

## Model Development Phase Template

Date	15 July 2024
Team ID	739948
Project Title	Early Prediction Of Chronic Kidney Disease
Maximum Marks	5 Marks

## Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Age	Age refers to the length of time that a person has lived or a thing has existed.	Yes	As people age, they experience physiological changes and are more likely to develop conditions that contribute to CKD.
Blood Pressure	Blood pressure is the force exerted by circulating blood against the walls of blood vessels.	Yes	As high blood pressure can damage the kidney's blood vessels.
Glucose	Glucose, a simple sugar, is a primary source of energy for the body's cells.	Yes	In the context of Chronic Kidney Disease (CKD) and general health, glucose levels are critically important.

Edema	Edema is the medical term for swelling caused by excess fluid trapped in the body's tissues.	Yes	CKD can lead to fluid retention due to the kidneys' inability to remove excess fluid and waste products efficiently.
Anemia	Anemia is a condition characterized by a deficiency of red blood cells or hemoglobin in the blood, leading to reduced oxygen transport to the body's tissues.	Yes	Reduced production of erythropoietin by the kidneys leads to a lower red blood cell count.
Pus cell	Pus cells, also known as white blood cells (WBCs), are an essential part of the immune system. They play a critical role in fighting infections and responding to inflammation.	Yes	In the context of Chronic Kidney Disease (CKD), the presence of pus cells in urine can indicate secondary complications such as infections.
Diabetics	Diabetes is a chronic medical condition that occurs when the body cannot properly regulate blood sugar levels.	Yes	Leading cause of CKD due to damage to the blood vessels in the kidneys.
Coronary Artery Disease	Coronary Artery Disease (CAD), also known as ischemic heart disease or coronary heart disease, is a condition characterized by the narrowing or blockage of the coronary arteries due to the buildup of atherosclerotic plaques.	Yes	Chronic Kidney Disease (CKD) can significantly impact the cardiovascular system, including the development and progression of Coronary Artery Disease (CAD).

Specific gravity	Specific gravity (SG) of urine is a measure of the concentration of solutes in the urine.	No	The above we get the required, so we don't need to consider this.
Albumin	Albumin is a type of protein made by the liver and is found in blood plasma.	No	The above we get the required, so we don't need to consider this.
Red blood cell	Red blood cells (RBCs), also known as erythrocytes, are essential components of the blood.	No	The above we get the required, so we don't need to consider this.
Pus cell clumps	Pus cell clumps, also known as white blood cell (WBC) clumps, are aggregations of white blood cells typically seen in the urine.	No	The above we get the required, so we don't need to consider this.
Bacteria	Bacteria in the urine, also known as bacteriuria, is a common finding that can indicate a urinary tract infection (UTI) or other urinary system issues.	No	The above we get the required, so we don't need to consider this.
Sugar	Sugar, specifically glucose, in the urine (glycosuria) can be an important diagnostic marker.	No	The above we get the required, so we don't need to consider this.
Blood urea	Urea is a waste product formed in the liver as a result of protein metabolism and is normally excreted by the kidneys.	No	The above we get the required, so we don't need to consider this.

Serum Creatinine	It is a waste product produced from the normal metabolism of muscle cells and is usually excreted by the kidneys.	No	The above we get the required, so we don't need to consider this.
Sodium	Sodium is an essential electrolyte that plays several crucial role.	No	The above we get the required, so we don't need to consider this.
Potassium	Potassium is a vital mineral and electrolyte in the human body.	No	The above we get the required, so we don't need to consider this.
Hemoglobin	Hemoglobin is a protein in red blood cells responsible for transporting oxygen from the lungs to the rest of the body and returning carbon dioxide from the tissues back to the lungs.	No	The above we get the required, so we don't need to consider this.
Packed cell volume	Packed Cell Volume (PCV), also known as Hematocrit, is a medical laboratory measurement that indicates the proportion of blood that is made up of red blood cells.	No	The above we get the required, so we don't need to consider this.
White blood cell count	White Blood Cell Count (WBC) measures the number of white blood cells in a given volume of blood.	No	The above we get the required, so we don't need to consider this.
Red blood cell count	Red Blood Cell Count (RBC) measures the	No	The above we get the required, so we don't need to consider this.

	number of red blood cells in a given volume of blood.		
Hypertension	Hypertension, or high blood pressure, is a chronic medical condition where the force of the blood against the artery walls is consistently too high.	No	The above we get the required, so we don't need to consider this.
Appetite	Appetite refers to the natural desire to eat food.	No	The above we get the required, so we don't need to consider this.
Pedal edema	Pedal Edema refers to the swelling of the feet and ankles due to the accumulation of fluid in the tissues.	No	The above we get the required, so we don't need to consider this.