

Project Design Phase-I
Solution Architecture

Date	16 October 2022
Team ID	PNT2022TMID52149
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Technologies needed for Minimum Viable Product deployment

Software technologies required for the systematic development and deployment of the project are:

- HTML/CSS/JavaScript/bootstrap-Front End Development
- Python
- TensorFlow
- Image processing Basics
- Flask-Backend Development
- Git & GitHub-project Management
- IBM Cloud-Hosting
- IBM Watson-Training the Deep Learning Model

SOLUTION- ARCHITECTURE DIAGRAM:

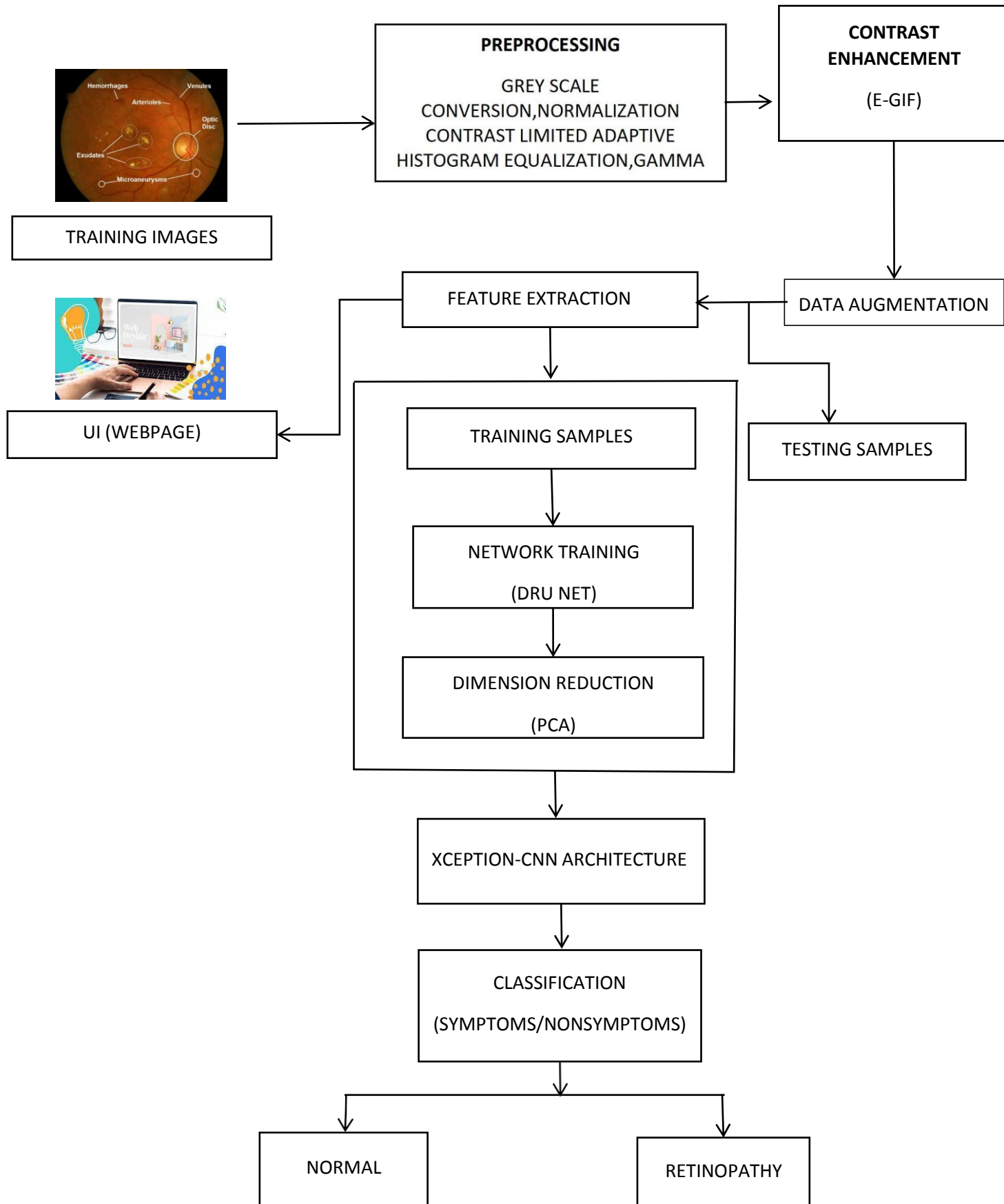


Figure 1: Architecture and data flow of the voice patient diary sample application

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>