

Model Development Phase Template

Date	24 June 2025
Team ID	SWUID20250177148
Project Title	Machine Learning Approach for Employee Performance Prediction
Maximum Marks	5 Marks

Feature Selection Report

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
quarter	Quarter of the year	Yes	Helps identify seasonal patterns in productivity
department	Work department (e.g., sewing or finishing)	Yes	Different departments have varying productivity behaviors
day	Day of the week	Yes	Productivity may vary by weekday
team	Team Number	Yes	Teams may have unique dynamics that affect productivity

targeted_pro ductivity	Planned productivity set for the team	Yes	Core feature indicating expected output
smv	Standard Minute Value of task	Yes	Key measure of complexity/time allocation
Wip	Work in progress	Yes	High WIP may lower or affect productivity
Over_time	Overtime minutes	Yes	Overtime can indicate pressure/workload
incentive	Incentive amount	Yes	Motivation-based variable influencing productivity
Idle_time	Idle time during shift	Yes	Higher idle time may reduce productivity
Idle_men	Number of idle workers	Yes	Related to team utilization efficiency
no_of_style _change	Number of times style was changed	Yes	High frequency may reduce consistency/productivity
no_of_work ers	Total workers in team	Yes	Team size directly impacts potential output
month	Month extracted from date	Yes	Seasonal trend may impact performance

date	Original date of record	No	Converted to month; not useful in raw form
actual_prod activity	Actual productivity of the team (Target variable)	Yes	This is the target variable for prediction