**HR Analytics Documentation**

# **Instructions**

1. **Utilize the provided "HR\_Analytics" CSV file for this task:**

* Open the PowerBI application.
* Locate and load the "HR\_Analytics" CSV file into PowerBI.

1. **Create a PowerBI dashboard exclusively, and submit the finalized dashboard as a ".pbix" file:**

* Begin a new project in PowerBI, selecting the appropriate template for a dashboard.
* Design and configure the dashboard components according to the given specifications.
* Save the completed dashboard as a ".pbix" file for submission.

1. **Import the dataset into Power BI:**

* Use the PowerBI interface to import the "HR\_Analytics" dataset.
* Verify that the dataset is successfully loaded into Power BI.

1. **Familiarize yourself with the content of the "HR\_Analytics" data:**

* Review the dataset to understand the nature and structure of the information it contains.
* Identify key variables, data types, and any potential relationships within the dataset.

1. **Perform data cleaning in the Power Query Editor:**

* Access the Power Query Editor within Power BI.
* Address any data inconsistencies, missing values, or anomalies to ensure data integrity.
* Apply necessary transformations to enhance data quality.

1. **Eliminate any columns from the dataset that are not useful:**

* Identify and remove columns that do not contribute to the analysis or insights sought.
* Ensure that the dataset is streamlined to contain only relevant information.

1. **Generate diverse graphs using PowerBI, compile them onto a single page,** **and construct an interactive dashboard:**

* Create various types of graphs (e.g., bar charts, pie charts, line graphs) to represent different aspects of the data.
* Arrange the graphs on a single page to form a comprehensive dashboard.
* Implement interactive features such as tooltips or filters to enhance user engagement.

1. **The dashboard should include components such as a title, graphs, slicer, matrix or table, cards, and an interactive theme with a cohesive color combination:**

* Include visually appealing and informative graphs.
* Add a slicer for interactive data filtering.
* Integrate a matrix or table to present detailed data.
* Utilize cards to highlight key metrics.
* Ensure a consistent and visually pleasing theme and color scheme throughout the dashboard.

1. **Extract a minimum of 10 "Useful Insights" or "Key Performance Indicators" (KPIs) from the dashboard:**

* Identify and articulate at least 10 meaningful insights or KPIs derived from the data visualizations.
* These insights should provide valuable information for decision-making or understanding the dataset.

1. **Document all insights or KPIs in either WordPad, Notepad, PowerPoint, or within PowerBI. Submit this document along with the ".pbix" file for the dashboard:**

* Compile a document containing detailed descriptions of the identified insights or KPIs.
* Choose an appropriate platform (WordPad, Notepad, PowerPoint, or PowerBI itself) for documentation.
* Include this document along with the ".pbix" file when submitting the finalized dashboard.

# **New Attributes Names**

* **These are the attributes named that are changed for proper understanding**

1. EmpID -> EmployeeID
2. Attrition -> AttritionStatus
3. BusinessTravel -> BusinessTravelFrequency
4. Education -> EducationLevel
5. NumCompaniesWorked -> NumbersOfCompaniesWorked
6. YearsWithCurrManager -> YearsWithCurrentManager

# **Attributes Description**

1. **EmployeeID:**

* Unique identifier for each employee.

1. **Age:**

* Age of the employee.

1. **AgeGroup:**

* Categorization of age into groups (e.g., 18-25, 26-35).

1. **AttritionStatus:**

* Whether the employee has left the company (Yes) or not (No).

1. **BusinessTravelFrequency:**

* Frequency of business travel (e.g., Travel\_Rarely, Travel\_Frequently, Non-Travel).

1. **DailyRate:**

* Daily rate of pay for the employee.

1. **Department:**

* Department in which the employee works (e.g., Research & Development, Human Resources, Sales).

1. **DistanceFromHome:**

* Distance of the employee's home from the workplace.

1. **EducationLevel:**

* Level of education attained by the employee.

1. **EducationField:**

* Field of education of the employee.

1. **EmployeeCount:**

* Number of employees with the same set of attributes (seems to be 1 for all records).

1. **EmployeeNumber:**

* Unique numerical identifier for each employee.

1. **EnvironmentSatisfaction:**

* Satisfaction level of the employee with their work environment.

1. **Gender:**

* Gender of the employee.

1. **HourlyRate:**

* Hourly rate of pay for the employee.

1. **JobInvolvement:**

* Level of involvement the employee has in their job.

1. **JobLevel:**

* Level of the employee's job.

1. **JobRole:**

* Role or position of the employee in the company.

1. **JobSatisfaction:**

* Satisfaction level of the employee with their job.

1. **MaritalStatus:**

* Marital status of the employee.

1. **MonthlyIncome:**

* Monthly income of the employee.

1. **SalarySlab:**

* Categorization of monthly income into slabs (e.g., Upto 5k, 5k-10k).

1. **MonthlyRate:**

* Monthly rate of pay for the employee.

1. **NumbersOfCompaniesWorked:**

* Number of companies the employee has worked for.

1. **Over18:**

* Whether the employee is over 18 years old (Y or N).

1. **OverTime:**

* Whether the employee works overtime (Yes or No).

1. **PercentSalaryHike:**

* Percentage increase in salary.

1. **PerformanceRating:**

* Rating of the employee's performance.

1. **RelationshipSatisfaction:**

* Satisfaction level of the employee with their relationships at work.

1. **StandardHours:**

* Standard number of working hours.

1. **StockOptionLevel:**

* Level of stock options for the employee.

1. **TotalWorkingYears:**

* Total number of years the employee has been working.

1. **TrainingTimesLastYear:**

* Number of times the employee received training in the last year.

1. **WorkLifeBalance:**

* Level of balance between work and personal life for the employee.

1. **YearsAtCompany:**

* Number of years the employee has been with the current company.

1. **YearsInCurrentRole:**

* Number of years the employee has been in their current role.

1. **YearsSinceLastPromotion:**

* Number of years since the employee's last promotion.

1. **YearsWithCurrentManager:**

* Number of years the employee has been with their current manager.

# **Eliminated Columns**

* **These are the Eliminated Columns from the dataset as they may not contribute significantly to the analysis.**

1. **EmployeeCount:**

* This column has a constant value of 1 for all records, providing no meaningful variation.
* It doesn't contribute useful information for analysis.

1. **Over18:**

* If all employees are over 18 years old, this column does not provide any variability and, therefore, does not contribute to the analysis.

1. **StandardHours:**

* If all employees have the same standard number of working hours, this column does not provide meaningful information for analysis.

1. **EmployeeNumber:**

* Since EmployeeID serves as a unique identifier, having both EmployeeID and EmployeeNumber might be redundant.
* EmployeeID can be sufficient for identification purposes.

1. **EnvironmentSatisfaction, JobInvolvement, PerformanceRating, RelationshipSatisfaction:**

* Depending on the analysis focus, these columns might be considered for removal if they are not directly relevant to the specific analysis goals.

1. **StockOptionLevel:**

* This column represents the level of stock options granted to employees.
* If stock options are not a focus of the analysis, or if there's no need to differentiate between stock option levels, it may be removed for simplicity.

1. **WorkLifeBalance:**

* Depending on the analysis goals, if work-life balance is not a key factor being considered, this column might be removed to streamline the dataset.

1. **YearsInCurrentRole, YearsSinceLastPromotion, YearsWithCurrentManager:**

* If the analysis is not focused on aspects related to time spent in the current role, time since the last promotion, or years with the current manager, these columns may be removed to reduce complexity.

# **Removing Duplicates Rows**

* We are removing duplicate rows based on the unique Employee ID to ensures data integrity by eliminating redundant information, facilitating accurate analysis.
* This are the 10 duplicates rows Employee ID which we had removed :-

|  |  |
| --- | --- |
| RM1461 | RM1466 |
| RM1462 | RM1467 |
| RM1463 | RM1468 |
| RM1464 | RM1469 |
| RM1465 | RM1470 |