

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

Date	18 <sup>th</sup> October 2022
Team ID	PNT2022TMID39626
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)	<p>The main aim is to detect the detection efficiency that would be beneficial for the patients who are suffering from chronic kidney disease and to prevent at early stages to reduced the effects of CKD.</p> <p>Chronic Kidney Disease(CKD) is a condition in which the kidneys are damaged and cannot filter blood as they always do.This is a lasting damage to the kidney and chances of getting worser by time is high.The very common complications that results due to a kidney failure are heart diseases, anemia, bone diseases, high potassium and calcium.</p> <p>The worst case situation leads to complete kidney failure and necessitates kidney transplant to live. An early detection of Chronic Kidney Disease can improve the quality of life to a greater extent. This calls for good prediction algorithm to predict CKD at an earlier stage .The techniques used in the problems are KNN, Naïve Bayes, Logistic Regression.This uses data pre-processing, data transformation and various classifiers to detect Chronic Kidney Disease and also proposes best detection framework for Chronic Kidney Disease.</p>
2.	Idea / Solution description	<p>This concept is useful in medical field especially using this the disease can be detected easily and quicker manner. The detection of this disease may help many patients to prevent additional side effects like pulmonary edema which may lead to breathing problems and heart attacks.</p>
3.	Novelty / Uniqueness	<p>Chances of kidney failure can be reduced and the disease can be cured.</p>

		The side effects of the chronic kidney disease can be prevented by detecting at the early stage.
4.	Social Impact / Customer Satisfaction	It helps the doctors to detect the disease at the early stage and easier manner. It helps to prevent loss of life and kidney failure.
5.	Business Model (Revenue Model)	Hospitals can use this methodology because nowadays people suffer with many kidney problems which may be helpful for detection.
6.	Scalability of the Solution	Supportful in detection of disease and side effects of kidney disease.