PROJECT DESIGN PHASE II

Technology Stack (Architecture & Stack)

Date	03 October 2022
Team Id	PNT2022TMID34094
Project Name	Deep learning fundus image analysis for early detection of diabetic retinopathy
Maximum marks	4 marks

Technical Architecture:

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

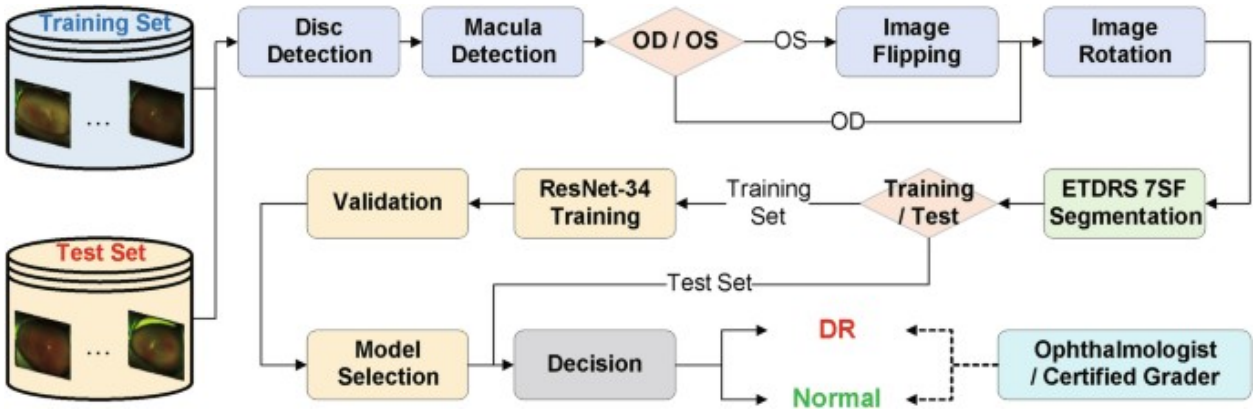

TABLE 1:

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML,CSS
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage

8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	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	List the open-source frameworks used	Google colab
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions, IAM controls
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	HTML, python
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	HTTP
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Cloudflare