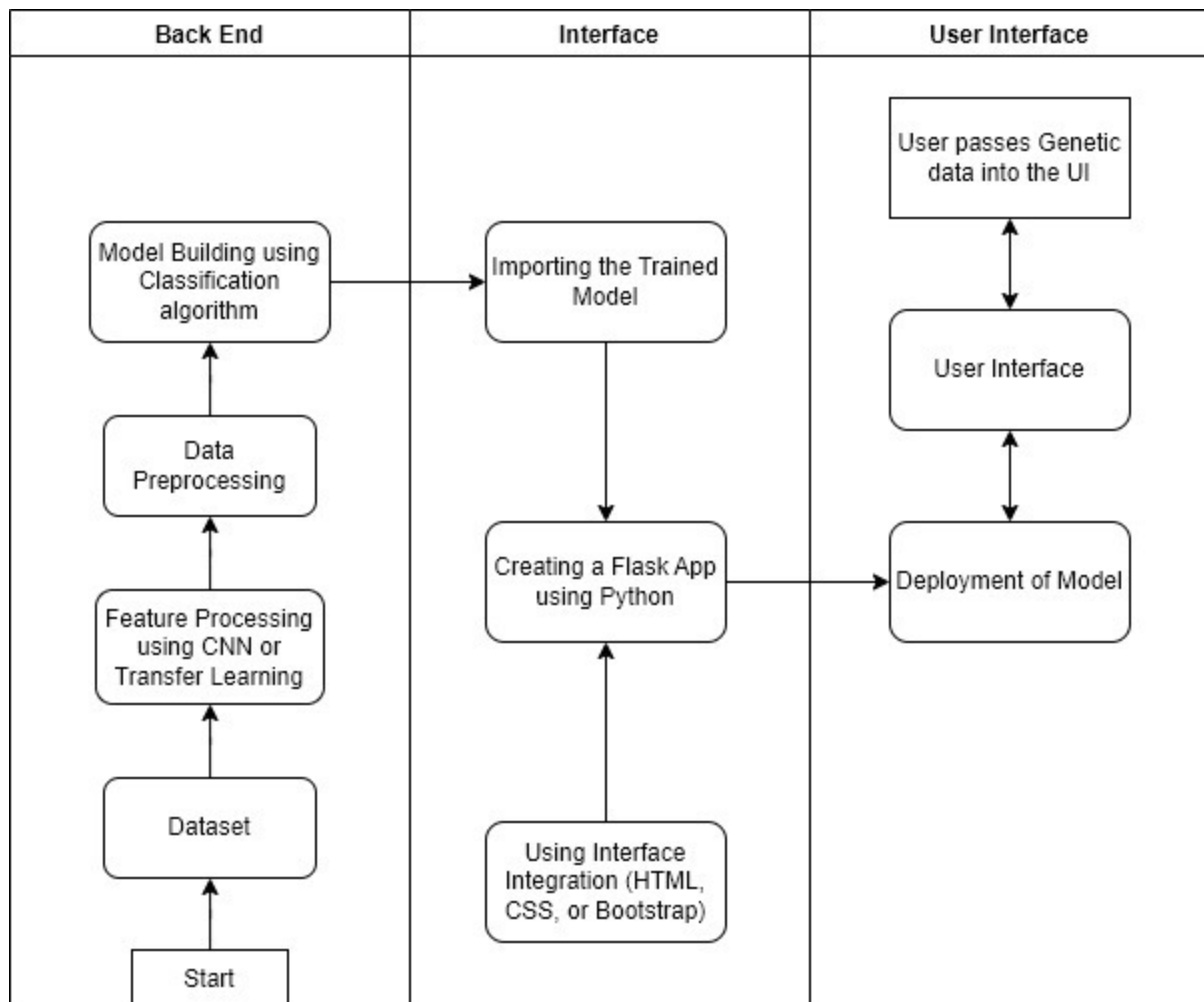


## Project Planning Phase Technology Stack (Architecture & Stack)

Date: -	27th October, 2023
Team ID: -	Team-593068
Project Name: -	Genetic Classification of Individuals using Machine Learning
Maximum Marks: -	4 marks

### Technical Architecture



**Table -1 Components and Technologies**

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, MongoDB
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	23andMe API, etc.
9.	External API-2	Purpose of External API used in the application	AncestryDNA API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Scikit-learn, TensorFlow, PyTorch
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

**Table 2 Application Characteristics**

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework

2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

## **References**

<https://www.leanix.net/en/wiki/ea/technical-architecture>

<https://app.diagrams.net/>

<https://www.mongodb.com/basics/technology-stack>