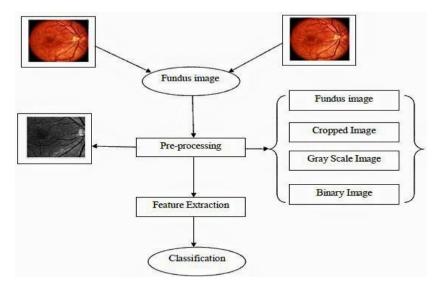
Project Design Phase-II Data Flow Diagram & User Stories

Date	03 October 2022
Team ID	PNT2022TMID41433
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	4 Marks

Data Flow Diagrams:

Example: FLOW CHART



Diabetic Retinopathy Detection Model Green Channel CLAHE Retinal Fundus Images Open-close watershed transform Removed Optic disc images Removal of blood vessels Grey level thresholding Hard Exudates Top hat transformation Gabor Filtering Segmented Images Microaneurysms Feature Extraction Soft Exudates LBP TEM Entropy Optimal feature selection Proposed MGS-Classification using DBN Earlier Moderate Severe

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Fundus image	USN-1	The fundus is the inside, back surface of the eye. It is made up of the retina, macula, optic disc, fovea and blood vessels. With fundus photography, a special fundus camera points through the pupil to the back of the eye and takes pictures.		High	Sprint-1
	Pre-processing	USN-2	A preliminary processing of data in order to prepare it for the primary processing or for further analysis. The term can be applied to any first or preparatory processing stage when there are several steps required to prepare data for the user.		High	Sprint-1
	Feature Extraction	USN-3	Feature extraction from the fundus images for the diagnosis of Diabetic Retinopathy. Diabetic retinopathy refers to an advanced eye screening technology by which eye related diseases can be detected at an early stage. Detection of lesions in fundus images can assist in early stage of a Diabetic Retinopathy.		Medium	Sprint-2
	Classification	USN-4	The four diabetic retinopathy stages are classified as mild, moderate, and severe non proliferate and proliferative.		Low	Sprint-1
	Post Processing	USN-5	If the fundus image contains more than 5 spots than the eye is diseased and less than 5, the eye is normal.	MATLAB	High	Sprint-1