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

Date	17 November 2023
Team ID	591850
Project Name	Deep Learning for Eye Disease Prediction
Maximum Marks	4 marks

Technical Architecture:

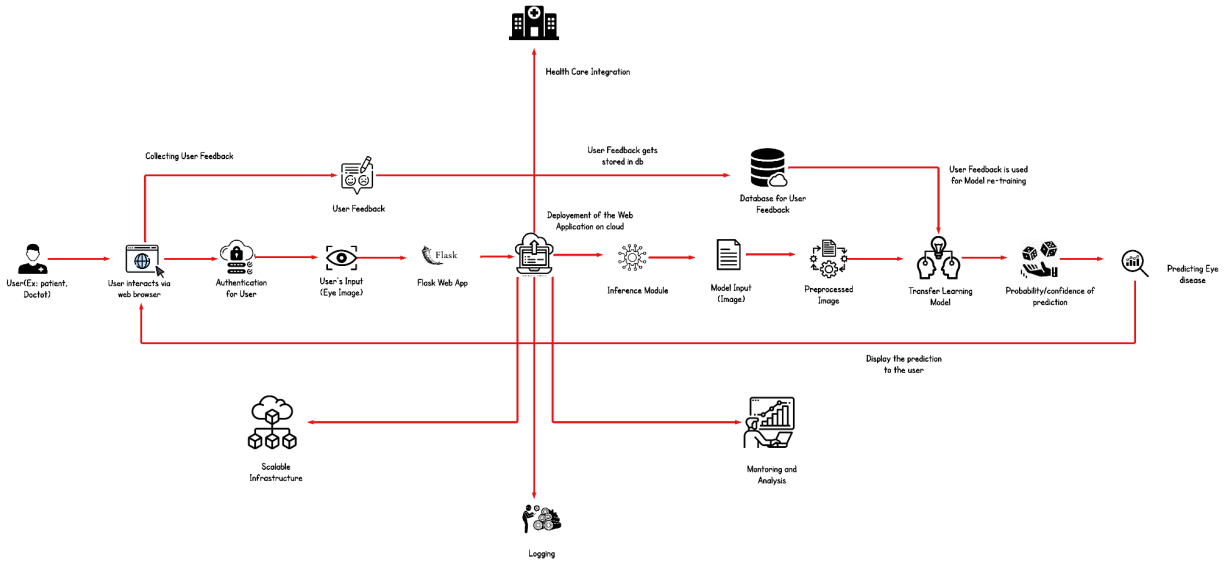

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Web Application UI	User interface for interacting with the application	HTML, CSS, JavaScript
2.	Flask Application	Backend logic for handling user requests and processing images	Python (Flask)
3.	Deep Learning Model	Model for predicting	TensorFlow, Keras

		eye diseases based on processed images	(VGG19, Transfer Learning Models)
4	User Authentication	Handles user login and session management	Flask Session Management
5	File Upload Handling	Manages image file uploads and saves them for processing.	Flask (file handling)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Security Implementations	Implements user authentication for login and session management	Flask Session Management
2	Scalable Architecture	Utilizes Flask for backend logic, allowing easy scalability	Flask (Microservices can be considered for scalability)
3	Availability	Ensures availability through Flask's handling of user requests and responses	Flask, HTTP Protocol
4	Performance	Manages file uploads and image processing efficiently to optimize application performance	Flask, TensorFlow, Keras
5	External Libraries	Uses external libraries for deep learning (TensorFlow, Keras) and Flask for web application development	TensorFlow, Keras, Flask