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

Date	27/10/2023
Team ID	Team-593076
Project Name	Disease Prediction System using machine Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

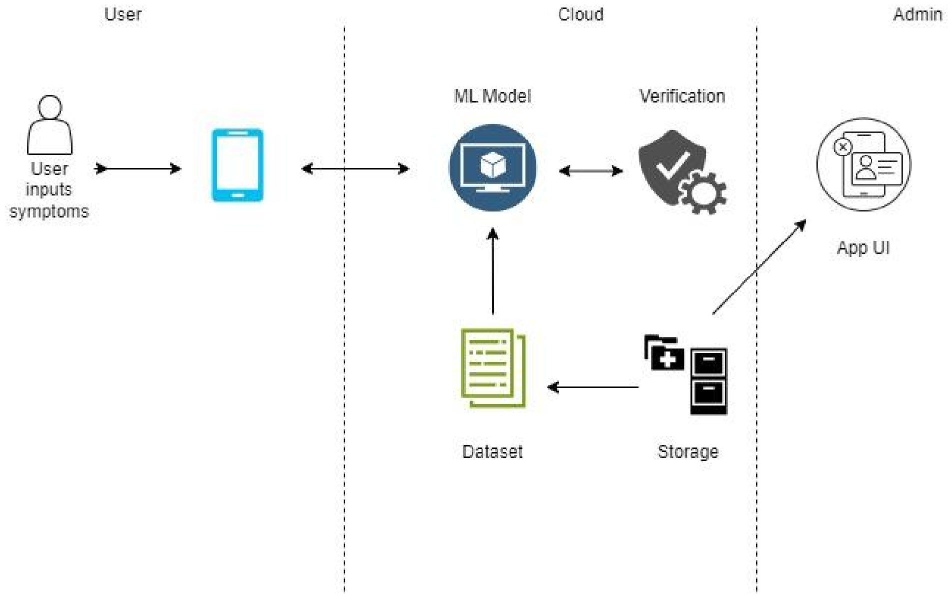

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI: User enters symptoms to the model using a web interface.	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Database	Dataset that can support models to classify 42 different diseases.	File Manager, MySQL
4.	File Storage/ Data	File storage requirements for storing the dataset	Local System, Google Drive
5.	Frame Work	Used to create a web application, and to integrate the frontend and backend.	Python Flask, Django
6.	Machine Learning Model	To classify diseases of different types	Support Vector Classifier,Random Forest Classifier
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python Flask is utilized as the framework to build the web application.	Python’s Flask framework
2.	Security Implementations	Our project employs OWASP’s best security practices, ensuring resilience.	OWASP Network and Application Firewalls
3.	Scalable Architecture	The 3-tier architecture, comprising the presentation tier, application tier, and data tier, allows for scalability at each tier, contributing to overall system scalability.	HTML, CSS and JS for UI Python for server side scripting and DBMS like MySQL for relational databases
4.	Availability	This project uses a combination of technologies and strategies. Load balancers such as HAProxy and Kubernetes for deployment are used.	Load balancers like HAProxy Kubernetes for deployment and scaling the application across serves
5.	Performance	Using efficient algorithms and data structures can significantly improve efficiency..Content Compression can also be used to suppress web content	CloudFlare to reduce latency