

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID08664
Project Name	Project – Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Chronic Kidney Disease is an asymptomatic in its early stages and cannot be noticeable until the condition is advanced. Early prediction can lower the risk factor and prevent the loss of life. To solve this problem, we develop a proposed and effective system by gathering the data and train the model using different machine learning algorithms to predict at the earliest.
2.	Idea / Solution description	Dataset is gathered consisting of user's information. It is then moved to stages like pre-processing, constructing a model and training the data and testing it. Evaluation is done on it to choose the best algorithm which yields maximum accuracy. The final output allows to check whether the user has chronic kidney disease or not.
3.	Novelty / Uniqueness	The suggested solution uses ensemble techniques for analysis and can avoid bias or variance in the model. It is accomplished to downstage (increase the percentage of CKD recognised at an early stage). Traditional testing takes more time to detect the disease. With the model developed here, it will be easier to understand the analysis done at the background.

4.	Social Impact / Customer Satisfaction	The proposes help the user to safely enter the medical data without any fear of them. The final system helps to reduce the anxiety and can further improves the users to be aware of the disease. Following the prediction, users will be able to take doctor's advice and prescription.
5.	Business Model (Revenue Model)	Make money from direct users and can work with the healthcare industry to make money from their users.
6.	Scalability of the Solution	The proposed system is scalable because as the number of features get added and number of users also get increased, it can predict efficiently.