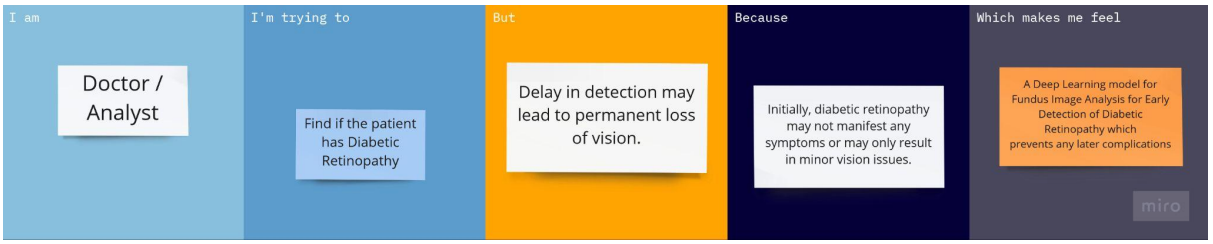
Ideation Phase
Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID13018
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	2 Marks

Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy:

A diabetes condition that impacts the eyes is diabetic retinopathy. Damage to the blood vessels in the light-sensitive tissue at the back of the eye is what causes it (retina). Initially, diabetic retinopathy may not manifest any symptoms or may only result in minor vision issues. Deep learning is a key component in ophthalmology to diagnose critical disorders like diabetic retinopathy (DR). Diabetic retinopathy is a common disease that diabetic patients are diagnosed with.The analyst is responsible for manually detecting exudates, which takes time. Diabetic Retinopathy (DR) is a common complication of diabetes mellitus, which causes lesions on the retina that affect vision. If it is not detected early, it can lead to blindness. Unfortunately, DR is not a reversible process, and treatment only sustains vision. DR early detection and treatment can significantly reduce the risk of vision loss. The manual diagnosis process of DR retina fundus images by ophthalmologists is time, effort and cost-consuming and prone to misdiagnosis unlike computer-aided diagnosis systems.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Doctor / Analyst	Find if the patient has Diabetic Retinopathy	Delay in detection may lead to permanent loss of vision.	Initially, diabetic retinopathy may not manifest any symptoms or may only result in minor vision issues.	A Deep Learning model for Fundus Image Analysis for Early Detection of Diabetic Retinopathy which prevents any later complications