

Data Assessment Document

1.Dataset Overview

Item	Details
Dataset Title	HR Employee Attrition Analysis
Domain / Theme	Human Resource Analytics / Workforce Management
Source	www.Kaggle.com
File Type	Excel
No. of Rows	3000
No. of Columns	22

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2.Data Structure Summary

Column Name	Data Type	Dimension / Measure	Description
Employee_ID	object	Dimension	Employee unique identifier
Employee_Name	object	Dimension	Categorical or demographic field
Gender	object	Dimension	Categorical or demographic field
Age	int64	Measure	Shows employee age
Region	object	Dimension	Categorical or demographic field
Department	object	Dimension	Indicates employee's department
Job_Role	object	Dimension	Categorical or demographic field
Education	object	Dimension	Categorical or demographic field
Marital_Status	object	Dimension	Categorical or demographic field
Years_at_Company	int64	Measure	Numerical value representing employee metrics
Years_in_Current_Role	int64	Measure	Numerical value representing employee metrics
Job_Level	int64	Measure	Numerical value

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Monthly_Income	int64	Measure	Represents salary or monthly income
Performance_Rating	float64	Measure	Represents performance rating
Training_Times_Last_Year	int64	Measure	Numerical value representing employee metrics
Work_Life_Balance	float64	Measure	Numerical value representing employee metrics
Job_Satisfaction	float64	Measure	Numerical value representing employee metrics
Environment_Satisfaction	int64	Measure	Numerical value representing employee metrics
Distance_From_Home	int64	Measure	Numerical value representing employee metrics
Business_Travel	object	Dimension	Categorical or demographic field
Overtime	object	Dimension	Categorical or demographic field
Attrition	object	Dimension	Categorical or demographic field

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3.Data Quality Assessment

Aspect Checked	Observations	Action Needed
Missing Data	Some nulls found in promotion, salary and years columns	Handle missing values using imputation or removal
Duplicates	No duplicate Employee IDs found	No action required
Outliers	Few salary outliers detected	Cap or treat outliers based on business logic
Incorrect Data Types	All columns have valid data types as per definitions	No action required
Consistency Issues	All columns are consistent	No action Required

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4.Key Metrics & KPIs

KPI	Why It Matters
Total Employees	Indicates total workforce size
Attrition Rate	Highlights retention and turnover risk
Average Monthly Income	Reflects overall pay level and financial health
Promotion Rate	Tracks employee career progression and growth
Average Performance Rating	Measures employee effectiveness and performance trends
Attrited Employees	Provides insight into workforce stability issues

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5.Assumptions & Risks

Assumptions / Risks
• Data represents all active and exited employees accurately
• Missing or null fields are random, not biased
• Salary and performance values reflect real business context
• Employee ID links all other tables correctly
• Attrition label is correctly recorded for each employee