Project Design Phase-II
Data Flow Diagram & User Stories

Date	03 October 2022
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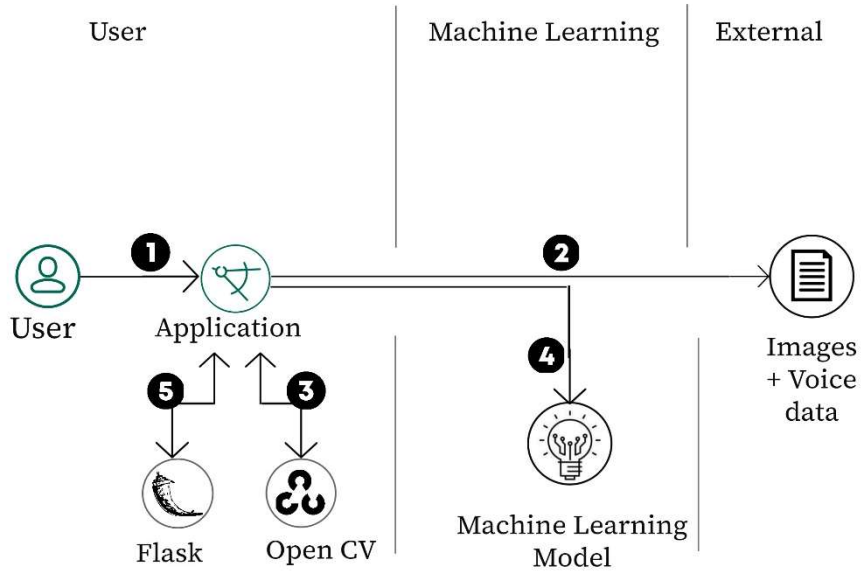
Project Name	Project - Detecting Parkinson's Disease Using Machine Learning.

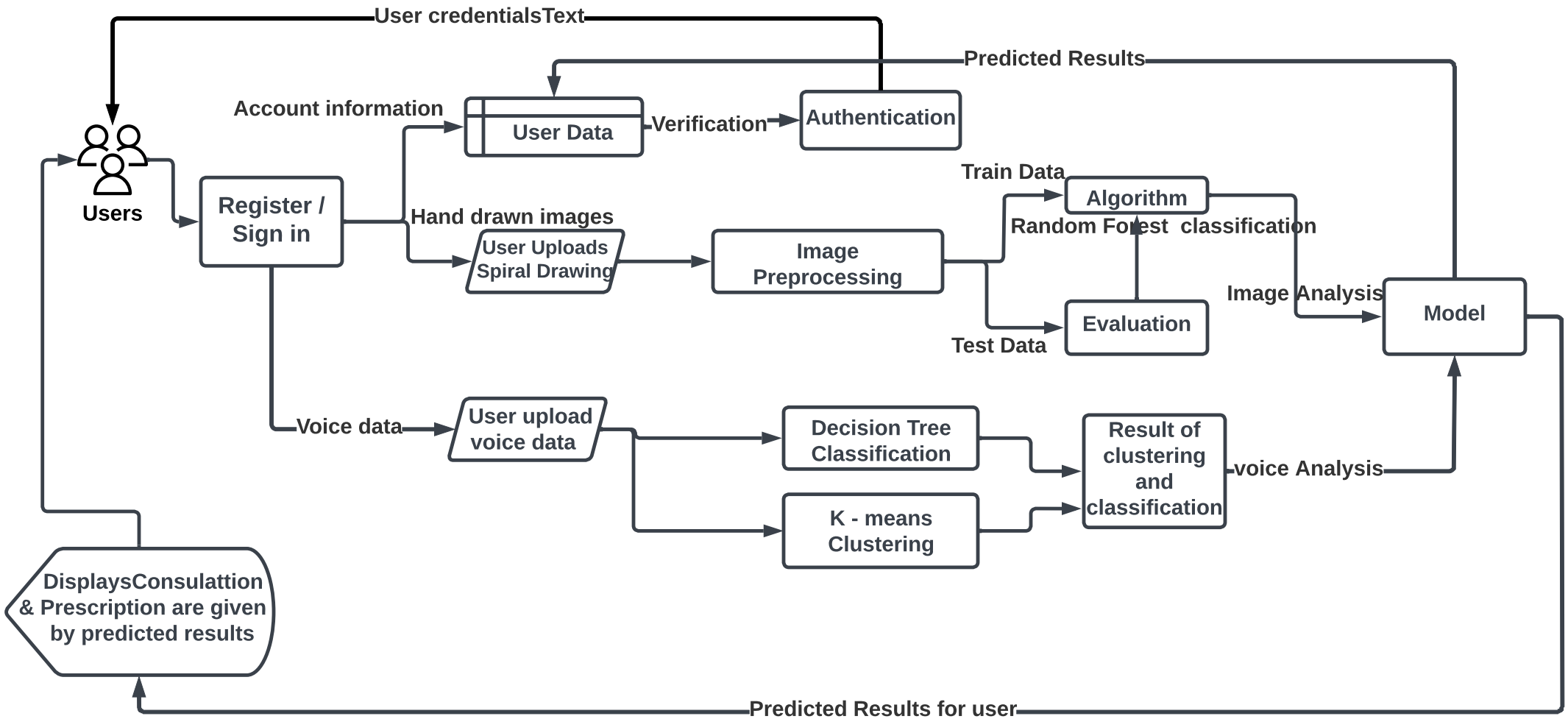
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: (Simplified)



1. The user configures credentials before starting the application.
2. The user selects which hand-drawn images to import and examine.
3. OpenCV is utilised for the image pre-processing.
4. The altered image is sent to the Random Forest Classifier.
5. To see the anticipated results, flask is used.


User credentialsText
Predicted Results
Account information
User Data
Verification
Authentication
Users
Register / Sign in
Hand drawn images
User Uploads Spiral Drawing
Image Preprocessing
Train Data
Algorithm
Random Forest classification
Evaluation
Test Data
Image Analysis
Model
Voice data
User upload voice data
Decision Tree Classification
K - means Clustering
Result of clustering and classification
voice Analysis
DisplaysConsulattion & Prescription are given by predicted results
Predicted Results for user

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my username, email, phone number, address, occupation, password and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Gmail or by Google or outlook	I can register for app by Google or outlook or Gmail	Low	Sprint-1
	Login	USN-4	As a user, I can log into the application by entering email & password	I can log into my account and check my details	High	Sprint-1
	Image Uploading and Processing	USN-5	As a user, I can upload the image to the application for the purpose of diagnosis	I can successfully upload the image from system images gallery.	High	Sprint - 2
	Identification/ Prediction	USN-6	As a user, I can verify with the application that the image is used for the prediction.	I can view the results of the prediction	High	Sprint - 2
	Voice Uploading (Classification & Clustering)	USN-7	As a user, I can upload the voice to the application for the purpose of diagnosis	I can successfully upload the voice from the system recorder/audio files	High	Sprint - 2
	Result Accuracy	USN-8	As a user, I can understand the accuracy of the prediction that the model has produced	I can see the accuracy withwhich the model has predicted.	Medium	Sprint - 3
	Medical Suggestions	USN-9	As a user, I would like to take further steps in treatment of the condition	I can see specialist clinics and medicines suggestions	High	Sprint - 3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Web user)	Identification/ Prediction	USN-10	As a user, I can use the application for preliminary analysis	I can view the results of the prediction with case details	High	Sprint - 2
	Obtaining the data	USN-11	As the medical examiner, I can retrieve the results and the input data	I can use download and use the predicted data along with the case details for proof.	Medium	Sprint - 4