Model Development Phase

Date	10 July 2024
Team ID	SWTID1721205662
Project Title	Early Prediction of Chronic Kidney Disease Using Machine Learning
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will come with a brief description. Users will specify whether they have selected the feature and provide their reasoning. This process will streamline decision-making and improve transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
id	**id**: Identifier for each entry.	**No**	For predicting a chronic disease, id of patient is not relevant.
age	**age**: Age of the patient.	**Yes**	Older age is a risk factor for CKD.
bp	**bp**: Blood pressure	**Yes**	High blood pressure can damage kidneys.

sg	**sg**: Specific gravity of urine.	**Yes**	Measures urine concentration, which can be affected by kidney function.
al	**al**: Albumin level in urine.	**Yes**	High levels in urine can indicate kidney damage
su	**su**: Sugar level in urine.	**Yes**	High sugar levels in urine (glycosuria) can indicate diabetes mellitus, a leading cause of CKD.
ba	**ba**: Bacteria.	**No**	Bacterial infection is not relevant to CKD in any form.
pc	**pc**: Pus cell.	**Yes**	Indicate infection or inflammation in the urinary tract or kidneys
sc	**sc**: Serum creatinine.	**Yes**	Elevated levels are indicators of reduced kidney function.
bgr	**bgr**: Blood glucose random.	**Yes**	High levels can indicate diabetes, a major cause of CKD

bu	**bu**: Blood urea	**Yes**	Elevated levels are indicators of reduced kidney function.

sod	**sod**: Sodium level.	**Yes**	Electrolyte levels are regulated by the kidneys
Pot	**pot**: Potassium level.	**Yes**	Electrolyte levels are regulated by the kidneys
hemo	**hemo**: Hemoglobin level.	**Yes**	Low levels (anemia) are common in CKD.
pcv	**pcv**: Packed cell volume	**Yes**	Can be reduced in CKD.
wc	**wc**: White blood cell count.	**Yes**	Abnormal levels can be a sign of kidney issues.
rc	**rc**: Red blood cell count.	**Yes**	Low count can indicate anemia

htn	**htn**: Hypertension	**Yes**	Both a cause and a complication of CKD.
cad	**cad**: Coronary artery disease	**Yes**	Associated with CKD due to common risk factors.

appet	**appet**: Appetite	**Yes**	Symptoms related to advanced CKD.
pe	**pe**: Pedal edema	**Yes**	Symptoms related to advanced CKD.
ane	**ane**: Anemia	**Yes**	Common in CKD due to reduced erythropoietin production.
classification	**classification**: Classification of the disease	**Yes**	**The target variable which classifies whether the patient suffers from CKD or not.**