**HR DATA ANALYSIS**

**Problem Statement:**

To conduct a comprehensive analysis of the employee data to gain valuable insights to answer business questions and present the same using Microsoft Excel.

**Business Requirements:**

1. Total attrition and attrition rate.
2. Job satisfaction rating out of 4.
3. Gender distribution across the company.
4. Attrition by education level and how it is dependent on other KPIs like gender, department and education field.
5. Attrition by job role and how it is dependent on other KPIs like gender, department and education field.
6. Attrition by department and how it is dependent on other KPIs like gender and education field.
7. Attrition by age group and how it is dependent on other KPIs like gender, department and education field.
8. Attrition by marital status and how it is dependent on other KPIs like gender, department and education field.

**Steps Followed:**

1. Data was cleaned by removing null and duplicate values.
2. A pivot table was created on a new worksheet from the entire table and important KPIs such as total employees, attrition count, average age, active employees and attrition rate were calculated. Active employees was calculated by subtracting attrition count from total employees and attrition rate was calculated by dividing attrition count by total employees.
3. A slicer was added to filter data by gender.
4. Average age was changed from decimal to whole number
5. The KPIs were then transferred to the dashboard.
6. Average job satisfaction rating was inserted into the pivot table and a donut chart was created to visualize it. The pivot table was inserted into the dashboard.
7. The no of male and female employees were calculated and their respective percentages were added to the dashboard represented using donut charts.
8. A slicer for gender was also added.
9. A pivot chart was created to calculate attrition by education level and a column chart was plotted to visualize the findings and was added to the dashboard.
10. Another pivot chart was created to calculate attrition by job role, visualized by a column chart and added to the dashboard.
11. Now, a pivot table was created to calculate attrition by department, a pie chart was used to visualize it and inserted into dashboard.
12. Again, a pivot table was created to calculate attrition by age group, a bar chart was used to visualize it and inserted into dashboard.
13. Again, a pivot table was created to calculate attrition by marital status, a donut chart was used to visualize it and inserted into dashboard.
14. Lastly, 3 slicers were added for department, gender and education and their connections were changed to all from report connections so that user can filter out data according to his/her convenience.
15. Finally, dashboard was completed.

**Key Findings:**

1. A total of **237** employees left the company and the attrition rate was of **16%.**
2. Job satisfaction was rated **2.6** out of **4**.
3. The company has **male** employees as the **majority** **(60%)** while their **female** counterparts make up the rest **40%**.
4. Employees mostly with **Bachelor’s Degree** have left their jobs. This might be due to them finding better opportunities or pursuing higher education.
5. **Laboratory technician** is the role with the highest amount of attrition followed closely by Sales executive and research scientist.
6. The **R&D department** has the highest attrition followed by Sales. HR has a very minimal attrition percentage.
7. Generally, younger people are more likely to leave their jobs especially those in the age group of **25-34**. Older people are more likely to stay back with the company.
8. Mostly single people leave their jobs followed closely by married. Divorced people are way less in percentage of attrition although their total percentage amongst the employees is also less so it is incorrect to draw such conclusions as divorced people are less likely to leave.