Model Development Phase Template

Date	25 June 2025
Team ID	SWTID1750155746
Project Title	Human Resource Management: Predicting Employee Promotions using Machine Learning
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
employee_id	Unique identifier for each employee	No	The employee ID is only an identifier and has no predictive value in determining promotion eligibility. It does not influence performance or evaluation.
Department	Department in which the employee works	Yes	The department may influence promotion decisions, as different departments may have varying promotion policies or performance expectations.
region	Geographic region of the employee's workplace	No	Region does not directly impact an employee's promotion eligibility. Promotions are typically based on performance and organizational policies rather than geographic location.

education	Education level of the employee	Yes	Education level can impact eligibility for promotion, as some roles may require specific qualifications.
gender	Gender of the employee	No	Gender should not influence promotion decisions in a fair evaluation process.
recruitment_channel	Channel through which the employee was recruited	No	Recruitment channel does not impact an employee's performance or promotion.
no_of_trainings	Number of training sessions attended by the employee	Yes	The number of trainings reflects the employee's skill development and readiness for promotion.
age	Age of the employee	Yes	Age may correlate with experience and maturity, which can influence promotion decisions depending on organizational norms.
previous_year_rating	Performance rating of the employee in the previous year	Yes	Previous performance is a strong indicator of an employee's consistency and capability, making it highly relevant for promotion prediction.
length_of_service	Total number of years the employee has served in the organization	Yes	Employees with longer service are more likely to be considered for promotion due to their experience and loyalty.
KPIs_met >80%	Whether the employee met more than 80% of their Key	Yes	Meeting KPIs is a direct performance metric and plays a significant role in determining promotion eligibility.

	Performance Indicators		
awards_won?	Whether the employee has received any awards	Yes	Awards are formal recognitions of performance or contribution, which are often considered in promotion decisions.
avg_training_score	Average score obtained by the employee in training sessions	Yes	A higher training score may indicate better skill acquisition and readiness for increased responsibilities.
is_promoted	Indicates whether the employee was promoted.	Yes	This is the target variable the model is trained to predict.