

Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID28251
Project Name	AI-based localization and classification of skin disease with erythema
Maximum Marks	4 Marks

Solution Architecture:

- The Skin Disease Image Dataset is taken from Google and is processed and annotated using Roboflow tool.
- This processed dataset is splitted into Training (70%), Validation (20%) and Testing (10%) datasets.
- This processed dataset is trained using Yolo and OpenCV python libraries.
- An Artificial Intelligence model is built after training for considerable number of epochs which is shown from the training phase diagram.
- A Full Stack Web App is build using React and Flask with cloud Database provided by IBM.
- The skin diseased image uploaded by the user from the frontend is fed into the AI model built which classifies what type of disease and localizes the areas affected by. This process takes place at the backend.
- This output result is finally displayed to the user.

Solution Architecture Diagram:

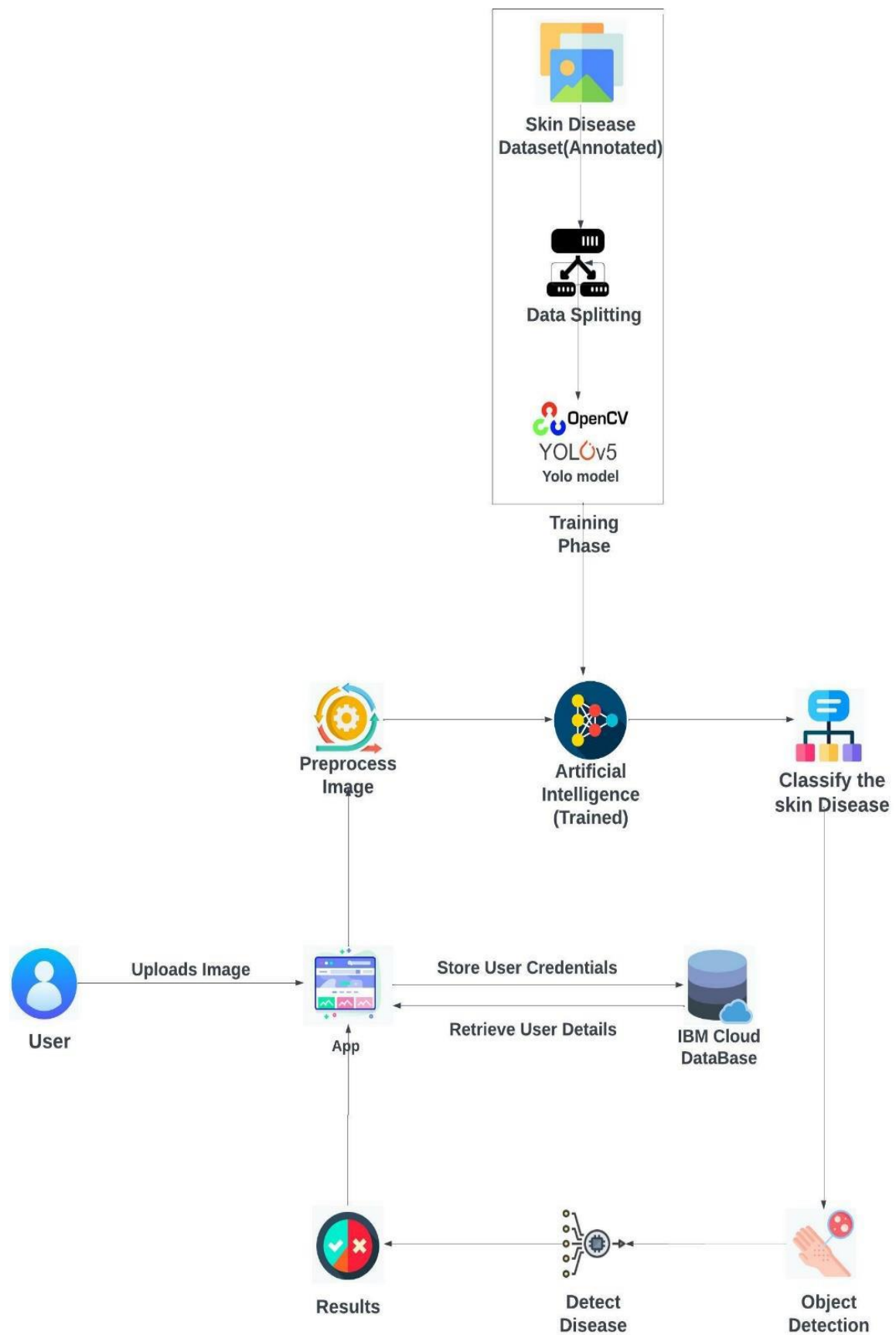


Figure 1: Architecture and data flow of the skin disease prediction application