Model Development Phase Template

Date: 31 July 2025

SkillWallet ID: SWUID20240141492

Project Title: Employee Performance Prediction using Machine Learning

Maximum Marks: 5 Marks

Feature Selection Report Template

This report outlines the selected features for predicting employee performance, including brief descriptions and reasoning for inclusion or exclusion.

Feature	Description	Selected (Yes/No)	Reasoning
Quarter	Business quarter in which performance is measured	Yes	Performance may vary across quarters due to seasonal work cycles.
Department	Department of the employee	Yes	Department impacts workload and productivity differences.
Day	Day of the week	Yes	Certain days may influence productivity patterns (e.g., weekends vs weekdays).
Team	Team assignment of the employee	Yes	Team structure affects collaboration and output.
Targeted_Productiv ity	Pre-defined productivity target	Yes	Crucial for comparing actual vs targeted productivity.
SMV (Standard Minute Value)	Standard time required for a task	Yes	Important for measuring efficiency and productivity levels.
Over_Time	Extra hours worked beyond regular shifts	Yes	Indicates workload and its correlation with productivity.
Incentive	Monetary incentive provided	Yes	Financial motivation often improves productivity.
Idle_Time	Duration of non-productive time	Yes	Directly impacts productivity and efficiency scores.
Idle_Men	Number of idle workers during working hours	Yes	Reflects workforce utilization issues affecting output.
No_of_Style_Chang e	Number of work style or task changes	Yes	Frequent changes may reduce efficiency and productivity.
No_of_Workers	Total number of workers in the team	Yes	Team size influences output and workload distribution.
Month	Month of performance measurement	Yes	Helps identify monthly productivity trends and seasonality.
Performance_Score	Actual productivity score	Yes	This is the target variable to be

Feature	Description	Selected (Yes/No)	Reasoning
(Target)	achieved	predicted.	