

Case study goals

Primary goal: Monitor key HR metrics on employees.

Secondary goal: Understand what factors impact attrition.

Context

The leadership team at XYZ Labs is looking to have visibility on high-level metrics about the state of its employees. In particular, the organization is looking to understand the attrition at the company.

It's your job to explore the available data and calculate this key measure that will be used throughout the case study.

He wants 4 main page views such as [Overview](#), [Demographics](#), [Performance Tracker](#) and [Attrition](#).

So, **he** recommends speaking with **Ana** to get more information and insights about the project.

- They would like to see a visual of Total Employees, Active and Inactive Employees and %Attrition Rate
- They would like to start by analyzing their **hiring trends over time** to see where they see the biggest growth in new employees.
- They would like to see **Active Employees by Department and Job Role**
- They would like to know the **youngest and oldest employee** (Age) and distribution of age.
- They would like to see Employees by age and gender.
- They would like to know about Employees by Marital Status quantity and %.
- They would like to identify the Average salary of employees by ethnicity.
- Now the HR team would like to have a view where they can continually track an individual employee's performance scores based on their yearly performance reviews.
 - They want to filter the performance by employee's name
 - See the Hire Date as Start Date
 - See the last review date
 - See the next review date
- Again, the HR team wants to see the performance tracker but about the review ratings.
 - They would like to see **by YEAR:**
 - Job satisfaction.
 - Relationship satisfaction
 - Self-rating
 - Environment satisfaction
 - Work like balance.
 - Manager rating
- They would like to see the **% Attrition Rate**
- They would like to know about **% Attrition Rate for each department and job role**
- Now they would like to understand the attrition rate based on **HireDate**
- They want to see %Attrition Rate and Total Employees for Business Travel (Attrition by Travel Frequency)
- % Attrition Rate by Overtime Requirement(Y/N)

- % Attrition Rate base on years working for XYZ Labs, chart called **“Attrition by Tenure”**

Reminder: Employee attrition, also known as employee churn or turnover, refer to employees leaving an organization for any reason (voluntary or involuntary).

..After some meetings... you identified some and created new metrics with Ana... and finally, after talking to database management John, you identified where the data in the CRM comes from...

Organizing and mapping information

Mesures

1. TotalEmployees
2. ActiveEmployees and Inactive Employees
3. % Attrition Rate
4. TotalEmployees Date
5. AgeBins (DAX)
6. AverageSalary
7. FullName (Power Query Merge)
8. LastReviewDate
9. NextReviewDate
10. JobSatisfaction
11. EnviromentSatisfaction
12. RelationshipSatisfaction
13. WorkLifeBalance
14. SelfRating
15. ManagerRating
16. % Attrition Rate Date

The Dataset

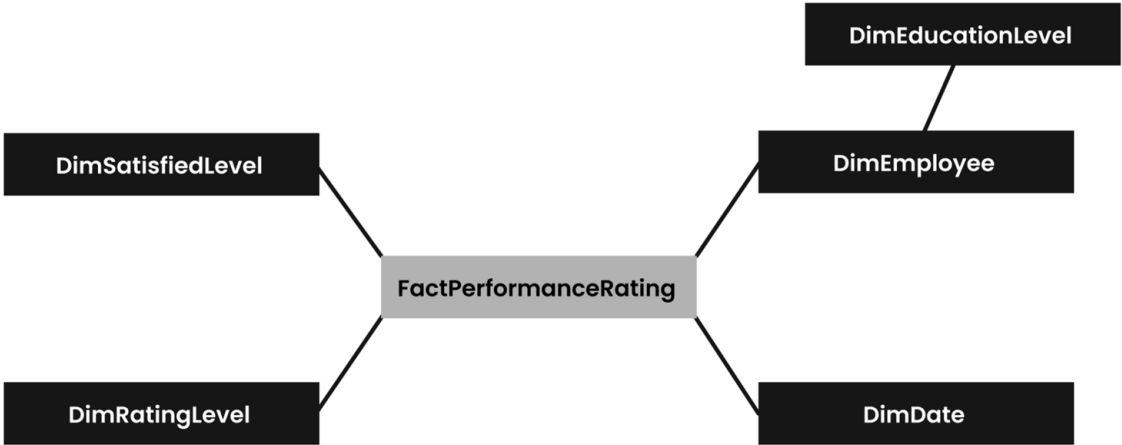
Dimension Tables

- Employee
- EducationLevel
- RatingLevel
- SatisfiedLevel
- Date

Fact Table

- Perfomance

Snowflake schema



Metada/Data Dictionary

Education Level		
Column	Description	Datatype
EducationLevelID	A unique ID that connects to Education in DimEmployee.	number
EducationLevel	Provides meaning to the education level: Doctorate, Masters, Bachelors, High School, and No Formal Qualifications.	text

Rating Level		
Column	Description	Datatype
RatingID	A unique ID that connects to SelfRating and ManagerRating in FactPerformanceRating	number
RatingLevel	Provides meaning to the rating level: Above and Beyond, Exceeds Expectation, Meets Expectation, Needs Improvement, and Unacceptable.	text

Satisfied Level		
Column	Description	Datatype
SatisfactionID	A unique ID that connects to EnvironmentSatisfaction, JobSatisfaction, RelationshipSatisfaction, and Work-Life Balance in FactPerformanceRating.	number
SatisfactionLevel	Provides meaning to the satisfaction level: Very Satisfied, Satisfied, Neutral, Dissatisfied, and Very Dissatisfied	text

Employee

Column	Description	Datatype
EmployeeID	A unique ID that identifies an employee.	text
FirstName	First name of an employee.	text
LastName	Last name of an employee.	text
Gender	Self-defined employee gender identity.	text
Age	Current age of an employee.	number
BusinessTravel	Frequency of business travel - three categories: Frequent Traveller, Some Travel, and No Travel.	text
Department	Department an employee works in - three categories: Technology, HR, and Sales.	text
DistanceFromHome	Kilometer distance between an employee's home and their office.	number
State	State where the employee lives.	text
Ethnicity	Self-defined employee ethnicity.	text
Education	Education level for employees'. Connects to DimEducationLevel.	number
EducationField	Employee field of study.	text
Job Role	Current/latest employee job role.	text
MaritalStatus	Current/latest employee marital status.	text
Salary	Current/latest employee salary.	number
StockOptionLevel	The banding level for stock options that the employee has.	number
Overtime	Contains "Yes" and "No" to indicate whether an employee is expected to work overtime in their role.	text
HireDate	Date the employee joined the company.	date
Attrition	Contains "Yes" and "No" to indicate whether an employee has left the organization.	text
YearsAtCompany	Number of years since the employee joined the organization.	number
YearsInMostRecentRole	Number of years the employee has been in their most recent role.	number
YearsSinceLastPromotion	Number of years since the employee last got promoted.	number
YearsWithCurrManager	Number of years the employee has been with their current manager	number

Performance

Column	Description	Datatype
PerformanceID	A unique ID that identifies an individual performance review.	text
EmployeeID	A unique ID that identifies an employee. Connects to DimEmployee.	text
ReviewDate	Date an employee's review took place.	date
EnvironmentSatisfaction	Rating for employees' satisfaction with their environment. Connects to DimSatisfiedLevel.	number
JobSatisfaction	Rating for employees' satisfaction with their job role. Connects to DimSatisfiedLevel.	number
RelationshipSatisfaction	Rating for employees' satisfaction with their relationships at work. Connects to DimSatisfiedLevel.	number
WorkLifeBalance	Rating for employees' satisfaction with their work-life balance. Connects to DimSatisfiedLevel.	number
SelfRating	Rating for employees' performance based on their own view. Connects to DimRatingLevel.	number
ManagerRating	Rating for employees' performance based on their manager's view. Connects to DimRatingLevel.	number
TrainingOpportunitiesWithinYear	Number of training opportunities offered in the last 12 months.	number
TrainingOpportunitiesTaken	Number of training opportunities taken.	number