Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	05 Novober 2022
Team ID	PNT2022TMID04262
Project Name	Project - Early detection of Chronic Kidney Disease Detection using Machine Learning
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	*website opens *Explains Chronic Kidney Disease, causes and treatments. *new user asks to sign up, or already if the user exists asks to login
FR-2	User Confirmation and verificaton	The user had to enter the email id or mobile number, password, and her/his name. The OTP will be sent to registered email id or phone number.
FR-3	Collection of dataset	Collect the dataset based on CKD and process the data.
FR-4	Training the model	By using the processed data, the data will be trained again again to get greater accuracy.
FR-5	Testing the model	Model will be tested using 20% of data.
FR-6	Prediction	After completing the above process, the result is predicted.(whether he/she has CKD or not).

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description

NFR-1	**Usability**	**By Predicting CKD in earlier stages helps to decrease mortality rate. So, detecting CKD in earlier stages by using machine learning model using the attributes of clinical tests is going to very useful for the users.**
NFR-2	**Security**	**The reports are maintained confidentially to the customer.**
NFR-3	**Reliability**	**The model will predict the CKD more accurate and keep the customer data more secure. As a result more number of customers will approaches us.**
NFR-4	**Performance**	**By training the model again and again to get 95% of accuracy. So the performance of model is good.**
NFR-5	**Availability**	**Website and trained will be available to predict at any time.**
NFR-6	**Scalability**	**This model can be explained to include more attributes for more accurate detection. Training the model with even more attributes will increase the efficiency.**