

## FUNCTIONAL REQUIREMENTS DOCUMENT (FRD)

### Project Title: HR Employee Attrition and Performance Analysis Dashboard

#### 2. Dashboard Sections

This project consists of four interactive dashboards, each designed to provide focused insights into specific aspects of employee data. The dashboards include workforce distribution, attrition, promotion & performance, and financial analysis.

Dashboard Section	Description
Overall Employee Insights	Provides an overview of total employees, gender distribution, regional workforce, and age demographics.
Attrition Analysis	Analyzes attrition rate, identifies high-risk departments, and tracks attrition patterns by experience and department.
Promotion & Performance Insights	Examines promotion rates, department-wise performance ratings, and identifies top-performing teams.
Financial Insights	Covers salary distribution, payroll cost, job-level income variations, and financial summaries across departments.

#### 3. Data Requirements

The following data fields and sources were required to create each dashboard section:

Dashboard Section	Data Fields Needed	Source
Overall Employee Insights	Employee ID, Gender, Age, Department, Region, Employment Status, Years at Company	Row Data, Employees, Departments, Regions
Attrition Analysis	Attrition Status, Department, Overtime,	Row Data, Employee Stats

Years at Company, Job Role		
Promotion & Performance Insights	Promotion Status, Performance Rating, Department, City, Job Role	Row Data, Employee Stats, Departments
Financial Insights	Monthly Income, Department, Job Level, Total Salary Spend, Region	Row Data, Employee Stats, Departments, Regions

#### 4. Filters / Slicers

- Department
- Region
- Gender
- City
- Job Level
- Age Group
- Attrition Status
- Promotion Status

#### 5. Visuals / Charts

Dashboard Section	Visual Type(s)
Overall Employee Insights	Bar Chart (Employee Count by Department), Donut Chart (Gender Distribution), Histogram (Age Distribution), Map (Regional Workforce Distribution), KPIs (Total, Active, Attrited Employees)
Attrition Analysis	Heatmap (Attrition by Department), Line Chart (Attrition vs Years), Bar Chart (% Attrition by Department), KPIs (Attrition Rate, Overtime %)
Promotion & Performance Insights	Donut Chart (Promotion %), Treemap (Promotions by Department), Bar Chart (Average Performance Rating by Department), KPIs (Avg Performance, Top Department)

Financial Insights	Box Plot (Income by Department), Bar Chart (Avg Income by Job Level), Pie Chart (Income Brackets %), Map (Payroll by Region), KPIs (Avg Income, Total Payroll, Employees)
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## 6. Interactivity

The dashboards support multiple interactive features for exploration:

- Drill-downs by department, region, and job role.
- Cross-filtering between charts (e.g., clicking department filters all visuals).
- Parameter-based filtering for dynamic insights (e.g., category-specific metrics).
- Navigation between dashboards using buttons or tabs.

## 7. Calculations / Measures

Calculation Name	Formula	Purpose
Attrition Rate	$\text{COUNT}(\text{Attrited Employees}) / \text{COUNT}(\text{Total Employees})$	To determine % of employees who left.
Promotion Rate	$\text{COUNT}(\text{Promoted Employees}) / \text{COUNT}(\text{Total Employees})$	To identify promotion trends.
Average Performance Rating	$\text{AVG}([\text{Performance Rating}])$	To measure departmental performance.
Average Monthly Income	$\text{AVG}([\text{Monthly Income}])$	To evaluate pay structure across roles.
Total Payroll Cost	$\text{SUM}([\text{Monthly Income}])$	To understand company-wide salary expenditure.

## 8. Notes / Special Instructions

- Use consistent color schemes across all dashboards (blue gradient for department-wise visuals).
- Ensure map visuals highlight major employee hubs (Delhi, Bengaluru, Pune, Hyderabad).
- Maintain alignment and equal spacing in dashboard layout for readability.
- KPIs should update dynamically based on filters.