Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID39471
Project Name	Early Detection of Chronic Kidney Disease
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The early detection of kidney illness.
2.	Idea / Solution description	Using the idea prioritisation and brainstorming template in Mural, the viability and significance of these suggestions are assessed. These are all; 1. Check for urine pus cells, diabetes, edoema, packed cell volume, anaemia, and urea. Mention CKD if it is higher than the cutoff.Regular blood tests for Glomerular Filtration Rate (GFR) and Creatinine

		All of the aforementioned recommendations should be carried out in order to prevent chronic renal disease and diagnose it early.

		Regarding point no. 1, It is conceivable to check a large number of people—roughly 1000 people—for anaemia, urea, packed cell volume, edoema in the leg, diabetes, and urine pus cells—and then create an excel sheet to ascertain whether or not they have chronic kidney disease. Then, an AI model may be trained and tested using this excel spreadsheet. If only these parameters are fed into the model, it can later assess whether or not chronic renal illness is present. Regarding point no. 2, To evaluate whether a person has chronic kidney disease, blood samples from a thousand people can be analysed for creatinine and glomerular filtration rate (GFR). The data can be used to design, train, and test an AI model to predict chronic kidney disease.. A ML model can be built to analyze these data and further used to predict the kidney disease from it.

3.	Novelty / Uniqueness	Numerous experts agree that the most conventional approach is to assess several blood parameters and identify chronic renal disease at an early stage. The user can recognize Chronic Kidney Disease in the vicinity of (15 minutes).
4.	Social Impact / Customer Satisfaction	Early diagnosis of CKD helps to facilitate adequate drug administration and timely preparation for kidney replacement, which may improve outcomes. It also reduces the number of fatalities associated with this condition.
5.	Business Model (Revenue Model)	capable of generating direct client revenue. can work with the healthcare industry and make money from their clients.
6.	Scalability of the Solution	ML models may be quickly updated and resized. When supplied with various types of data, the same machine learning model can potentially be used to detect additional fatal diseases.