Technology Stack (Architecture & Stack)

Date	19 November 2023
Team ID	593035
Project Name	Deep Learning Model For Eye Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

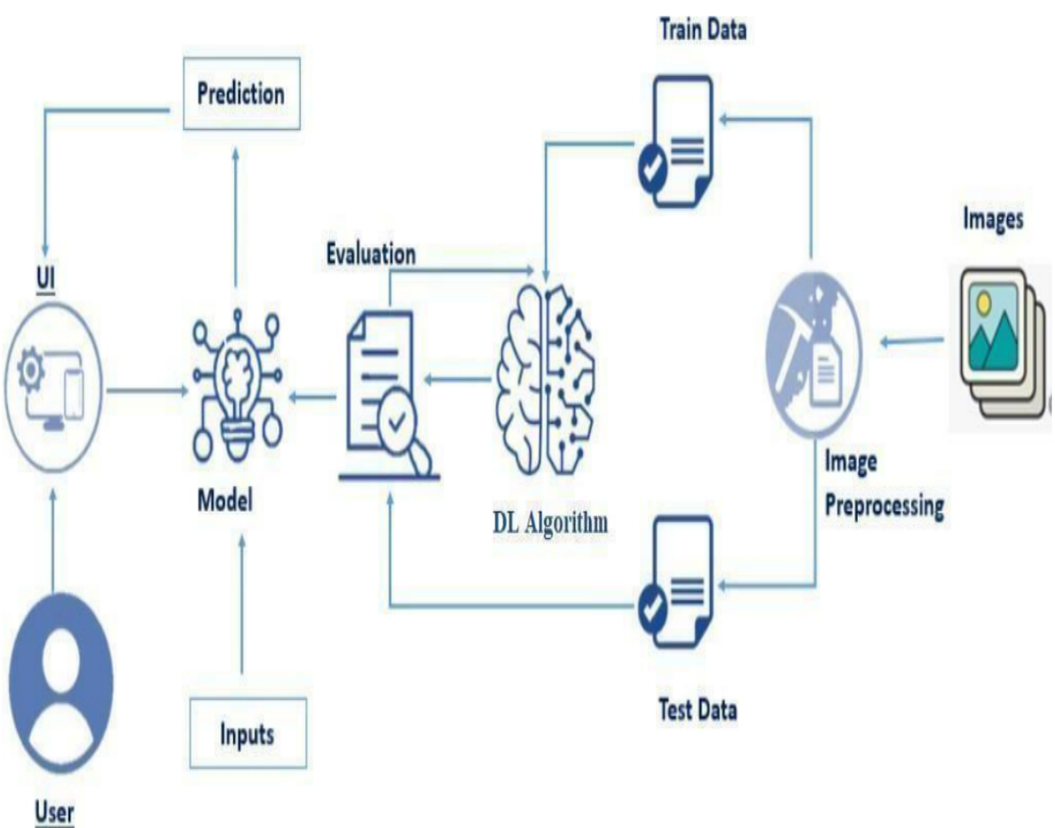

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web application, mobile app	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Deep learning model for eye disease prediction	Python, TensorFlow
3.	Application Logic-2	Image upload and processing	Python
4.	Application Logic-3	User registration, authentication, and management	Python, Flask
10.	Machine Learning Model	VGG19 deep learning model for eye disease prediction	TensorFlow, Keras.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	TensorFlow, Keras, Flask, , AngularJS/ReactJS	TensorFlow: Deep learning framework Keras: High-level neural networks API Flask: Web development framework AngularJS/ReactJS: JavaScript frameworks for building user interfaces
2.	Security Implementations	NIL	NIL
3.	Scalable Architecture	NIL	NIL

S.No	Characteristics	Description	Technology

4.	Availability	Load balancers	Localhost.
5.	Performance	Caching	The application will use caching to store frequently accessed data, reducing the load on the database and improving response times.

References:

https://www.mathworks.com/help/deeplearning/ref/vgg19.html#

https://towardsdatascience.com/convolutional-neura