Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 28December 2022 |
| Team ID | PNT2022TMID50773 |
| Project Name | Project - 2665-1658480813 |
| Maximum Marks | 4 Marks |

# Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Identifying and selecting dataset | The appropriate dataset to enhance the model’s  performance is necessary to select. |
| FR-2 | Invitation and information | Invite the full cohort for screening, supplying information tailored appropriately for different  groups To enable informed choice to participate. |
| FR-3 | Training | It is required to import the libraries needed for  training the model. |
| FR-4 | Diagnosis | Diagnose true cases and identify the false positives. |
| FR-5 | Testing | Conduct screening tests with different data to test if the model is trained well to predict the medical  condition. |
| FR-6 | Reporting | Report the outcomes to identify false negatives and  improve effectiveness of the screening program. |
| FR-7 | Intervention/Treatment/Followup | The testing of the model helps us to identify the  appropriate treatment. |

# Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Users with basic understanding of the medical condition and computer knowledge can operate the system. User friendly interface that can be accessed  with ease by users. |
| NFR-2 | **Security** | Deep learning AI can be more precise around  sensitive organs and tissues, reduce blood loss, risk of infection, and pain during detection. |
| NFR-3 | **Reliability** | There is a chance of hardware failure or false  positives when the testing data is more different |

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|  |  | than the training dataset. Permission granted only by  the administrator of the system. |
| NFR-4 | **Performance** | If the system update fails or bugs in the code even though the system can rollback to its initial state. The performance of the model is meant to give  speedy results for the patients. |
| NFR-5 | **Availability** | The treatment should be available at low cost so  that everyone with DR can find it beneficial. |
| NFR-6 | **Scalability** | By processing more datasets for the reference of DR  detection. |