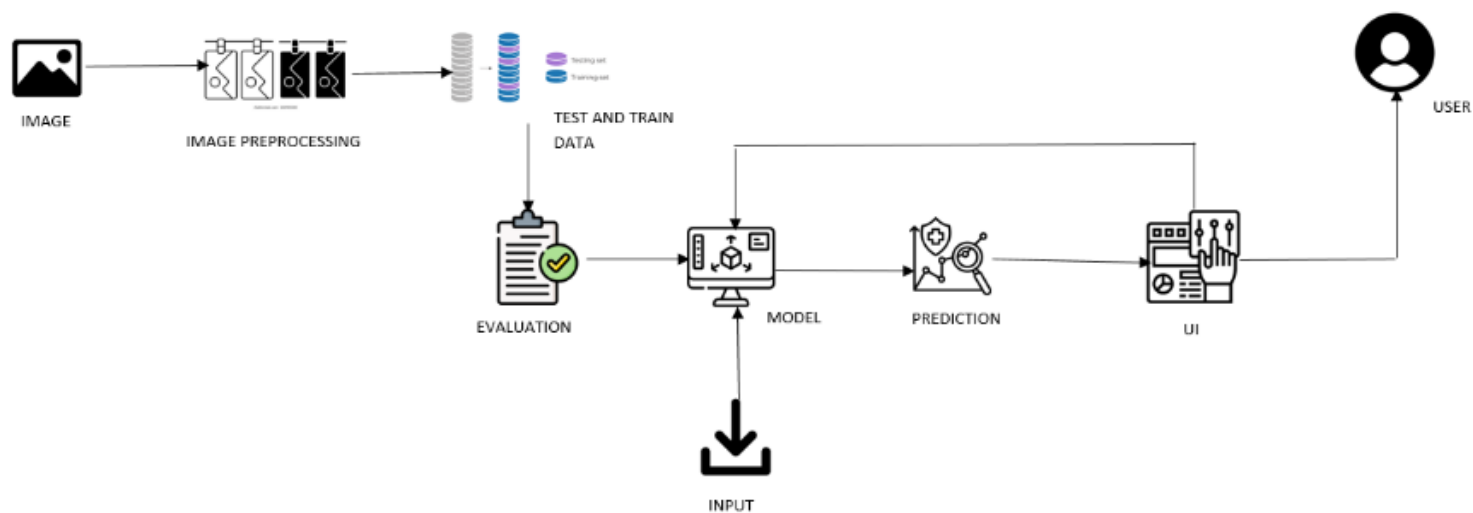


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	30 October 2022
Team ID	PNT2022TMID25885
Project Name	Project - AI-Based localization 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:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, JavaScript.
2.	Application Logic-1	HTML page for login, Registration, Prediction, Logout	Python
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.	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	Application registration using Email	HTML
9.	External API-2	Confirmation via Email	Email
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud server	IBM platform.

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Annotate images using VOTT	Cloud DB
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions, IAM Controls.

S.No	Characteristics	Description	Technology
3.	Scalable Architecture	This method is ensured accurate information about patient skin disease.	Artificial intelligence
4.	Availability	Prediction of the disease at early stages helps in early early cure of disease.	Image processing
5.	Performance	The application can predict accurate results at perfect timings.	IBM cloud

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- 2) Huang, K., Jiang, Z., Li, Y., Wu, Z., Wu, X., Zhu, W., Chen, M., Zhang, Y., Zuo, K., Li, Y. and Yu, N., 2021. The Classification of Six Common Skin Diseases Based on Xiangya-Derm: Development of a Chinese Database for Artificial Intelligence. *Journal of Medical Internet Research*, 23(9), p.e26025.
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