IBM-EPBL/IBM-Project-54108-1661597230 PROBLEM STATEMENT: Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy.

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AIM: To write the problem statement for Deep Learning Fundus Image Analysis for Early Detection of Diabetics Retinopathy.

PROBLEM STATEMENT:

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.

Who does the problem affect?	Anyone with type 1 diabetes or type 2 diabetes
What are the boundaries of the problem?	Increase in blood sugar is, the most important reason to develop this eye complication.
What is the issue?	➢ Blindness. ➢ Spots or dark strings floating in your vision. ➢ Dark or empty areas in vision
When does the issue occur?	An abnormal rise in diabetic levels
Where does the issue occur?	Diabetic retinopathy is a complication of diabetes, caused by high blood sugar levels damaging the back of the eye, then a leak in small amount of blood into your retinas.
Why is it important that we fix the problem?	If it is not detected early, it can lead to blindness. Unfortunately, diabetic retinopathy is not a reversible process, and treatment only sustains vision
How to solve this issue?	The detection of this DR in early stages manually is a difficult task. Since a Deep learning techniques are used for early detection of diabetic retinopathy that can prevent blindness and other eye related diseases