Project Design Phase-I Proposed Solution

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| **Date** | 23 September 2022 |
| **Team ID** | IBM-Project-23287-1659877068 |
| **Project Name** | Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy |

**Proposed solution:**

The main aim of this project is to create an appropriate machine learning model to detect Diabetic Retinopathy as early as possible.

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| **S. No** | **Parameter** | **Description** |
| 1 | Problem statement | 1)To find the presence of lesions in the eye.  2) To find HbA1c level  3) Early detection of illness |
| 2 | Idea / Solution description | 1)Prediction is done at a faster rate.  2)Accuracy of prediction.  3)laser treatment can stop or slow the leakage of blood and fluid in the eye. |
| 3 | Novelty / Uniqueness | 1) Use of powerful deep neural network.  2) It provides robust and trusted support.  3)Maintaining database which contains details of the disease. |
| 4 | Social Impact | 1) Reduction of Diabetic Retinopathy risk.  2) Provides Digital Assistance.  3) Very helpful in making decisions faster.  4) Can be used 24x7. |
| 5 | Business Model | 1) This can be implemented as an essential diagnosis method in every hospital.  2) Accurate detection and analysis can encourage the increase in financial benefit. |
| 6 | Scalability of Solution | 1) Accurate predictions and extensive use.  2) Based on the times of the correct diagnosis.  3) Availability. |