**Industry Assignment – 1: Employee Attrition and Satisfaction Analysis**

**Time: 15 hours**

The HR Leads of a software product-based company wants to analyze and generate periodic reports based on Employee data collected from their portal. Assume that you have been hired as an analyst within the team to analyze the employee dataset and to generate periodic excel reports to the management based on Employee satisfaction and attrition.

Download the sample dataset “HR Employee Attrition.csv” and prepare your excel workbook to fulfill the requirement of the management.

The dataset “HR Employee Attrition.csv” contains 36 columns and 1470 records.

Along with other columns certain fields/columns have numeric values related to the rating/meaning of certain criteria which are listed below:

**Education**

|  |  |
| --- | --- |
| **Qualification ID** | **Qualification Level** |
| 1 | Below College |
| 2 | College |
| 3 | Bachelor |
| 4 | Master |
| 5 | Doctor |

**EnvironmentSatisfaction**

|  |  |
| --- | --- |
| **Work Environment Satisfaction ID** | **Work Environment Satisfaction Level** |
| 1 | Low |
| 2 | Medium |
| 3 | High |
| 4 | Very High |

**JobInvolvement**

|  |  |
| --- | --- |
| **Job Involvement Level ID** | **Job Involvement Level** |
| 1 | Low |
| 2 | Medium |
| 3 | High |
| 4 | Very High |

**JobSatisfaction**

|  |  |
| --- | --- |
| **Job Satisfaction ID** | **Job Satisfaction Level** |
| 1 | Low |
| 2 | Medium |
| 3 | High |
| 4 | Very High |

**PerformanceRating**

|  |  |
| --- | --- |
| **Performance Rating** | **Performance Level** |
| 1 | Low |
| 2 | Good |
| 3 | Excellent |
| 4 | Outstanding |

**RelationshipSatisfaction**

|  |  |
| --- | --- |
| **Relationship Satisfaction ID** | **Relationship Satisfaction Level** |
| 1 | Low |
| 2 | Medium |
| 3 | High |
| 4 | Very High |

**WorkLifeBalance**

|  |  |
| --- | --- |
| **Work-Life Balance Level** | **Work-Life Balance Measure** |
| 1 | Bad |
| 2 | Good |
| 3 | Better |
| 4 | Best |

**Assigned Tasks:**

You need to perform the following activities and create a workbook to generate a comprehensive report for the management.

1. Open a new workbook and load the dataset as given in the “HR Employee Attrition.csv” file.
2. Create a worksheet and create reference tables as given above having columns related to the ratings and their respective values. Example:

**Education:**

|  |  |
| --- | --- |
| 1 | Below College |
| 2 | College |
| 3 | Bachelor |
| 4 | Master |
| 5 | Doctor |

Apply the function **VLOOKUP** and join to convert the numeric values with their corresponding text values from the original table and the tables created above in a new separate worksheet.

3. Create separate worksheets to generate pivot tables to achieve the following reports using the original table loaded.

i) Sum of monthly income, average job satisfaction as per Job Role and Education Field.

Map the pivot table generated to suitable chart/graphs.

ii) Gender wise, job role wise average JobSatisfaction and Environment satisfaction.

Map the pivot table generated to suitable chart/graphs.

iii) EducationField wise, JobRole wise average Hourly Rate, average monthlyincome,

average JobSatisfaction. . Map the pivot table generated to suitable chart/graphs.

iv) Department wise, gender wise average job satisfaction. Map to suitable charts/graphs.

v) Find average breakdown of average DistanceFromHome related to gender, department

and JobRole.

vi) Find average monthly income by education and attrition.

4. Prepare an interactive dashboard using the pivot tables/charts created above. Add necessary interactivity to the dashboard.

5. Perform What-If Analysis using the dataset to seek the effect of attrition by changing the key values of the necessary fields. [ Assume considering DistanceFromHome, MonthlyIncome, JobSatisfaction, PercentSalaryHike, etc., to deduce the result.]

6. Perform regression analysis to find out relationship between fields like YearsAtCompany, YearsInCurrentRole, YearsSinceLastPromotion, YearsWithCurrManager, JobSatisfaction and attrition. [ You may assume Yes. No in attrition as 1,0 if required.]

N.B:

1. The entire work should be done on a single WorkBook. Name the workbook as DIY2\_YourName. Please create separate worksheets for different questions and criteria. Rename worksheet with QNo and logical relevant names.

2. To explain certain conditions (if required) create a word document and explain with reference to QNo and relevant worksheet name.

3. Create .zip/7z file with the workbook and the document(s) created. Upload the .zip/7z file to submit.