Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID08278
Project Name	Project – AI-based localization and classification of Skin Disease using Erythma
Maximum Marks	4 Marks

Technical Architecture:

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

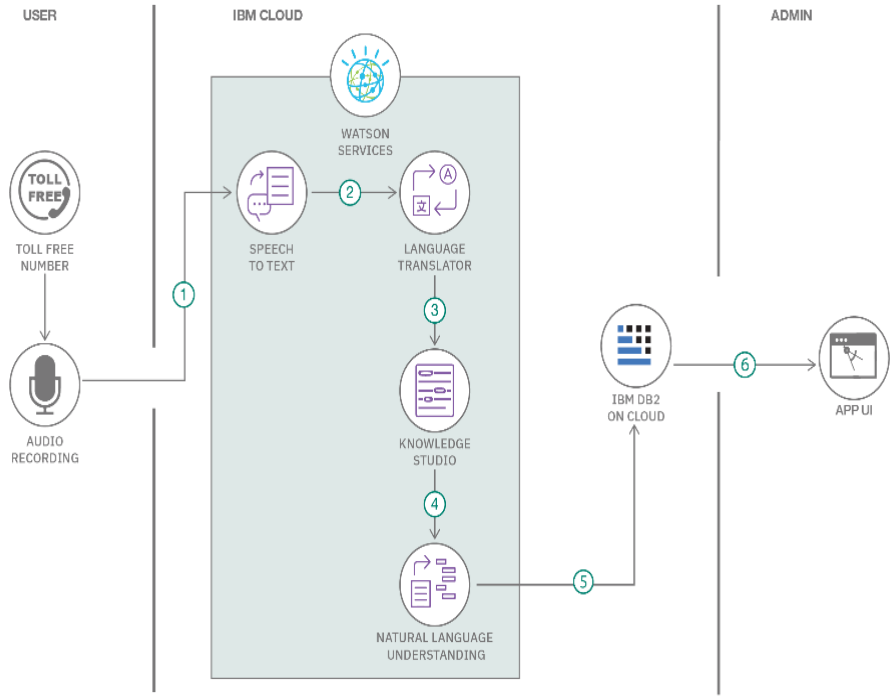

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application e.g. Web UI, Mobile App, Chatbot, etc.	HTML, CSS, JavaScript / Angular Js / React Js, etc.
2.	Application Logic-1	The logic for a process in the application	Python
3.	Application Logic-2	The camera captures and extracts the image and analyze the result	IBM Cloudant DB
4.	Application Logic-3	Extract the Report	Annotate images using Microsoft's Visual Object Tagging Tool (VoTT).
5.	Application Logic-4	Conversion of captured video as Report	YOLO Model
6.	File Storage	File storage requirements	Local Filesystem
7.	Machine Learning Model	Purpose of Machine Learning Model	URL detection classification Model.
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, IBM Cloud .

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	• Microsoft's Visual Object Tagging Tool (VoTT). • YOLO Model	Preprocessed image or video frame is detected and trained to predict the output using the YOLO Model
2.	Scalable Architecture	• Convolutional neural network (CNN) can be scaled in three dimensions: depth, width, and resolution. • The depth of the network correlates with the number of layers present within. • Width is associated with the number of neurons in a layer. • Resolution is the image resolution that is being passed to CNN. Increasing the depth, by stacking more	Convolution Neural Network (CNN)
3.	Availability	Preprocessed Image or video frames are trained by YOLO Models and the model will be sent to UI they get trained to predict the output with the help of IBM Cloudant DB and detects the Disease	YOLO Model UI IBM Cloudant DB