Project Design Phase-I
Proposed Solution Template

Date	13 October 2022
Team ID	PNT2022TMID26456
Project Name	Project – Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	2 Marks

Proposed Solution :

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Chronic Kidney Disease (CKD) is a progressive disease that has become a global health crisis. A model that would help to predict this disease in its early stages will be effective in halting or delaying its progression by providing the necessary treatment to the patients.
2.	Idea / Solution description	**Steps to be performed:** ● Pre-processing or cleaning of the data sets. ● Next, analysing the pre-processed data. ● Train the machine with the pre-processed data. ● We use and compare different algorithms and choose the one that proves to be highly accurate.
3.	Novelty / Uniqueness	● The key indicators of CKD are eGFR levels and urine albumin. GFR level aberrations will be taken into account for predicting CKD. ● Eliminating features that provide very less contribution to detect the kidney disease and using important features would provide results that are more accurate.

4.	Social Impact / Customer Satisfaction	The objective of this system is to predict kidney disease earlier. Advanced stage treatment might require dialysis which is expensive and most of the people will not be able to afford it. Early prediction will help in providing the needed treatment to prevent the disease from advancing to the next stage.
5.	Business Model (Revenue Model)	Profits can be gained by collaborating this model with the healthcare sectors and MNCs. People who undergo CKD prediction tests will get accurate results according to which the hospital can treat them. It can facilitate better quality care for chronic illness and hence can be beneficial for the healthcare sectors as well.
6.	Scalability of the Solution	The proposed model to predict CKD is best suited for handling larger datasets.