HR Analytics Project - Queries & DAX Measures

Calculated Columns (DAX)

```
1. Attrition Status (Yes/No → Numeric)
AttritionFlag = IF(HRData[Attrition] = "Yes", 1, 0)

2. Experience Level
ExperienceLevel =
SWITCH(TRUE(),
    HRData[YearsAtCompany] <= 2, "Junior",
    HRData[YearsAtCompany] <= 5, "Mid-level",
    HRData[YearsAtCompany] <= 10, "Senior",
    "Expert"
)
```

Measures (DAX)

```
1. Total Employees
TotalEmployees = COUNTROWS(HRData)

2. Attrition Rate
AttritionRate = DIVIDE(SUM(HRData[AttritionFlag]), COUNTROWS(HRData), 0)

3. Average Age of Employees
AverageAge = AVERAGE(HRData[Age])

4. Average Job Satisfaction
AvgJobSatisfaction = AVERAGE(HRData[JobSatisfaction])
```

Queries for Insights (SQL)

```
1. Employees by Department & Attrition
SELECT Department, COUNT(*) AS TotalEmployees,
       SUM(CASE WHEN Attrition = 'Yes' THEN 1 ELSE 0 END) AS AttritionCount
FROM HRData
GROUP BY Department;

2. Attrition by Age Group
SELECT
   CASE
      WHEN Age < 25 THEN 'Under 25'
      WHEN Age BETWEEN 25 AND 34 THEN '25-34'
      WHEN Age BETWEEN 35 AND 44 THEN '35-44'
      WHEN Age BETWEEN 45 AND 54 THEN '45-54'
      ELSE '55+'
   END AS AgeGroup,
   COUNT(*) AS Employees,
   SUM(CASE WHEN Attrition = 'Yes' THEN 1 ELSE 0 END) AS AttritionCount
FROM HRData
GROUP BY
   CASE
      WHEN Age < 25 THEN 'Under 25'
      WHEN Age BETWEEN 25 AND 34 THEN '25-34'
      WHEN Age BETWEEN 35 AND 44 THEN '35-44'
      WHEN Age BETWEEN 45 AND 54 THEN '45-54'
      ELSE '55+'
   END;

3. Job Role vs. Average Satisfaction
SELECT JobRole, AVG(JobSatisfaction) AS AvgSatisfaction
FROM HRData
GROUP BY JobRole;

4. Education Field vs Attrition
SELECT EducationField,
       COUNT(*) AS Employees,
       SUM(CASE WHEN Attrition = 'Yes' THEN 1 ELSE 0 END) AS AttritionCount
```

```
FROM HRData
GROUP BY EducationField;
```