

Model Development Phase Template

Date	9 August 2025
Skillwallet ID	SWUID20250188620
Project Title	Anemia Sense: Leveraging Machine Learning for Precise Anemia Recognition
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
Patient_ID	Unique identifier for each patient	No	For predicting anemia, a patient ID is not required as it does not contribute to the diagnosis
Gender	Patient's gender	Yes	Relevant since gender can influence hemoglobin levels and anemia prevalence.
Hemoglobin	Hemoglobin concentration in g/dL	Yes	A key clinical indicator; low values are strongly associated with anemia.

MCH	Mean Corpuscular Hemoglobin – average hemoglobin per red blood cell	Yes	Useful for distinguishing types of anemia and detecting deficiencies.
MCHC	Mean Corpuscular Hemoglobin Concentration – hemoglobin concentration in red blood cells	Yes	Important for identifying abnormal cell coloration patterns linked to anemia.
MCV	Mean Corpuscular Volume – average size of red blood cells	Yes	Helps classify anemia as microcytic, normocytic, or macrocytic.
Result	Anemia diagnosis result (0 = No Anemia, 1 = Anemia)	Yes	The target variable for predictive modeling – essential for achieving the project's goal.