Data Assessment document

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

Column Name	Data Type	Dimension / Measure
Employee_ID	object	Dimension
Employee_Name	object	Dimension
Gender	object	Dimension
Age	int64	Measure
Region	object	Dimension
Department	object	Dimension
Job_Role	object	Dimension
Education	object	Dimension
Marital_Status	object	Dimension
Years_at_Company	int64	Measure
Years_in_Current_Role	int64	Measure
Job_Level	int64	Measure
Monthly_Income	int64	Measure
Performance_Rating	float64	Measure
Training_Times_Last_Year	int64	Measure
Work_Life_Balance	float64	Measure
Job_Satisfaction	float64	Measure
Environment_Satisfaction	int64	Measure
Distance_From_Home	int64	Measure
Business_Travel	object	Dimension
Overtime	object	Dimension
Attrition	object	Dimension

Description
Employee unique identifier
Categorical or demographic field
Categorical or demographic field
Shows employee age
Categorical or demographic field
Indicates employee's department
Categorical or demographic field
Categorical or demographic field
Categorical or demographic field
Numerical value representing employee metrics
Numerical value representing employee metrics
Numerical value representing employee metrics
Represents salary or monthly income
Represents performance rating
Numerical value representing employee metrics
Numerical value representing employee metrics
Numerical value representing employee metrics
Numerical value representing employee metrics
Numerical value representing employee metrics
Categorical or demographic field
Categorical or demographic field
Categorical or demographic field

Aspect Checked	Observations
Missing Data	Some nulls found in promotion, salary and years columns
Duplicates	No duplicate Employee IDs found
Outliers	Few salary outliers detected in high-level positions
Incorrect Data Types	All columns have valid data types as per definitions
Consistency Issues	Some inconsistencies in categorical fields like department or region naming

Action Needed
Handle missing values using imputation or removal
No action required
Cap or treat outliers based on business logic
No action required
Standardize values for consistency across sheets

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

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