TABLEAU HR DASHBOARD TEST REPORT

Introduction:

In this report, we provide a comprehensive overview of the testing process conducted on the HR database, including the queries used, their titles, and the results obtained. The purpose of this report is to ensure the accuracy and reliability of the database's data and queries.

Test Queries:

Query Title: Total Number of Employees

- **Query Description**: Verify the total number of employees in the database.
- **select** sum(employee_count) **from** hrdata;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Total Number of Employees by Education Level

- **Query Description**: Confirm the total number of employees for each education level.
- **select** sum(employee_count) **from** hrdata **where** education = 'High School';
- **select** sum(employee_count) **from** hrdata **where** education = 'Associates Degree';
- **select** sum(employee_count) **from** hrdata **where** education = ‘Bachelor's Degree’;
- **select** sum(employee_count) **from** hrdata **where** education = ‘Master's Degree’;
- **select** sum(employee_count) **from** hrdata **where** education = ‘Doctoral Degree’;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Total Employees by Department

- **Query Description**: Ensure the total number of employees in each department is accurate.
- **select** sum(employee_count) **from** hrdata **where** department = 'HR';
- **select** sum(employee_count) **from** hrdata **where** department = 'R&D';
- **select** sum(employee_count) **from** hrdata **where** department = 'Sales';
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Total Employees by Education Field

- **Query Description**: Validate the total number of employees in each education field.
- **select** sum(employee_count) **from** hrdata **where** education_field = 'Medical';
- **select** sum(employee_count) **from** hrdata **where** education_field = 'Life Science';
- **select** sum(employee_count) **from** hrdata **where** education_field = 'Marketing';
- **select** sum(employee_count) **from** hrdata **where** education_field = 'Technical Degree';
- **select** sum(employee_count) **from** hrdata **where** education_field = 'Other';
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Total Number of Attritions

- **Query Description**: Check the total number of employees who have left the company.
- **select** count(attrition) **from** hrdata **where** attrition = 'yes';
- **select** count(attrition) **from** hrdata **where** attrition = 'yes' and education_field = 'medical' and department = 'sales' and gender = 'male';
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Attrition Rate

- **Query Description**: Calculate the attrition rate for the entire database.
- **select** (**select** count(attrition) **from** hrdata **where** attrition 'yes')/sum(employee_count) * 100 **from** hrdata;

- **select** (**select** count(attrition) **from** hrdata **where** attrition = ‘yes’ and department = 'sales')/sum(employee_count) * 100 **from** hrdata **where** department = 'sales';
- **select** (**select** count(attrition) **from** hrdata **where** attrition = ‘Yes’ and department = 'Sales' and education_field = ‘Medical’)/sum(employee_count) * 100 **from** hrdata **where** department = 'Sales' and education_field = ‘Medical’;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Active Employee Count

- **Query Description**: Determine the number of active employees (non-attrited).
- **select** sum(employee_count) - (**select** count(attrition) **from** hrdata **where** attrition = ‘yes’) **from** hrdata;
- **select** sum(employee_count) - (**select** count(attrition) **from** hrdata **where** attrition = ‘yes’and gender = 'Male') **from** hrdata **where** gender = 'Male';
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Average Age of Employees

- **Query Description**: Calculate the average age of all employees.
- **select** round(avg(age),0) as Age_average **from** hrdata;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Attrition by Gender

- **Query Description**: Analyze attrition rates by gender.
- **select** gender, count(attrition) **from** hrdata **where** attrition = 'Yes' **group** by gender **order** by count(attrition) desc;
- **select** gender, count(attrition) **from** hrdata **where** attrition = 'Yes' and education = 'High School' **group** by gender **order** by count(attrition) desc;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Department-wise Attrition

- **Query Description**: Evaluate attrition rates by department.
- **select** department, count(attrition) as department_wise_attrition, round((count(attrition) / (**select** count(attrition) **from** hrdata **where**

attrition = 'yes')) * 100, 2) as percentage **from** hrdata **where** attrition = 'Yes' **group** by department **order** by count(attrition) desc;

- **select** department, count(attrition) as male_attrition, round((count(attrition) / (**select** count(attrition) **from** hrdata **where** attrition = 'yes' and gender = 'Male')) * 100, 2) as percentage **from** hrdata **where** attrition = 'Yes' and gender ='Male' **group** by department **order** by count(attrition) desc;
- **select** department, count(attrition) as female_attrition, round((count(attrition) / (**select** count(attrition) **from** hrdata **where** attrition = 'yes' and gender = 'Female')) * 100, 2) as percentage **from** hrdata **where** attrition = 'Yes' and gender ='Female' **group** by department **order** by count(attrition) desc;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Education Field-wise Attrition

- **Query Description**: Examine attrition rates by education field.
- **select** education_field, count(attrition), round((count(attrition) / (**select** count(attrition) **from** hrdata **where** attrition = 'yes')) * 100, 2) as percentage **from** hrdata **where** attrition = 'Yes' **group** by education_field **order** by count(attrition) desc;
- **Result Status**: [✓] Pass [ ] Fail

Query Title: Employees by Age Group

- **Query Description**: Summarize the number of employees in different age **group**s.
- **select** age, sum(employee_count) as agewise_employees **from** hrdata **group** by age **order** by age
- **select** age, sum(employee_count) as agewise_employees **from** hrdata **where** department = 'Sales' **group** by age **order** by age
- **Result Status**: [✓] Pass [ ] Fail

Test Results:

All queries passed the test, demonstrating the accuracy and reliability of the HR database and its associated queries.

Conclusion:

The HR database and its queries have been thoroughly tested and have produced results consistent with our expectations. The data appears to be accurate and reliable, and the queries provide valuable insights into various aspects of the HR data, including attrition rates, departmental statistics, and demographic analysis.

Signature:

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