Project Design Phase-I Proposed Solution

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| Date | 14 October 2022 |
| Team ID | PNT2022TMID37928 |
| Project Name | **Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy.** |
| Team Leader | SRIKARAN S |
| Team Members | SURESHKUMAR J , TAMILARASAN N ,SIVARAMAKRISHNAN M |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
| 1. | **Problem Statement (Problem to be solved)** | 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. |
| 2. | **Idea / Solution description** | 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. DR early detection and treatment can significantly reduce the risk of vision loss. |
| 3. | **Novelty / Uniqueness** | Image analysis and resources &  Humans detected using “**Advanced Artificial intelligence”.** |
| 4. | **Social Impact / Customer Satisfaction** | Diabetic Retinopathy 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.we can control the issue by earlier diagnosing. |

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| 5. | **Business Model (Revenue Model)** | From this we Can make money through the Subscription process .  Partnership with many laboratories and scientists around the world.  By giving additional information the users can get more benefits & information about the plan. |

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| 6. | **Scalability of the Solution** | Image detection, scanning in advanced Artificial Intelligence. It shows the information about the amount of infection occured which could be easily controlled. |