metrics, XG boost, Python Flask (Web), Scikit learn (Sklearn), Tensor flow
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions, Decryptions
3.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Web applications (React , JavaScript, Firebase)