HR Analytics - DAX Practice Exercises

1. Top Performer Identification by Department

```
Measure: Top Performer by Dept = VAR TopEmp = MAXX ( TOPN ( 1, ADDCOLUMNS ( VALUES ( HR_Analytics[Employment_id] ), "Perf", MAX ( HR_Analytics[Performance_Score] ) ), [Perf], DESC ), HR_Analytics[Employment_id] ) RETURN TopEmp
```

2. Year-over-Year Promotion Growth

```
YoY Promotion Growth % = VAR CurrentPromotions = CALCULATE ( COUNTROWS ( HR_Analytics ), USERELATIONSHIP ( HR_Analytics[Hire_Date], 'Date'[Date] ) ) VAR PrevPromotions = CALCULATE ( [CurrentPromotions], DATEADD ( 'Date'[Date], -1, YEAR ) ) RETURN DIVIDE ( CurrentPromotions - PrevPromotions, PrevPromotions )
```

3. Average Salary of Employees Who Resigned Within 2 Years

```
Avg Salary Resigned <=2Y = CALCULATE ( AVERAGE ( HR_Analytics[Monthly_Salary] ), HR_Analytics[Status] = "Resigned", HR_Analytics[Years_at_company] <= 2 )
```

4. Rank Employees by Satisfaction Score Within Department

```
Calculated Column: Rank Satisfaction = RANKX ( FILTER ( HR_Analytics, HR_Analytics[Department] = EARLIER ( HR_Analytics[Department] ) ), HR_Analytics[Employee_Satisfaction_Score], , DESC )
```

5. Correlation Between Training Hours and Performance

```
Correlation = VAR AvgX = AVERAGE ( HR_Analytics[Training_Hours] ) VAR AvgY = AVERAGE ( HR_Analytics[Performance_Score] ) VAR Numerator = SUMX ( HR_Analytics, ( HR_Analytics[Training_Hours] - AvgX ) * ( HR_Analytics[Performance_Score] - AvgY ) ) VAR Denom = SQRT ( SUMX ( HR_Analytics, ( HR_Analytics[Training_Hours] - AvgX ) ^ 2 ) * SUMX ( HR_Analytics, ( HR_Analytics[Performance_Score] - AvgY ) ^ 2 ) ) RETURN DIVIDE ( Numerator, Denom )
```

6. % of Employees Doing Remote Work Frequently

```
% Frequent Remote Workers = DIVIDE ( CALCULATE ( COUNTROWS ( HR_Analytics ), HR_Analytics[Remote_Work_Frequency] IN { "Weekly", "Daily" } ), COUNTROWS ( HR_Analytics ) )
```

7. Employees With Consistently High Performance Over Tenure

```
Consistent High Performer = IF ( MIN ( HR_Analytics[Performance_Score] ) >= 4, "Yes", "No" )
```

8. Department-Wise Salary Budget Utilization

```
Salary Utilization % = VAR DeptSalary = SUM ( HR_Analytics[Monthly_Salary] ) VAR DeptBudget = RELATED ( DeptBudget[Budget] ) RETURN DIVIDE ( DeptSalary, DeptBudget )
```

9. Attrition Risk Index

```
Attrition Risk = IF ( HR_Analytics[Employee_Satisfaction_Score] < 3 && HR_Analytics[Overtime_Hours] > 10 && HR_Analytics[Sick_Days] > 5, "High", IF ( HR_Analytics[Employee_Satisfaction_Score] < 4, "Medium", "Low" ) )
```

10. Identify Overworked but Unpromoted Employees

```
Overworked Unpromoted = CALCULATE ( COUNTROWS ( HR_Analytics ),
HR_Analytics[Work_Hours_per_Week] > 45, HR_Analytics[Overtime_Hours] > 5,
HR_Analytics[Promotions] = 0 )
```