Trainity Project 4

Project Description

The objective of this project is to analyze the hiring process data of a multinational company, such as Google, in order to gain meaningful insights that can help improve the company's hiring process. The project aims to explore trends in gender distribution of hires, average salary offered, salary distribution, departmental proportions, and position tier distribution within the company.

Approach

My approach to the project:

- Obtained the hiring process dataset provided containing information about hires, salaries, genders, departments, and position tiers.
- Opened the dataset in Excel to get a sense of its structure, columns, and initial data quality. Identified missing values across columns.

- Carried out the following tasks :
    i. Gender Distribution: Used the COUNTIFS function in Excel to calculate the number of males and females hired, providing insights into gender diversity.

    ii. Average Salary: Calculated the average salary offered using the AVERAGE function, offering an overview of compensation trends.

    iii. Salary Distribution: Created class intervals for salaries and used the FREQUENCY function to determine the distribution across these intervals.

    iv. Departmental Analysis: Constructed a table to count employees in each department and visualized proportions using a pie chart.

    v. Position Tier Analysis: Created a table to count employees in different position tiers and visualized the data with a bar graph.

Tech-Stack Used

Microsoft Excel - Excel was the primary software used for data manipulation, analysis, and visualization due to its familiarity and versatility in handling tabular data. Its functions and features were employed for calculations, data cleaning, and creating visualizations. Excel's built-in functions, such as COUNTIFS, AVERAGE, and FREQUENCY, were extensively used for various calculations

Insights

The key insights and knowledge I gained during the project:

- Hiring Analysis: The analysis revealed a nearly balanced distribution between males and females, showcasing an inclusive hiring approach.
- Salary Analysis: The average salary offered by the company is competitive, suggesting the company's commitment to attracting top talent.
- Salary Distribution: The salary distribution follows a relatively normal distribution pattern.
- Departmental Proportions: The visualization of departmental proportions through the pie chart indicated that different departments contribute significantly to the company's workforce.
- Position Tier Distribution: There is a balanced representation across different tiers, suggesting opportunities for growth and progression

Result

Through this project, I successfully conducted a comprehensive analysis of the hiring process data for a multinational company and gained valuable insights into various aspects of the company's hiring practices. It deepened my understanding of hiring process analytics by providing hands-on experience in handling real-world data, identifying trends, and extracting actionable insights. It highlighted the crucial role of data analysis in enhancing business processes and informed decision-making in an organizational context.

Excel sheet link - Excel_P4.xlsx

Tasks :

A. Hiring Analysis: The hiring process involves bringing new individuals into the organization for various roles.
Your Task: Determine the gender distribution of hires. How many males and females have been hired by the company?

Gender	Hiring Count
Male	2563
Female	1856

B. Salary Analysis: The average salary is calculated by adding up the salaries of a group of employees and then dividing the total by the number of employees.
Your Task: What is the average salary offered by this company? Use Excel functions to calculate this.

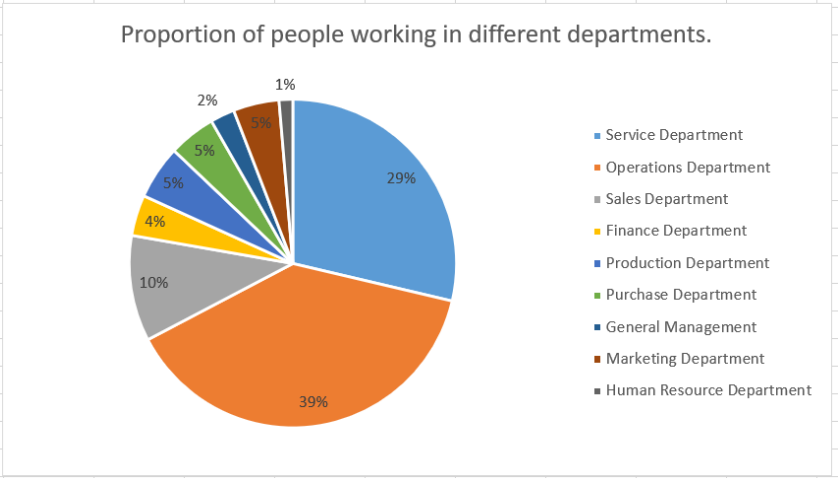
Average Salary	49983

C. Salary Distribution: Class intervals represent ranges of values, in this case, salary ranges. The class interval is the difference between the upper and lower limits of a class.
Your Task: Create class intervals for the salaries in the company. This will help you understand the salary distribution.

Salary Range	Upper Limit	Frequency of salary
0-25000	25000	1758
25001-50000	50000	1854
50001-75000	75000	1796
75001-100000	100000	1756
100001-200000	200000	1
200001-300000	300000	1
300001-400000		1

D. Departmental Analysis: Visualizing data through charts and plots is a crucial part of data analysis.
Your Task: Use a pie chart, bar graph, or any other suitable visualization to show the proportion of people working in different departments.

Department	Count
Service Department	2055
Operations Department	2771
Sales Department	747
Finance Department	288
Production Department	380
Purchase Department	333
General Management	172
Marketing Department	325
Human Resource Department	97



E. Position Tier Analysis: Different positions within a company often have different tiers or levels.
Your Task: Use a chart or graph to represent the different position tiers within the company. This will help you understand the distribution of positions across different tiers.

Post Name	Count
b9	463
c5	1747
c8	320
c9	1792
c-10	232
i1	222
i4	88
i5	787
i6	527
i7	982
m6	3
m7	1
n6	1
n9	1
n10	1