

## Project Design Phase-I

### Solution Architecture

Date	16 October 2022
Team ID	PNT2022TMID28495
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:

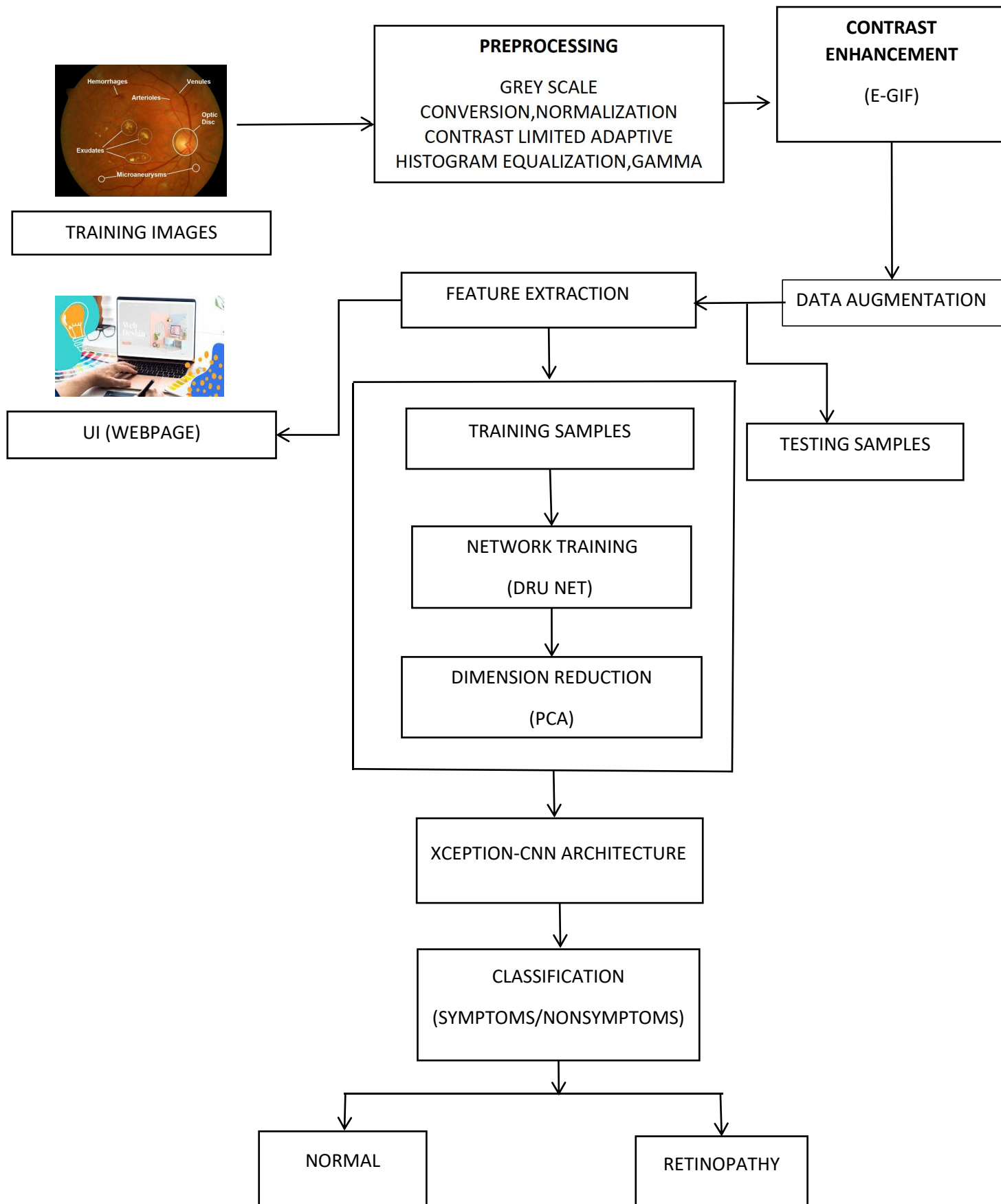
- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution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