

Hiring Process Analytics

Project Description:

The hiring process is a crucial function of any company, and understanding trends such as the number of rejections, interviews, job types, and vacancies can provide valuable insights for the hiring department.

In this project, I work as a Data Analyst at a multinational company like Google and my task is to analyze the company's hiring process data and draw meaningful insights from it.

For the project, I have been provided a dataset containing records of previous hires. My job is to analyze this data and answer certain questions that can help the company improve its hiring process.

Approach:

For the data provided, we first check for any missing values in the data. We found out that the **Offered Salary** column has a missing value which is then replaced with the average salary of the post **i7**. We see that the column **Post Name** has a – which is replaced by **c-10**. Column **event_name** has a – which is replaced by **Don't want to say**. We then changed the format of **Interview Taken On** to **date** format.

To find out the missing values in the data, a new rule was made to color the blank spaces with **red** and then used the filter function to get a clear understanding of the data. Then, we calculated **Q1, Q3, inter-quartile range, upper bound, lower bound** and **outliers**. We chose offered salary to check for outliers. We found that there are **3481** records out of **7168** which are either more than upper bound or lower than lower bound, outliers are colored in yellow with a new rule. We then replaced the value of outliers with the average value of **Salary Offered**.

After the data preprocessing has been done, we then used various excel formulas, pivot tables, charts, graphs etc to do the analysis and answer the questions asked.

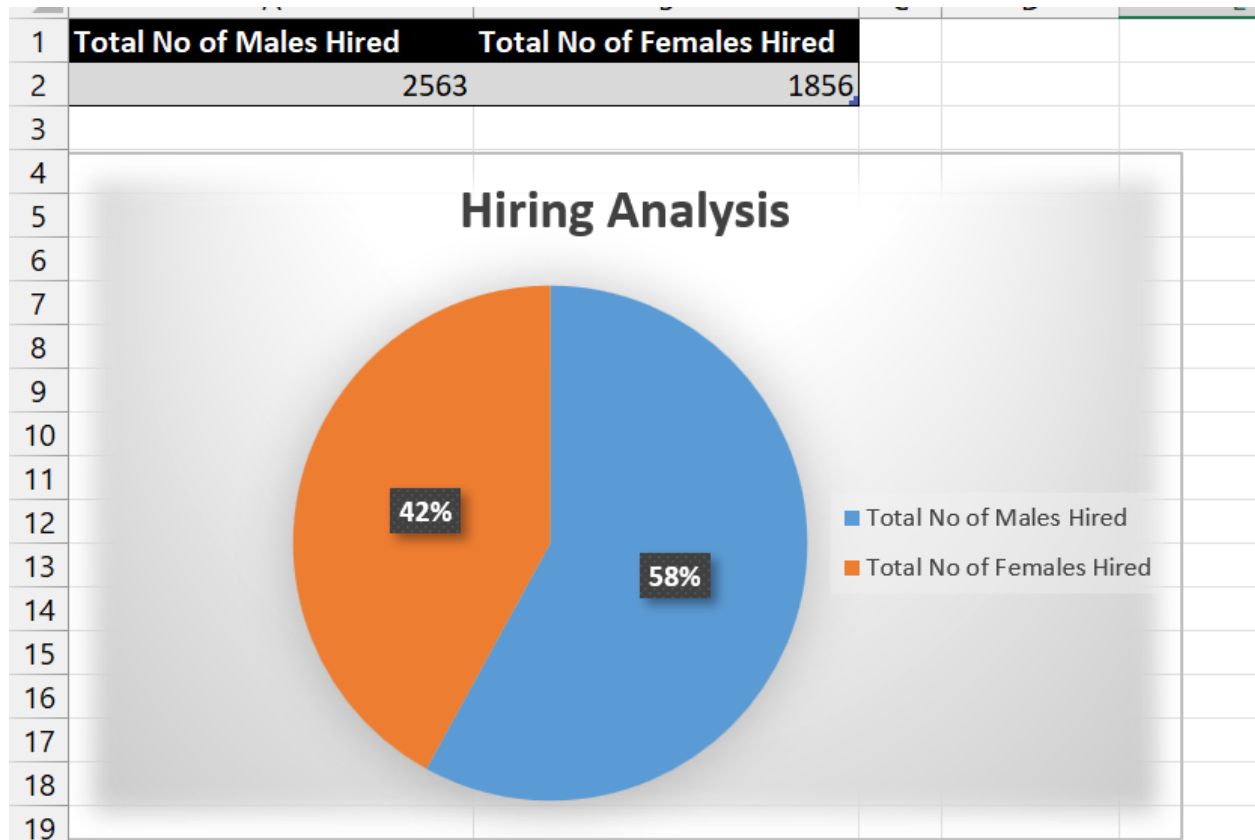
Tech-Stack Used:

For the project, **Microsoft® Excel® 2021 MSO (Version 2309 Build 16.0.16827.20166) 64-bit** has been used to analyze the data and get the insights from it. Excel provides a wide range of functions and tools for data analysis and data manipulation. Excel's features including formulas, functions, pivot tables and charts can be utilized for data cleaning, exploratory data analysis, calculating statistics, identifying trends and creating a visual representation of data.

Excel provides us with a user- friendly interface for analysis and drawing the insights from the dataset.

Tasks:

A. Hiring Analysis:



In this case, we checked the gender distribution of hires.

We see that out of total there are **2563** males and **1856** females that were hired which makes about **58%** and **42%** respectively.

We can focus on hiring more female employees to improve the gender diversity ratio.

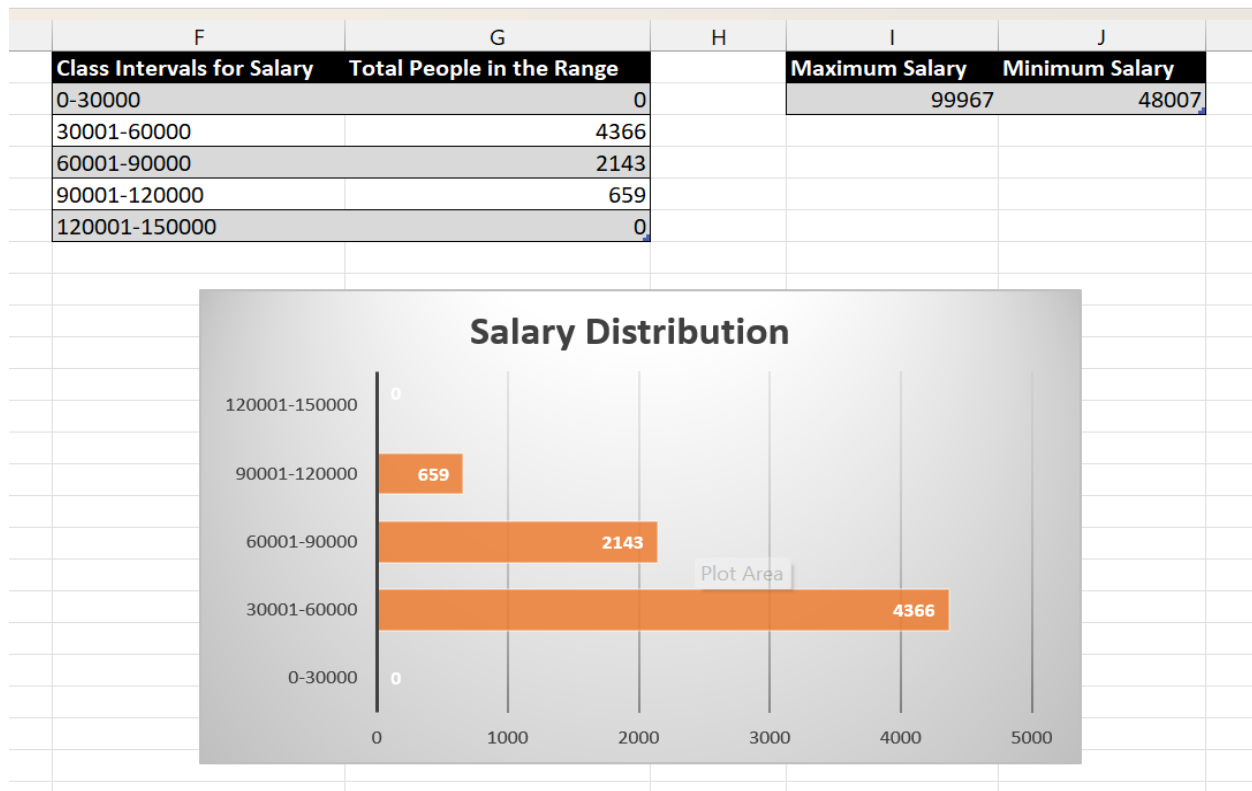
B. Salary Analysis:

	A	B	C	D	E
1	Salary Analysis		Data Summary(Salary)		
2	Average Salary Offered(Hired)		Mean	49752.8961	
3	₹49,752.90		Maximum Salary	99967	
4			Minimum Salary	48007	
5			Median	49752.8961	
6			Mode	49752.8961	
7			Standard Deviation	16000.52539	
8			Variance	256016812.8	
9			Sum (Salary)	290292942.5	
10			Count (Salary)	4697	
11					

Here, we calculated the average salary offered by the company. To find out this, we only considered the people who have been hired. Average salary is calculated by adding up the salaries of all the employees who have been hired and then dividing by the total number of employees.

We see that the average salary offered to the employees who have been hired is **Rs. 49,752.90**. The company can check with the industry standards that whether their average salary is more than the average salary offered or not. If it is lower, they can devise some plans to increase the salary of employees to meet the industry standards.

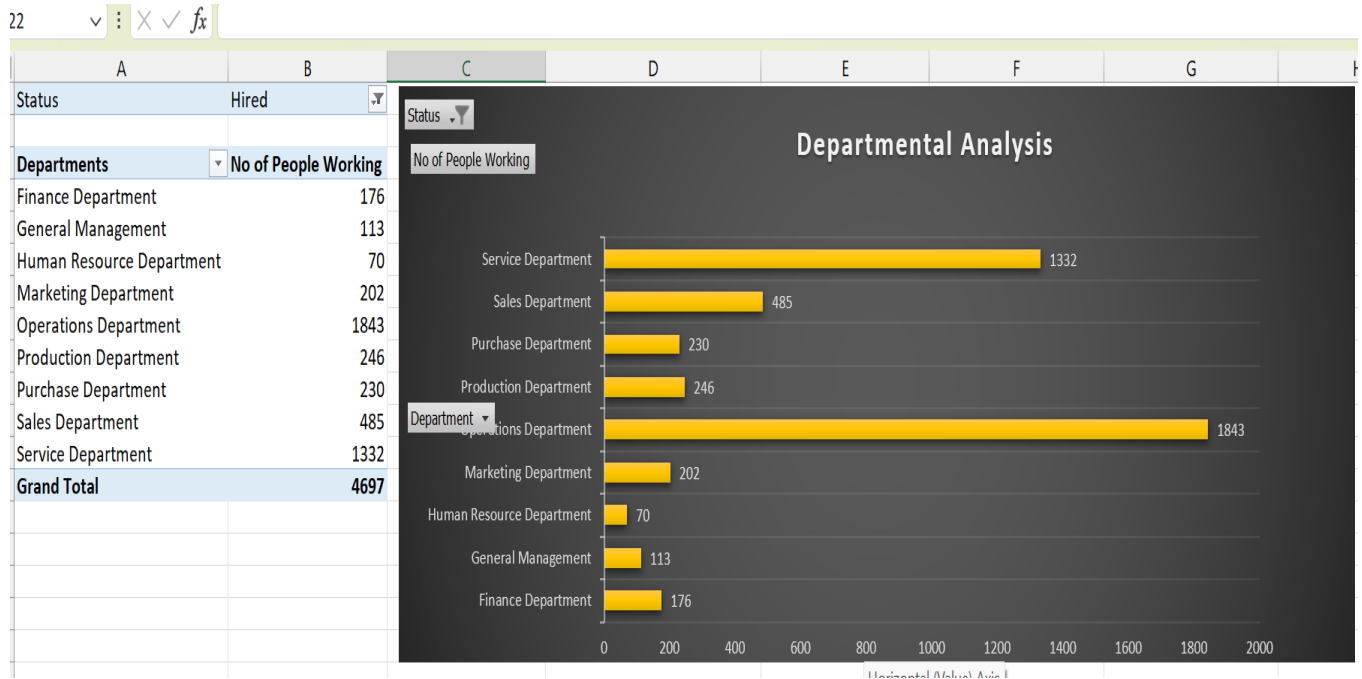
C. Salary Distribution:



Here, we checked the salary distribution within the company. We divided the salary in class intervals. Class intervals represent ranges of values, in this case, salary ranges. The class interval is the difference between the upper and the lower limits of a class.

We see that most of the employees are offered salary within the range of **30001-60000**. The company can check and analyze the salary distribution and see if adjustments are needed to ensure fair and competitive compensation.

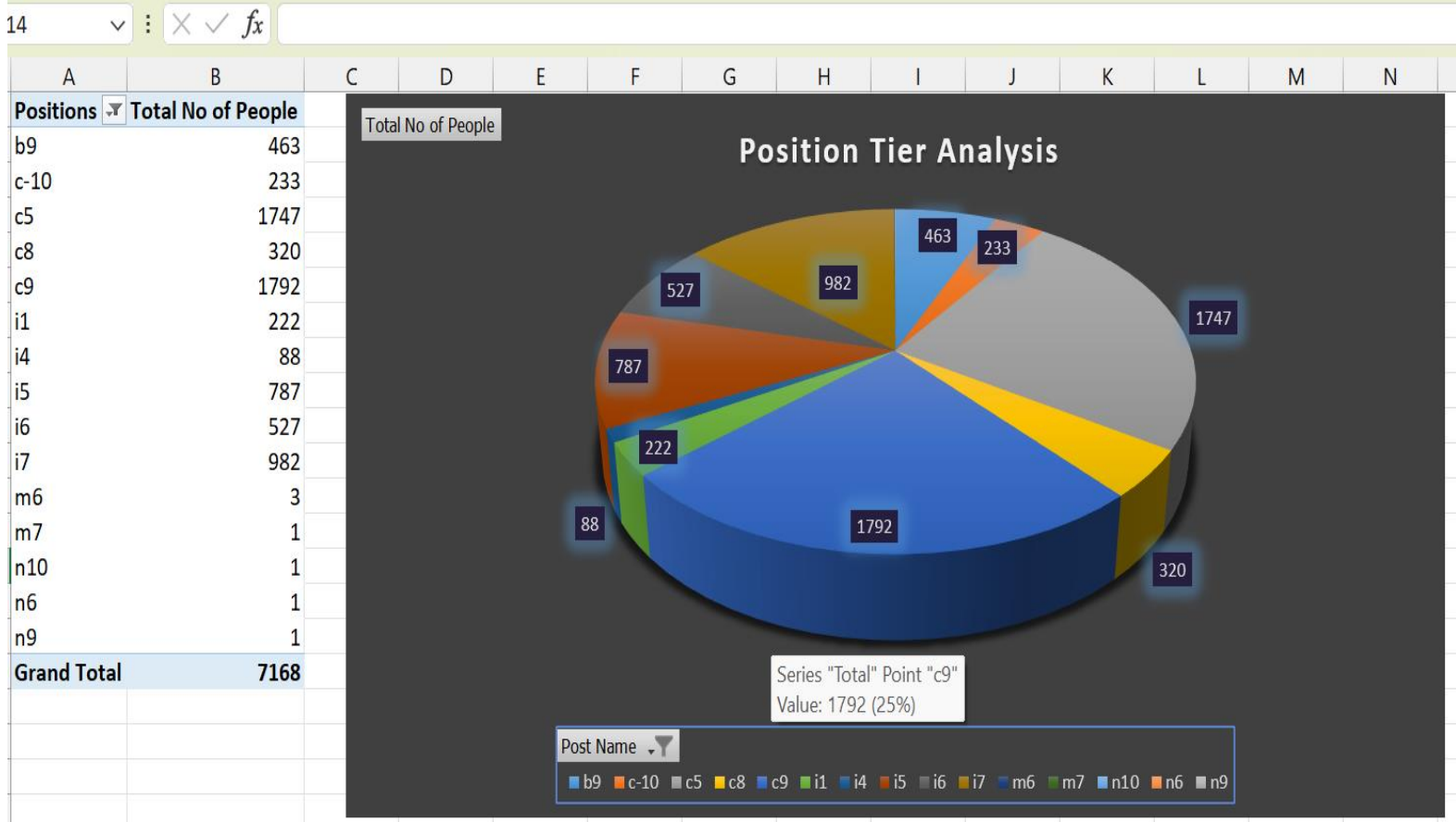
D. Departmental Analysis:



Here, we check and visualize to show the proportions of people working in different departments.

We see that there are a total of **1843** people working in **Operations Department**, followed by **Service Department** with **1332** people working, which is a lot more as compared to other departments. The company can evaluate and check the proportion of people working in each department and decide if they need to do more hirings in a particular department, or if more people are required in a particular department.

E. Position Tier Analysis:



Here, we find out the different tiers within the company and the distribution of positions along the tiers in the company.

We see that the positions **c9** and **c5** have the most number of people working under it which are **1792** and **1747**. This data can be visualized to evaluate the structure of their workforce and to provide everyone equal opportunities of growth and career progression.

Result:

While working on the project, I have enhanced my knowledge and skills in data visualization, data manipulation and statistical calculations. During the project, I have analyzed the hiring data, found out the no of males and females hired, proportion of people working in each department. Proportion of salaries offered and in what range. Additionally, I gained experience on how to handle outliers and missing data in the provided dataset.

Also, I created class intervals for salary ranges. The project has helped me to understand the analysis required in a company's hiring process and what are the factors that affect the hiring process. Overall, the project has helped me in enhancing my skills in exploratory data analysis, MS EXCEL, manipulation of data, treating outliers, handling missing values etc.

Below is the excel sheet for project completed:

[Hiring Process Analysis.](#)