Project Design Phase ll

Technology Stack (Architecture & Stack)

Date	20 October 2022
Team ID	PNT2022TMID47686
Project Name	Project-AI based localization and classification of skin disease with erythema
Maximum Marks	4 Marks

Technical Architecture:

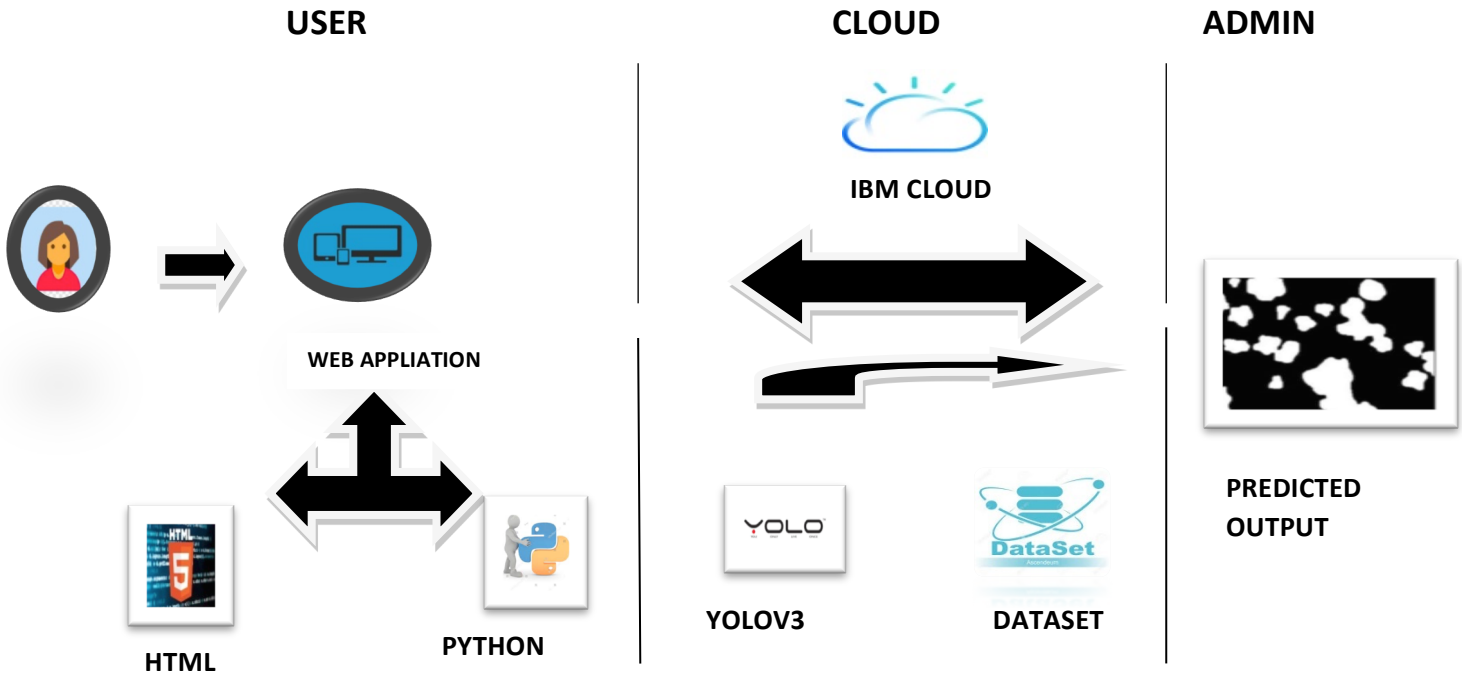

Table 1: Components & Technologies:

S.No	Components	Description	Technology
1.	User interface	User interact with web application.	HTML.
2.	Application Logic-1	Build HTML page for login, Registration, Prediction ,Logout.	Python,WSGI application.
3.	Application logic -2	YOLOv3 detector is real time object detection algorithm specify the object in image.	Python
4.	Application Logic-3	Computer vision can gain high understanding of images.	OpenCV, machine learning software.
5.	Database	Using chrome extension such as batch downloader where you can search and download image from chrome.	Fatkun Batch Downloader.
6.	Cloud Database	IBM Cloud Identity & Access Management enables you to securely authenticate users and control access to all cloud resources consistently.	IBM Bluemix cloud platform.
7.	File Storage	File storage requirements.	Local file system or other storage service.
8.	External API -1	Registration through email.	HTML page.
9.	External API-2	Confirmation via email.	E-mail
10.	Infrastructure	Data server has been	IBM Bluemix cloud

	(Server & Cloud)	installed to run as a service and deployed in IBM cloud instance.	platform.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open source frame work	Annotate image,VOTT.	Cloudant DB.
2.	Security implentation	Careful examine about choosing an image for detecting or uploading images of your damaged skin.	Encryption.
3.	Scalable Architecture	This method is ensured accurate information about patient skin disease.	Deep learning.
4.	Availability	Help to get correct treatment at a correct time which help patients to get heal in earlier stage.	Image processing.
5.	Performance	The trained model can predict an accurate result and took less time when compare to reality.	IBM Cloud.