# Synoptic Project – Power BI

## Scenario

The HR (Human Resource) department is the heart of every organization. From recruitment to compensation to performance appraisal and employee wellbeing, the HR department plays several roles in the enterprise. HR acts as a mediator or a bridge between the employees and the management or enterprise. It's no surprise that the HR department is already burdened with work. Providing them access to the latest technology and the means to derive insights in real time will help reduce the workload and create a healthy environment throughout the organization.

## Problem Statement

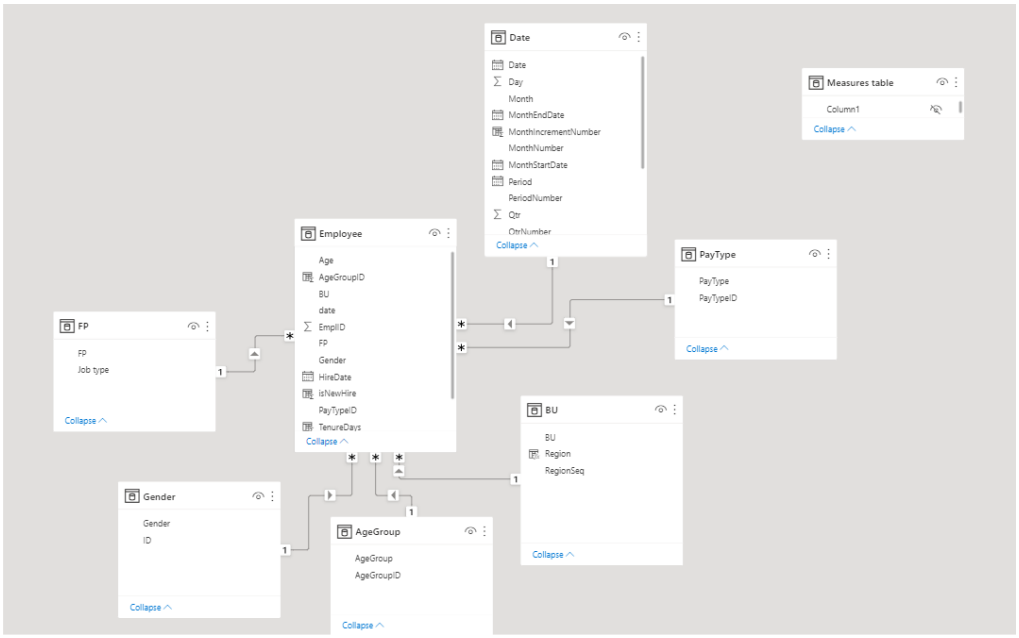
Market fluctuations and rapidly changing technology have affected the global market. Many published reports showed that around half of the employees wanted to change jobs. While some market researchers said that flexible working and job security were their primary factors, few admitted that a higher salary was their aim.

Different regions saw an increase and a decrease in salaries over the years. While the increase was to retain top-level professional employees, the pay cuts were due to market fluctuations and were resorted after the market conditions improved. HR people across the globe are hiring new employees, trying to retain and understand the needs of employees who got separated (those who left the company).

So, how does the HR department make these decisions in volatile market conditions? They rely on HR analytics to understand the existing situation and develop a new modern approach. For this requirement, you have been asked in your company to build a dashboard in Power BI considering the following challenges of HR people and provide an effective way to find the answers to their day-to-day questions.

## Tasks

1. Use the HR data set provided for this project and analyze that to understand the data and terms.
2. Load data into the Power BI Query Editor and perform the required actions.
3. Establish the required relationships




## Manage relationships

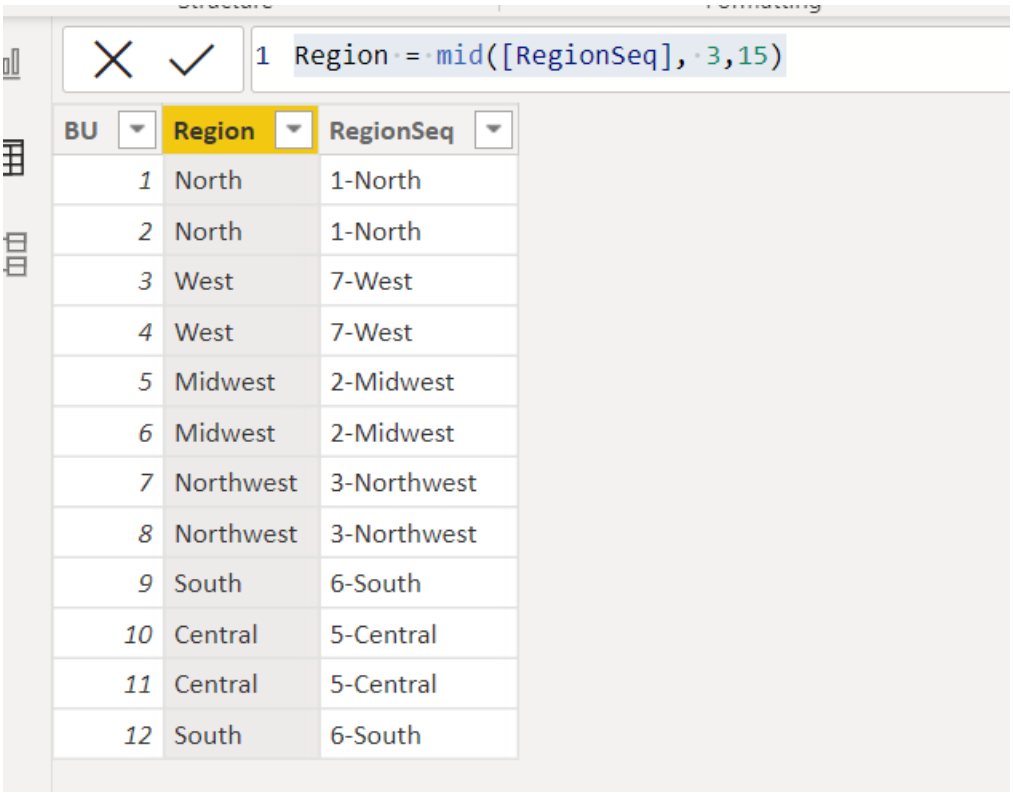
| Active | From: Table (Column) | To: Table (Column) |
|---|---|---|
| ☑ | Employee (AgeGroupID) | AgeGroup (AgeGroupID) |
| ☑ | Employee (BU) | BU (BU) |
| ☑ | Employee (date) | Date (Date) |
| ☑ | Employee (FP) | FP (FP) |
| ☑ | Employee (Gender) | Gender (ID) |
| ☑ | Employee (PayTypeID) | PayType (PayTypeID) |

New... Autodetect... Edit... Delete

4. Create the required DAX columns and measures to calculate the below things

a. Create the below-calculated column in the BU table:

Region = mid([RegionSeq], 3,15)




| BU | Region | RegionSeq |
|---|---|---|
| 1 | North | 1-North |
| 2 | North | 1-North |
| 3 | West | 7-West |
| 4 | West | 7-West |
| 5 | Midwest | 2-Midwest |
| 6 | Midwest | 2-Midwest |
| 7 | Northwest | 3-Northwest |
| 8 | Northwest | 3-Northwest |
| 9 | South | 6-South |
| 10 | Central | 5-Central |
| 11 | Central | 5-Central |
| 12 | South | 6-South |

b. Create the below columns in the Employee table:

i. AgeGroupID = IF([Age]<30, 1, IF([Age]<50, 2, 3))

ii. isNewHire = IF(YEAR([date]) = YEAR([HireDate]) && MONTH([date])=MONTH([HireDate]), 1)

iii. TenureDays = IF([date]-[HireDate]<0,[HireDate]-[date],[date]-[HireDate])

c. Create a measures into Employee table

i. Create a new Measure **EmpCount**

```
EmpCount = CALCULATE(COUNT(Employee[EmplID]),
FILTER(ALL('Date'[PeriodNumber]), 'Date'[PeriodNumber] =
MAX('Date'[PeriodNumber])))
```

ii. Create a Measure for **Active Employees**

```
Actives = CALCULATE([EmpCount], FILTER(Employee, ISBLANK(Employee[TermDate])))
```

iii. Create a Measure called New Hires, which will have the sum of the new **NewHire** in the **Employee** table**.**

iv. Create a Measure called **Separations**.

```
Separations = CALCULATE(COUNT(Employee[EmplID]), FILTER(Employee,
NOT(ISBLANK(Employee[TermDate]))))
```

v. Create a Measure called AVG Tenure Days which has an average column **TenureDays** from **Employee** table.

vi. Create a Measure called **AVG Tenure Months**.

```
AVG Tenure Months = ROUND([AVG Tenure Days]/30, 1)-1
```

vii. Create a Measure called **Female Emp Actives.**

```
Female Emp Actives = CALCULATE([Actives],Gender[Gender]=”Female”)
```

viii. Create a Measure called **Female New Hires** using **New Hires**.

ix. Create a Measure called **Female Separationss**

```
Female Separationss = CALCULATE([Separations],Gender[Gender]="Female")
```

x. Create a Measure called **Male Actives**

```
Male Actives = CALCULATE([Actives],Gender[Gender]="Male")
```

xi. Create a Measure called **Male New Hires**

```
Male New Hires = CALCULATE([New Hires],Gender[Gender]="Male")
```

xii. Create a Measure called **Male Separations**

```
Male Separations =
CALCULATE([Separations],Gender[Gender]="Male")
```

5. Based on the below design, create the report in Power BI.

6. After developing this, save your file as “FinalProject_YourName.pbix”.