

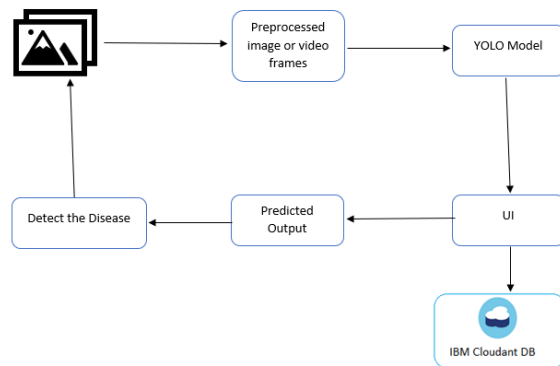
## PROJECT DESIGN PHASE II

### Technology Stack (Architecture & Stack)

Date	25 October 2022
Team ID	PNT2022TMID37917
Project Name	AI-Based localisation and classification of Skin disease with erythema.
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: Components & Technologies:**

#### Guidelines:

1. Get the image from the User.
2. Use Feature Extraction method for better Classification.
3. Use several best Algorithm techniques like CNN, ANN, KNN, SVM, etc... to get accurate results.
4. By testing and get compared with trained results it predicts and detect the diagram pattern.
5. Finally, the Machine learning will predict with more efficiency.

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 / 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	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, Micro-services)	Technology used

S.No	Characteristics	Description	Technology
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

### References:

- [1] Arifin, S., Kibria, G., Firoze, A., Amini, A., & Yan, H. (2012) "Dermatological Disease Diagnosis Using Color-Skin Images." Xian: *International Conference on Machine Learning and Cybernetics*.
- [2] Yasir, R., Rahman, A., & Ahmed, N. (2014) "Dermatological Disease Detection using Image Processing and Artificial Neural Network." Dhaka: *International Conference on Electrical and Computer Engineering*.
- [3] Santy, A., & Joseph, R. (2015) "Segmentation Methods for Computer Aided Melanoma Detection." *Global Conference on Communication Technologies*.