**Cleaning Data**

**Duplicate Check**:

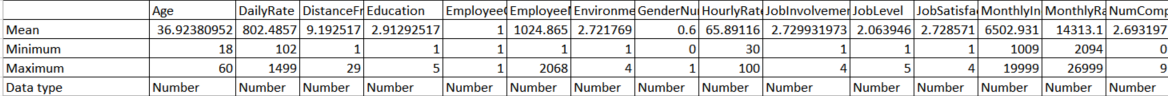
In pivot table drag and drop employee number, count of employee number is not greater than 1, so no duplicate found.

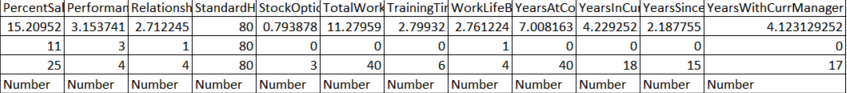
**Missing Value**:

Validated through ISBLANK function, no missing is there.

Validated through Filter in Data tab, no blank is found.

**Data Consistency Check for Numerical data types:**





**Changed Data types as Number and Text**:

Did One-Hot-Encoding for Gender column

|  |  |
| --- | --- |
| **Number Data Type Columns** | **Text Data Type Columns** |
| Age | Attrition |
| DailyRate | BusinessTravel |
| DistanceFromHome | Department |
| Education | EducationField |
| EmployeeCount | Gender |
| EmployeeNumber | JobRole |
| EnvironmentSatisfaction | MaritalStatus |
| GenderNumerical | Over18 |
| HourlyRate | OverTime |
| JobInvolvement |
| JobLevel |
| JobSatisfaction |
| MonthlyIncome |
| MonthlyRate |
| NumCompaniesWorked |
| PercentSalaryHike |
| PerformanceRating |
| RelationshipSatisfaction |
| StandardHours |
| StockOptionLevel |
| TotalWorkingYears |
| TrainingTimesLastYear |
| WorkLifeBalance |
| YearsAtCompany |
| YearsInCurrentRole |
| YearsSinceLastPromotion |
| YearsWithCurrManager |

**Basic Check:**

Spell check, Data Standards, removed all rows - "Over 18," "Employment Count," and "Standard Hours." Has only one unique values.

**Creating Data Insights**

Employee Left company more are Single Status

|  |  |  |
| --- | --- | --- |
| **Marital Status** | **Single** | **Married** |
|  | **Sum of MonthlyRate** | **Sum of MonthlyRate** |
| Attrition - No | 5172746 | 8258304 |
| Attrition - Yes | 1736168 | 1193646 |
| **Grand Total** | **6908914** | **9451950** |

Single employee who left company received Monthly Income or compensations are **5 times** less than Single employee stayed at company.

Married employee who left company received Monthly Income or compensations are **8 times** less than Married employee stayed at company.

More Employee with 1, 3 Job Satisfaction rating (around 5%) left company than 2 and 4 Job satisfaction rating.

As Salary hike increases then employee leaving company decreases. This has Negative Correlation.

%

This Pie chart shows work life balance for employees who left company. The work life balance between 2 and 3 level (78%) left company more than other levels.

Employee leaving company are more for people got promotion in last 4 years.

Age between 24 to 37, employee leaving company is more.

|  |  |  |  |
| --- | --- | --- | --- |
| **Travel/Attrition** | **No** | **Yes** | **Grand Total** |
| Non-Travel | 138 | 12 | 150 |
| Travel\_Frequently | 208 | 69 | 277 |
| Travel\_Rarely | 887 | 156 | 1043 |
| **Grand Total** | **1233** | **237** | **1470** |

Employee those who had business travel rarely has left office more than employee travelled frequently.

Employee with Job Level 1 left company more than other levels also top 3 Job Role of employees who left company are Laboratory Technician, Research Scientist, Sales Representative.

|  |  |
| --- | --- |
| **Department** | **Attrition Yes Count** |
| Human Resources | 12 |
| Research & Development | 133 |
| Sales | 92 |
| **Grand Total** | **237** |

These 3 levels are in Research Development and Sales Department. Employees left company more from R & D Department.

Male Employee with less Job involvement has left company more than female employees.