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

Date	03 October 2022
Team ID	PNT2022TMID49675
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.

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	Markers of kidney damage	Albuminuria (ACR ≥ 30 mg/g) Urine sediment abnormalities Electrolyte and other abnormalities due to tubular disorders Abnormalities detected by histology Structural abnormalities detected by imaging History of kidney transplantation
FR-4	Decreased GFR	GFR <60 ml/min/1.73 m2

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Proposed system to check whether the patient have chronic kidney disease or not, in more accurate and faster way based on certain diagnostic measurements like Blood Pressure (Bp), Albumin(Al) .
NFR-2	**Security**	The main aim of this application is early prediction and proper treatments can possibly stop or slow the progression of this disease to end stage also it secure patients personnel data .
NFR-3	**Reliability**	This helps kidney patients to cure in early stages to take prescribed activities and foods . This method is very helpful for poor people.
NFR-4	**Performance**	Chronic kidney Disease can be cured, if treated in the

		early stages here we are going to predict whether the patient have chronic kidney disease or not, in more accurate and faster way by measure the severity of the problem and we make use of such information to build a machine learning model that predicts Chronic Kidney Disease that based on certain diagnostic measurements like Blood Pressure (Bp), Albumin(Al) levels. early prediction and proper treatments can possibly stop or slow the progression of this disease to end stage.
NFR-5	**Availability**	kidney patients can cure in early stages to take prescribed activities and foods .
NFR-6	**Scalability**	In Existing system the severe of kidney disease measured by common symptoms, such as blood in your pee (urine), an increased need to pee particularly at night, difficulty sleeping (insomnia),itchy skin so its takes time to find out the disease.But in our Proposed system to check whether the patient have chronic kidney disease or not, in more accurate and faster way based on certain diagnostic measurements like Blood Pressure (Bp), Albumin(Al)