



Model Development Phase Template

| Date | 15 March 2024 |
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| Team ID | Advait Mahesh Shinde |
| 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 | Not required for predicting promotions as it doesn't provide predictive value |
| department | Department the employee belongs to | Yes | Relevant to determine promotion patterns across different departments |
| region | Region of the employee | No | Not important for predicting promotions in this context. |





| education | Employee's education level | Yes | Education level can impact performance and promotion eligibility |
|--------------------------|---|-----|---|
| gender | Employee's gender | No | Not important for predicting promotions in this context |
| recruitment_ch annel | Recruitment channel through which hired | No | Not important for predicting promotions in this context |
| no_of_training s | Number of training sessions attended | Yes | Additional training sessions can improve promotion readiness |
| age | Age of the employee | Yes | Age can indicate experience and influence promotions |
| previous_year_ rating | Performance rating from the previous year | Yes | Direct indicator of past performance, crucial for promotion decisions |
| length_of_serv ice | Length of service in the company | Yes | Company loyalty and experience are important for promotions |
| KPIs_met_abo ve_80 | KPIs met above 80% (0/1) | Yes | KPI performance is critical for assessing employee performance |
| awards_won | Whether the employee has won any awards (0/1) | Yes | Awards indicate high performance and recognition, influencing promotion decisions |





| avg_training_s core | Average score in training sessions | Yes | Training effectiveness can impact the likelihood of promotion |
|------------------------|--|-----|---|
| is_promoted | Promotion status (target variable) | Yes | This is the target variable for the predictive model |