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

Date	18 October 2022
Team ID	PNT2022TMID17480
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Home Page (Login Page)	• Introduction page of the website. • Symptoms and steps to cure will be displayed. • If the user already exists asks to **login** or elseredirects to **Sign Up.**
FR-2	User Sign Up Page	The user had to enter the username, phone number andpassword.
FR-3	User Verification	After getting the phone number the OTP will be sent viaSMS and it will be verified.
FR-4	Dataset Collection	Collect the data set related to Chronic Kidney Diseaseand process the data.
FR-5	Training the Model	By using the processed data the model will be trainedagain and again by using back propagation techniques.
FR-6	Testing the Model	By using 20% of dataset the model will be tested.
FR-7	Prediction	By using the data collected from the tested model theresult is predicted.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Creating a machine learning model that uses the attributes of medical tests taken for different purposesto detect chronic kidney disease at early stage.
NFR-2	**Security**	The reports are maintained confidentially to thecustomer.
NFR-3	**Reliability**	The model will identify and detect the kidney diseaseearlier, so more number of clients will approach us and it results how the model is more reliable to the customers.
NFR-4	**Performance**	By using DNN, we can predict the chronic kidney

		disease with more than 95% of accuracy. In the DNNwe have more hidden layers and hence its accuracy

		also high.
NFR-5	*Availability*	*It is used a website(UI) and trained model to predictit will work at any time.*