Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID49652
Project Name	Early detection of Chronic Kidney Disease using Machine Learning

Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Nowadays, there are many people who suffer from chronic kidney disease.Due to their busy lives, they often neglect their health. With the use of modern day software, we can detect chronic kidney disease at its early stages to prevent further complications. The method should be cost efficient and less time consuming, and provides accurate details about the health of the patient's kidney.
2.	Idea / Solution description	This work detects the Chronic Kidney Disease (CKD) using machine learning algorithms while considering the least number of tests or features. We approach this aim by applying four machine learning classifiers: logistic regression, SVM, random forest, and gradient boosting on a small dataset of 400 records. . A filter feature selection method has been applied to the remaining attributes and found that there are haemoglobin, albumin, and specific gravity have the most impact to predict the CKD.
3.	Novelty / Uniqueness	This web is user friendly, low cost and the result's accuracy will be high.
4.	Social Impact / Customer Satisfaction	The most obvious societal effect of this website is we can reduce the tremendous financial cost and loss of productivity associated with kidney failure. Since we detect the chronic kidney disease earlier the psychosocial factors including depression, anxiety and lower social support are common in patients with CKD can also be reduced.
5.	Business Model (Revenue Model)	While individuals with CKD can pose substantial expense to the healthcare system, those with end-stage renal disease cost exponentially more. This application may detect the chronic kidney disease earlier with low cost.
6.	Scalability of the Solution	In order to reduce the chance of false report, the association between the variables have been studied.By using the algorithms which has

		the most accuracy it will be more useful to get the accurate results.