Problem Statement (PS-7)

Chronic Kidney Disease Classification

Problem Description

➢ The kidney is one of the most important body organs that filtrates all the wastes and water from human body to make urine

➢ Chronic Kidney Disease (CKD), also commonly known as chronic renal disease or chronic kidney failure is a life-threatening disease

➢ It leads to the continuous decrease of Glomerular Filtration Rate (GFR) for a period of 3 months or more and is a universal health problem

➢ CKD is caused by a variety of underlying factors, including diabetes, high blood pressure and other diseases that damage the kidneys

➢ Early symptoms of CKD can be subtle and may include fatigue, swelling and decreased urine output which is why it often goes undiagnosed until the later stages

➢ Early detection and treatment can help for slow the progression of the disease and prevent complications

➢ Machine Learning (ML) techniques can be used to predict, diagnose and monitor Chronic Kidney Disease (CKD)

Requirement Specification

➢ Use historical dataset (Dataset Attached) on chronic kidney disease from UC Irvine Machine Learning Repository which consists of information such as age, blood pressure, Specific Gravity, Albumin, Sugar, Red blood cells and etc.

➢ Develop an appropriate ML model to classify whether chronic kidney disease is present or not as per the given dataset.

Judging Metrics

➢ Chronic Kidney Disease Classification -Precision, Recall, Accuracy F1-score, Specificity,
confusion matrix

- **LINK FOR REFERENCE-**

https://github.com/Singla2006/Kidney-Disease-Project.git