

Project Planning Phase-III Technology Stack (Architecture & Stack)

Date	27th october 2023
Team -Id	Team- 592529
Project Name	Disease prediction using Machine learning
Maximum Marks	4 marks

Technical Architecture

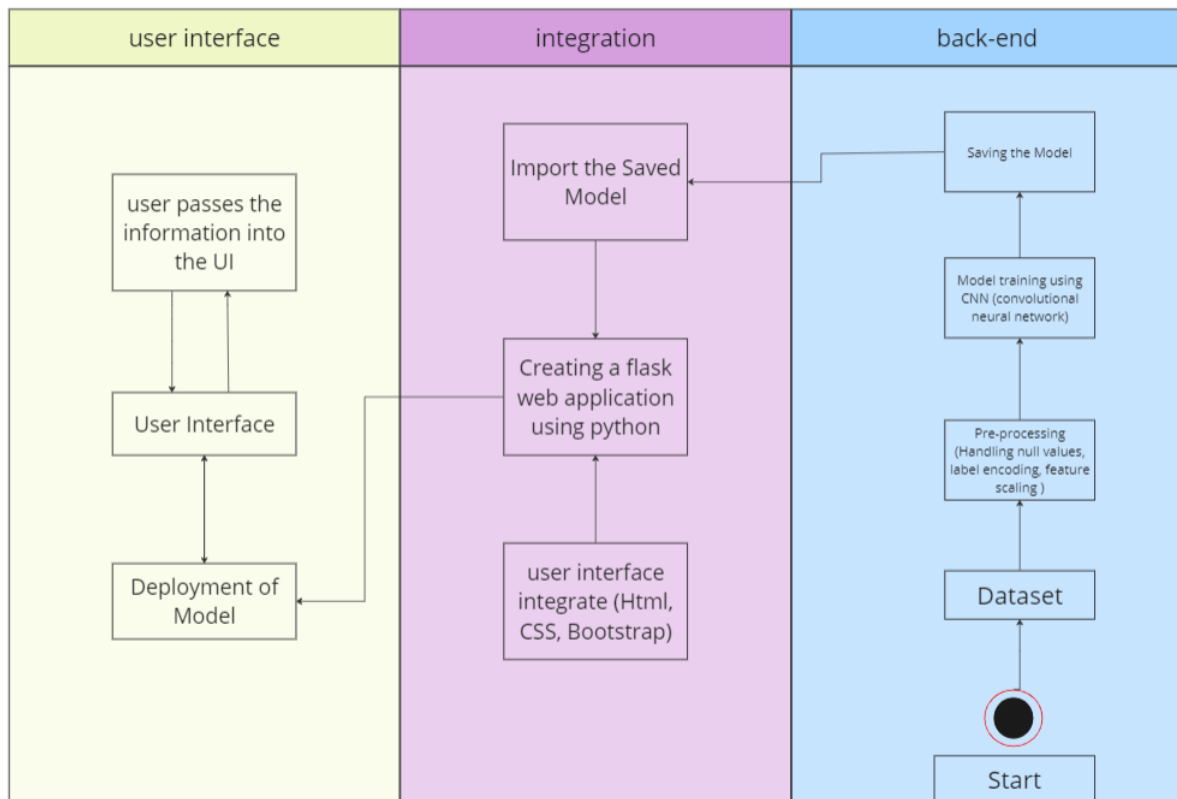


Table-1: Components & Technologies

S.No	Component	Description	Technology

1	User Interface	The user interface is the part of the app that users interact with.	We create the user interface using Flask for the back-end and HTML for the front-end, ensuring a user-friendly experience.
2	Application Logic	This is the core logic of our app for disease prediction.	We build the logic using Python, ensuring efficient symptom analysis and disease prediction.
3	Database	The database stores disease information and user interactions.	We use MySQL and NoSQL databases for data storage, making it accessible locally.
4	File Storage	File storage is essential for user data and reports.	We use local file storage for secure file management.
5	External APIs	External APIs provide additional data for better predictions.	We integrate local APIs to gather relevant information, enhancing disease predictions.
6	Machine Learning Model	Our machine learning model enhances disease prediction accuracy.	We deploy a custom machine learning model, specializing in object recognition, locally.
7	Infrastructure	Our app can be deployed locally or on a server.	We support local deployment without complex cloud services, ensuring simplicity and accessibility.

Table-2: Application Characteristics

S.No	Component	Description	Technology
1	Open-Source Frameworks	We use open-source frameworks to enhance our app's functionality.	We embrace open-source technologies to improve our application.

2	Security Implementations	Security measures protect user data and privacy.	Our security includes encryption methods, ensuring user data remains secure.
3	Scalable Architecture	Our architecture can handle more users as needed.	We design the app to be scalable locally as user demand grows.
4	Availability	We ensure our app is always accessible.	Our app maintains availability through strategies like load balancing and server redundancy, designed for local deployment.
5	Performance	We optimize performance for a smooth user experience.	Our performance enhancements include efficient request handling and content delivery, ensuring a responsive experience without complex CDN services.