IDEATION PHASE

PROBLEM STATEMENT

Date	09 September 2022
Team ID	PNT2022TMID36376
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	2 Marks

Problem Statement:

Chronic kidney disease (CKD) is a major burden on the healthcare system because of its increasing prevalence, high risk of progression to end-stage renal disease, and poor morbidity and mortality prognosis. It is rapidly becoming a global health crisis. Unhealthy dietary habits and insufficient water consumption are significant contributors to this disease. Without kidneys, a person can only live for 18 days on average, requiring kidney transplantation and dialysis. It is critical to have reliable techniques at predicting CKD in its early stages. Machine learning (ML) techniques are excellent in predicting CKD. The current study offers a methodology for predicting CKD status using clinical data, which incorporates data preprocessing, a technique for managing missing values, data aggregation, and feature extraction. A number of physiological variables, as well as ML techniques such as logistic regression (LR), decision tree (DT) classification, and -nearest neighbor (KNN), were used in this work to train three distinct models for reliable prediction. The LR classification method was found to be the most accurate in this role, with an accuracy of about 97 percent in this study. The dataset that was used in the creation of the technique was the CKD dataset, which was made available to the public. Compared to prior research, the accuracy rate of the models employed in this study is considerably greater, implying that they are more trustworthy than the models used in previous studies as well. A large number of model comparisons have shown their resilience, and the scheme may be inferred from the study's results.

I am	Suffering from Vomiting, Loss of appetite, Fatigue and weakness, Sleep problems, Urinating more or less, Muscle cramps, Shortness of breath
I am trying to	Go for a medical check up as it may lead to severe phenomenon.
But	I cannot able to find an efficient way to do a complete diagnose of my anatomy without spending too much amount of time and also, I want a promising record of the conducted diagnosis.
Because	I don't dare to have my diagnosis in a less promising manner.
Which makes me feel	Very devastated and it may lead to a severe damage because of late detection of disease.