HIRING PROCESS ANALYTICS

Submitted By: - Kartikey Shukla

Project Description

This project is about analyzing the hiring process of a company. The goal is to gain insights into the trends surrounding the hiring process such as the number of rejections, number of interviews, types of jobs, and vacancies. The data given consists of records of people who registered for a particular post in a department of the company.

To handle the data, the steps of Exploratory Data Analysis (EDA) will be followed, including understanding the data columns and data, checking for missing data, clubbing columns with multiple categories, checking for outliers, removing outliers, and drawing a data summary.

Using the data and the results of the EDA, the following insights will be gained:

- The number of males and females hired.
- The average salary offered in the company.
- The class intervals for salary in the company.
- The proportion of people working in different departments through a pie chart or bar graph.
- The representation of different post tiers using a chart or graph.

The results of the analysis will be reported to the hiring department to provide them with valuable insights for improving their hiring process.

Approach

The approach taken towards this project was to first perform Exploratory Data Analysis (EDA) on the given dataset of the company's hiring records. The EDA process involved understanding the data columns and data, checking for missing data, clubbing columns with multiple categories, checking for outliers, removing outliers, and drawing a data summary.

Excel or Google Sheets was used to perform the EDA and answer the questions given in the project description. The steps included creating pivot tables to count the number of males and females hired, calculate the average salary offered in the company, and represent different post tiers.
Class intervals for salary were determined by finding the range of salary data and dividing it into the desired number of intervals. Charts and graphs were used to visualize the data, including a pie chart or bar graph to show the proportion of people working in different departments.

The results of the analysis were used to gain insights into the trends surrounding the company's hiring process and provide valuable information to the hiring department for improvement.

Tech-Stack Used

The technology stack used for this project is Excel or Google Sheets.

The purpose of using this technology was to perform the Exploratory Data Analysis (EDA) and answer the questions given in the project description.

Excel or Google Sheets was used because of its powerful data analysis and visualization capabilities, which allowed for easy and efficient manipulation of the data and creation of charts and graphs to visualize the results.

The software also had built-in functions and formulas that were used to perform calculations and summarize the data, making it a suitable choice for this project.

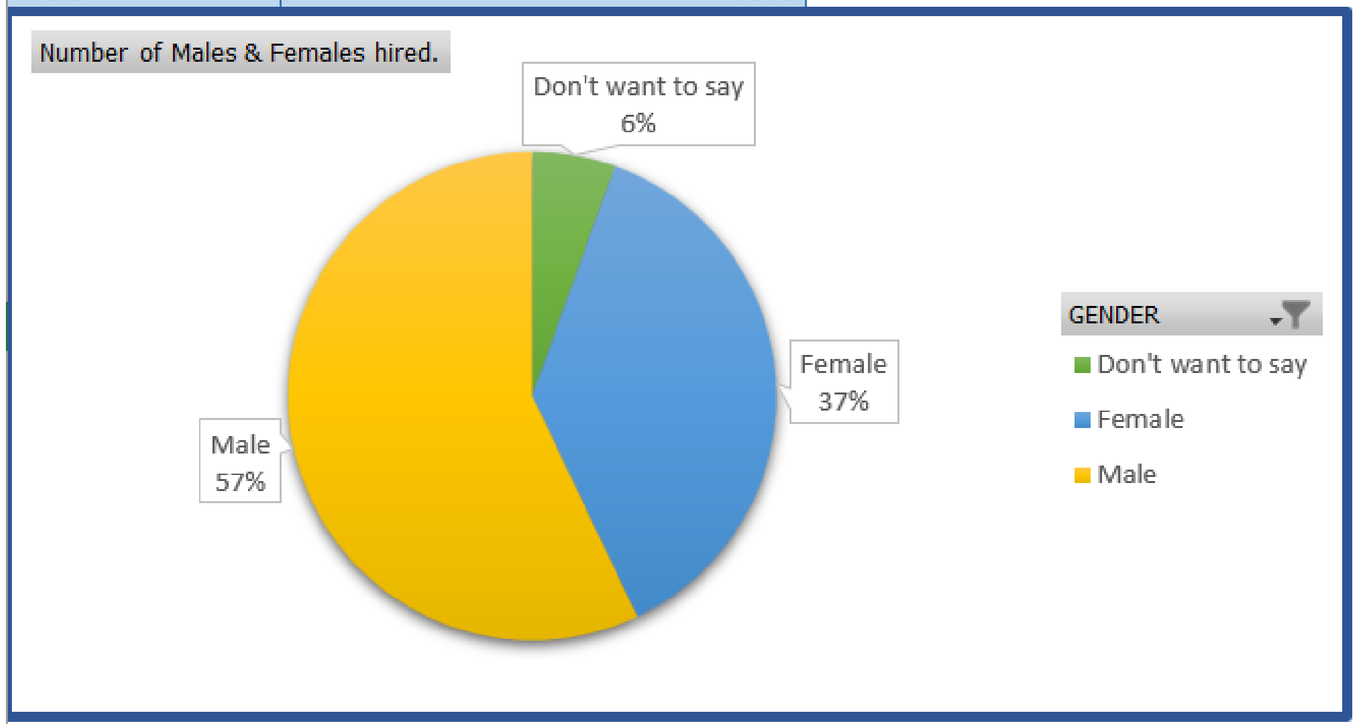
BUSINESS QUESTIONS

Hiring:

Process of intaking of people into an organization for different kinds of positions.

Your task: How many males and females are Hired?

GENDER	Number of Males & Females hired.
Don't want to say	393
Female	2673
Male	4076



To find the number of males and females hired, I created a pivot table by selecting the gender column and the count function. The pivot table will give the count of males and females hired.

Average Salary:
Adding all the salaries for a select group of employees and then dividing the sum by the number of employees in the group.

Your task: What is the average salary offered in this company?

Average Salary Offered
49984.91727

To find the average salary offered in the company, I created a pivot table by selecting the salary column and the average function. The pivot table will give the average salary offered in the company.

Class Intervals:

The class interval is the difference between the upper class limit and the lower-class limit.

Your task: Draw the class intervals for salary in the company?

Intervals	Frequency
1212-11053	48
11053-20893	28
20893-30734	40
30734-40574	49
40574-50415	44
50415-60255	28
60255-70096	32
70096-79936	42
79936-89777	45
89777-99617	37

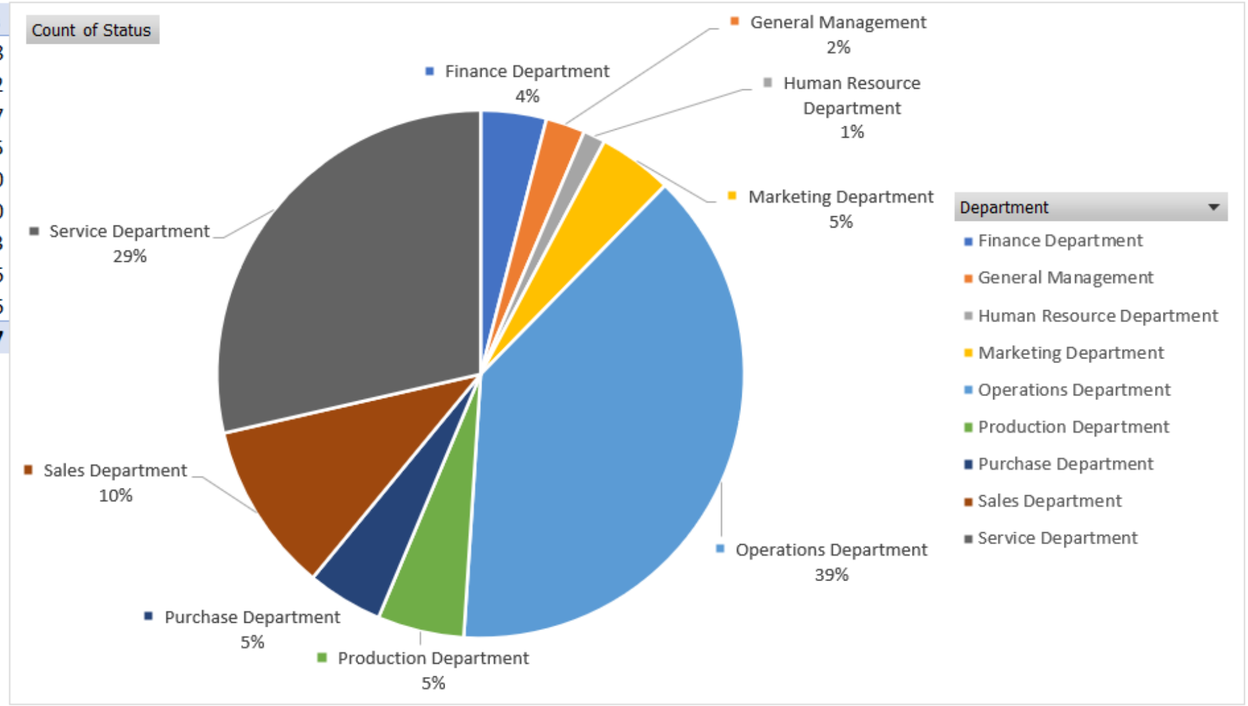
To create class intervals for salary, first I sorted the salary data in ascending order. Then, determined the range (maximum salary minus minimum salary) and divided it by the desired number of class intervals to find the width of each interval. After that I created a table with the lower and upper limits of each interval. Using the table of lower and upper limits, I classified each salary value into its corresponding interval by using the "IF" function in Excel.

Charts and Plots:

This is one of the most important parts of analysis to visualize the data.

Your task: Draw Pie Chart / Bar Graph (or any other graph) to show proportion of people working different department?

DEPARTMENTS	Count of Status
Finance Department	288
General Management	172
Human Resource Department	97
Marketing Department	325
Operations Department	2770
Production Department	380
Purchase Department	333
Sales Department	746
Service Department	2046
Grand Total	**7157**



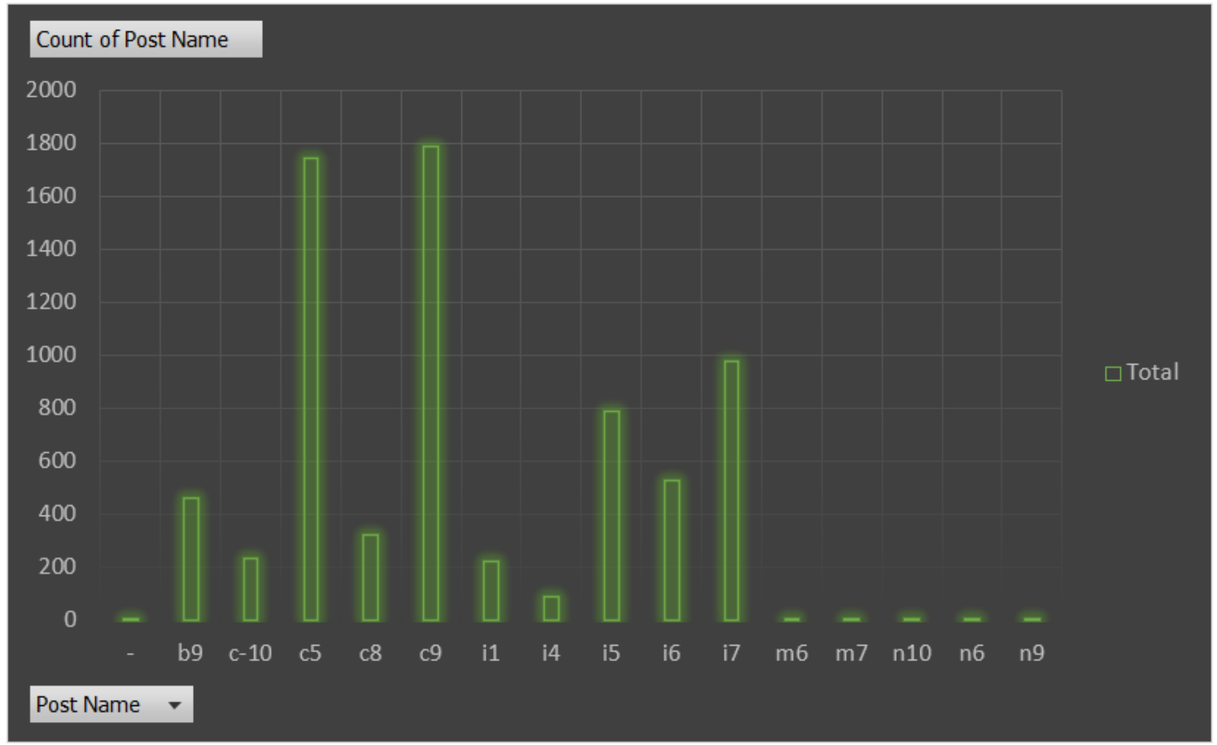
To plot a pie chart, I created a pivot table with the department column and the count function. Then, I inserted a pie chart from the pivot table and adjusted its format as needed.

Charts:

Use different charts and graphs to perform the task representing the data.

Your task: Represent different post tiers using chart/graph?

Row Labels	Count of Post Name
-	1
b9	463
c-10	232
c5	1741
c8	320
c9	1789
i1	222
i4	88
i5	787
i6	527
i7	980
m6	3
m7	1
n10	1
n6	1
n9	1
Grand Total	**7157**



To represent different post tiers, I created a pivot table with the post tier column and the count function. Then, inserted a bar graph from the pivot table and adjust its format as needed.

Insights

The insights gained from this project include the following:

1. **Gender Distribution**: By counting the number of males and females hired, it was possible to determine the gender distribution in the company. This information could be used to ensure gender diversity in the hiring process and provide equal opportunities for both males and females.
2. **Average Salary**: By calculating the average salary offered in the company, it was possible to gain insight into the compensation offered by the company and compare it with industry standards. This information could be used to make adjustments to the compensation structure to attract and retain top talent.
3. **Salary Class Intervals**: By creating class intervals for salary, it was possible to visualize the salary distribution in the company and identify any outliers. This information could be used to make adjustments to the compensation structure and ensure fair compensation for employees.
4. **Proportion of People Working in Different Departments**: By creating a pie chart or bar graph to show the proportion of people working in different departments, it was possible to determine the distribution of employees across departments. This information could be used to make adjustments to the departmental structure to ensure equal distribution of employees and resources.
5. **Representation of Different Post Tiers**: By creating a chart or graph to represent different post tiers, it was possible to determine the distribution of employees across different post levels. This information could be used to make adjustments to the post level structure to ensure equal distribution of employees and resources.

Overall, the project provided valuable insights into the hiring process and trends within the company, allowing for improvements to be made to ensure a fair and efficient hiring process.

Result

The result of the project is a detailed report that answers the questions asked in the project description and provides valuable insights into the hiring process and trends within the company. The report includes the following:

- The number of males and females hired.
- The average salary offered in the company.
- The class intervals for salary in the company.
- A pie chart or bar graph to show the proportion of people working in different departments.
- A chart or graph to represent different post tiers.

By performing the Exploratory Data Analysis (EDA) on the data provided, I was able to gain a deeper understanding of the hiring process and trends within the company. The insights gained from the analysis will allow the company to make improvements to ensure a fair and efficient hiring process, attract and retain top talent, and distribute employees and resources effectively.

This project has helped me to apply my knowledge of statistics and data analysis to real-world data and has allowed me to further develop my skills in using Excel or Google Sheets for data analysis and visualization. Overall, this project has been a valuable learning experience and has helped me to improve my skills and knowledge in data analysis.

Thank You