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

Date	9 November 2023
Team ID	Team-592127
Project Name	Deep Learning Model For Detecting Diseases In Tea Leaves
Maximum Marks	4 Marks

Technical Architecture:

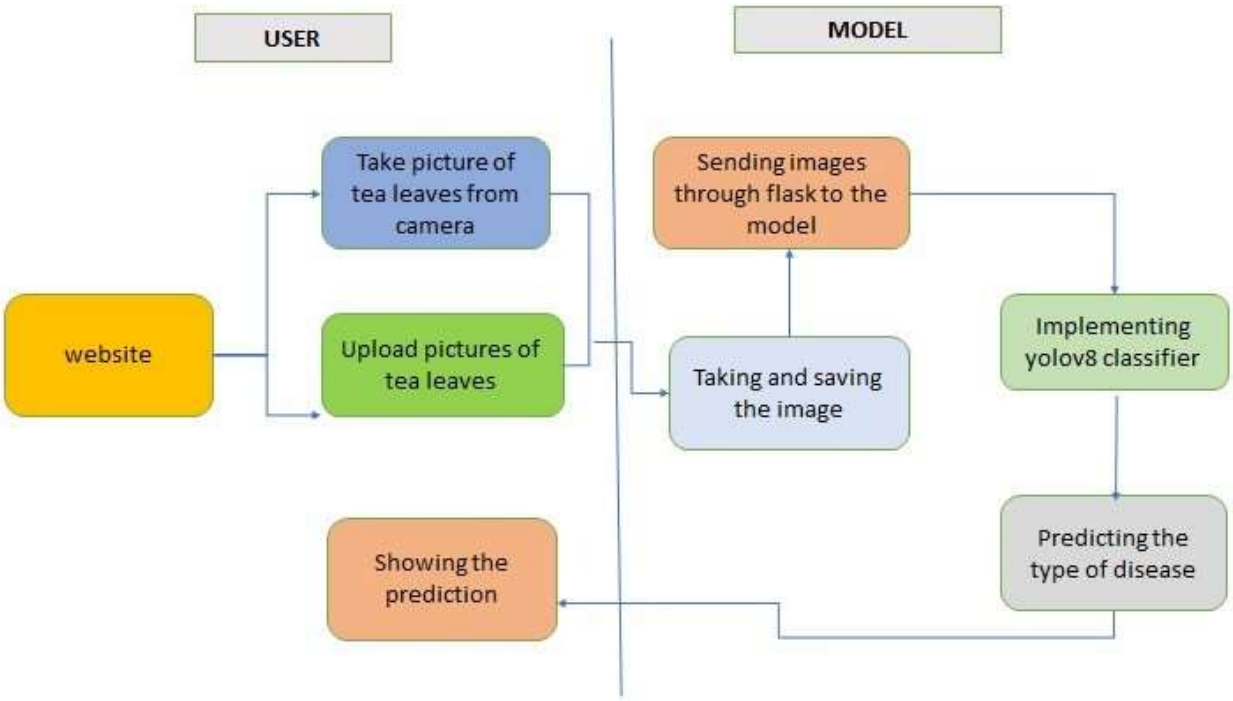

Table-1: Components & Technologies:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks refer to using software frameworks that are publicly accessible, can be modified.	TensorFlow, Ultralytis, Keras & Flask
2.	Security Implementations	Security implementations are essential to protect patient data and confidentiality of the image processing system. As this is a simple model it is not necessary of security implementations.	None
3.	Scalable Architecture	AWS Well-Architected/Azure Architecture provides a framework to help cloud architects build secure, high-performing, resilient, and efficient architectures.	AWS or Microsoft Azure
4.	Availability	Use of load balancers to distribute traffic, and geographically distributed servers to ensure high availability.	AWS or Microsoft Azure
5.	Performance	Performance of model involves ensures that application can handle a significant number of image processing requests per second, use of cache and CDN's efficiently.	Utilize hardware acceleration (GPU's)

Table-2: Application Characteristic

S.No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Building YOLOv8 classifier	Python
3.	Application Logic-2	Use of flask to connect from model to web application	Flask
4.	Application Logic-3	Use of Camera to capture Image	Camera
5.	Deep Learning Model	To Recognize the Pattern of the Image	YOLOv8
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System Local	VS-Code