Project Design Phase - 2

Technology Stack (Architecture & Stack)

Date	18 October 2022
Team ID	PNT2022TMID36211
Project Name	Deep Learning Fundus Image Analysis for Detection of Diabetic Retinopathy
Maximum Mark	4 Mark

Technical Architecture:

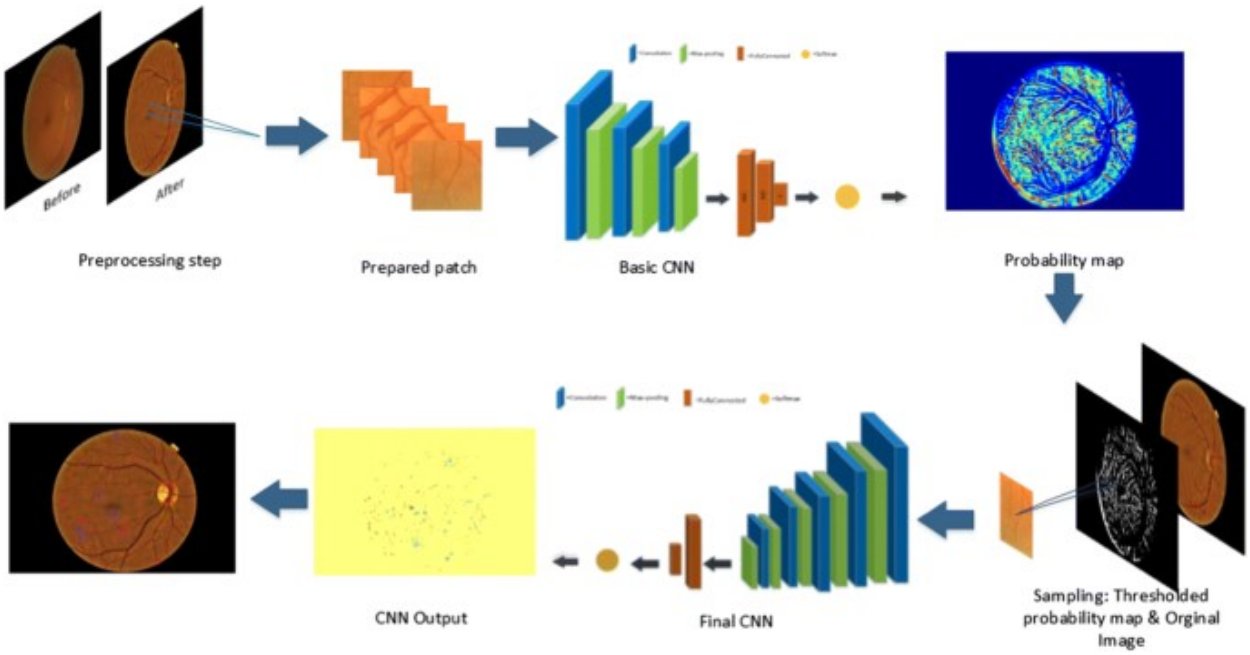

Table-1: Components & Technologies :

S.NO	Component	Description	Technology
1	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2	Application Logic–1	Logic for a process in the application	Java/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, NoSQL, etc.
6	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
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	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2	Security Implementations	List all the security/ access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3	Scalable Architecture	Justify the scalability of architecture (3-tier, Technology used Micro-services)	Technology used
4	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used