

**Project Design Phase-I**  
**Proposed Solution Template**

Date	19 September 2022
Team ID	PNT2022TMID22055
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 the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Kidney diseases avert the normal function of the kidney. Early prediction of kidney disease using both classification and regression algorithms are an effective task that can help the doctors to diagnose the disease within a short duration of time.
2.	Idea / Solution description	Since certain data are missing, the initial step is to perform pre-processing by cleaning the dataset, along with scaling and normalization of values. The next step is to use dimensionality reduction to identify the key features in the dataset and to remove any irrelevant ones. To accomplish early detection of chronic kidney disease utilizing the indicated key traits, a decision tree model must be fitted.
3.	Novelty / Uniqueness	This project provides the best accuracy for predicting kidney disease.
4.	Social Impact / Customer Satisfaction	The primary goal of this application is early prediction, and appropriate treatments may be able to prevent or delay the disease's progression to an advanced state.
5.	Business Model (Revenue Model)	The application is free of cost. It can be used by any person from anywhere.
6.	Scalability of the Solution	The dimensionality reduction process can be adjusted to produce precise predictions with an increase in the features taken into account.