Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 15 October 2022 |
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| Project Name | Early Detection of Chronic Kidney Disease using Machine Learning |
| 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 | User Registration | Registration through Form  Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Data Collection | Input data through Form  Store the data in database |
| FR-4 | Data Analysis | Pre-process the data  Check correct format of Input |
| FR-5 | Prediction of disease | Evaluate the ML model with the data  Store the result in database |
| FR-6 | Provide output to the user | Display the prediction result in UI |

# 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** | The Web UI is simple and easy for navigation and understanding even by common people with the help of known labels and descriptions. |
| NFR-2 | **Security** | The users are required to register so that only  verified users can use the application. |
| NFR-3 | **Reliability** | The prediction result is expected to be accurate and  free from error. |
| NFR-4 | **Performance** | The webpage must load quickly even with slow internet connection.  The ML model must predict the result with great accuracy and speed. |
| NFR-5 | **Availability** | The website should be without any downtime for  updates. |
| NFR-6 | **Scalability** | This simple web application must have high  scalability for supporting large number of users. |