Hiring Process Analytics

Project Description:

The project is about Hiring Process Analytics, where 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.

As a Data Analyst I need to analyze the company's hiring process data and draw meaningful insights from it like understanding the trends, patterns with the help of visualization.

The goal of this project is to use your knowledge of statistics and Excel to draw meaningful conclusions about the company's hiring process. Your insights could potentially help the company improve its hiring process and make better hiring decisions in the future.

Approach:

My first approach is to extract & transform methodology on the dataset provided by company and follow the below steps.

- The data needs to be cleaned, formatted and to check if there are any missing values in the dataset. If there are, decide on the best strategy to handle them.
- Check and identify the outliers and remove any outliers that may have significant impact on the analysis.
- Apply the best strategy to handle outliers. This could be removing them, replacing them, or leaving them as is, depending on the situation.
- After cleaning Perform relevant descriptive statistic calculations to gain a general understanding of dataset
- This could involve calculating averages, medians, or other statistical measures. It could also involve creating visualizations to better understand the data

Tech-Stack Used:

I used Microsoft Excel application from Microsoft Office Home & Student 2021 version. As the project is based on analysis and to perform the Statistical analysis as well as visualization Excel is better application.

Insights:

While analyzing the data I found some missing values in dataset. Which can be seen as **'-'** in column "event_name" & "Post Name" which shows the categorical stat of people as well as Posts.

Also there is blank value in Salary Offered field, where also I kept it as “N/A” to get the total salary of that missing row.

So rather than deleting the data, I decided to keep the data as the missing “-“ is dependable on other fields like “Status”, “Offered Salary”, “Department”.

I rename those missing values as **“Not Available”** for column ‘event_name’ and **‘N/A’** for ‘Post Name, so that they can be identical while doing alnalysis.

Result:

The project helps me to understand how hiring process analytics are important for a company because they help the company make better decisions when it comes to hiring and managing employees. By analyzing data from the hiring process, organization can identify areas for improvement and reduce biases that may lead to less diverse (or) less qualified hires. Hiring process analytics is done on monthly, quarterly, (or) yearly basis as per the requirement of the company.

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Data Analytics Tasks:

After downloading the dataset, use Excel to answer the below questions:

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?

Count of event_name	Column Labels	
Row Labels	Hired	Grand Total
Don’t want to say	268	268
Female	1856	1856
Male	2563	2563
Not Available	10	10
Grand Total	**4697**	**4697**

Gender	Hired
Female	1856
Male	2563
Grand Total	**4419**

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.

Employees	Total Number Of Employees	Sum of Offered Salary	Average Offered Salary
Don't want to say	393	19613369	49906.79
Female	2675	133986757	50088.51
Male	4085	203936199	49935.41
Not Available	15	692044	46136.27
Grand Total	**7168**	**358228369**	**49983.03**

Findings : The Average Salary offered in the company is 49983.03

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.

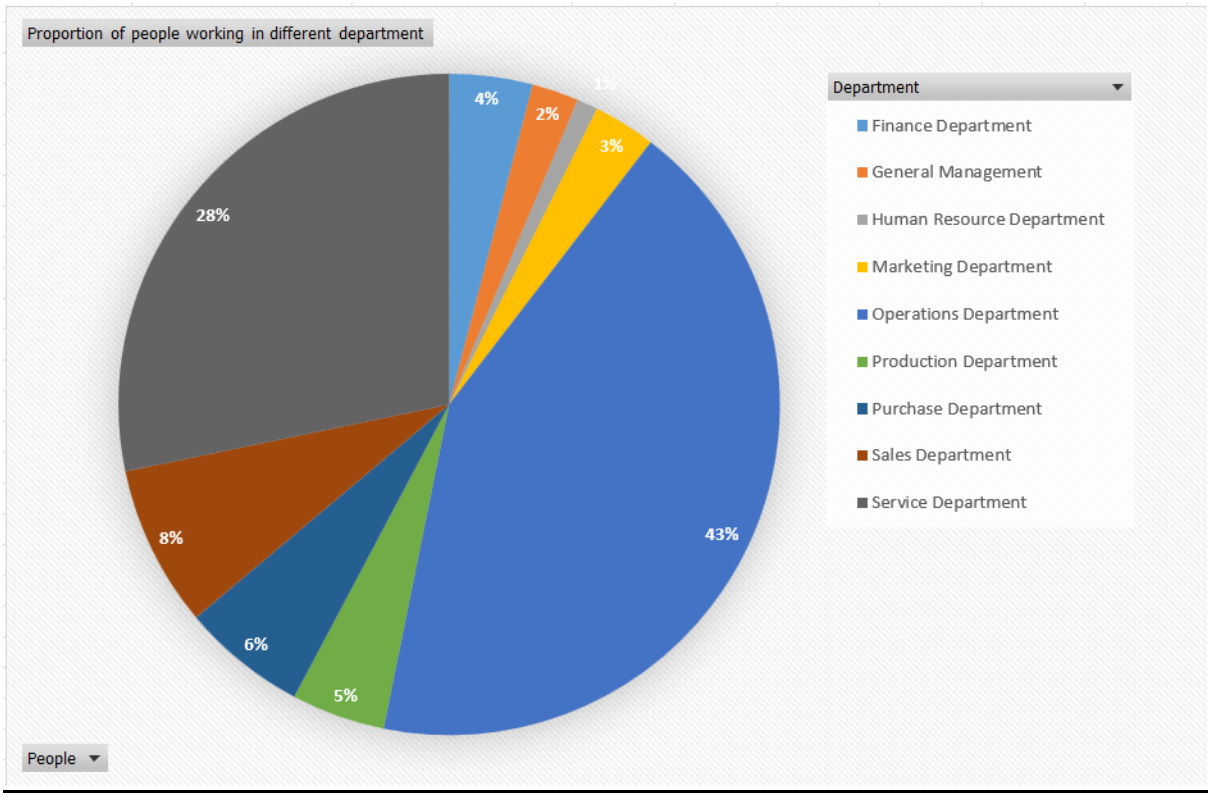
Your Task: Create class intervals for the salaries in the company. This will help you understand the salary distribution.

Salary Range	Frequency of Salary Offered				
Row Labels	Don't want to say	Female	Male	Not Available	Grand Total
100-10099	42	268	372	4	686
10100-20099	34	254	439	1	728
20100-30099	37	263	408	3	711
30100-40099	52	253	408		713
40100-50099	43	306	427		776
50100-60099	29	280	445		754
60100-70099	32	269	396	1	698
70100-80099	42	281	409	1	733
80100-90099	47	264	403	2	716
90100-100099	35	235	376	3	649
190100-200099		1			1
290100-300099			1		1
390100-400099		1			1
>400100			1		1
Grand Total	**393**	**2675**	**4085**	**15**	**7168**

Findings: From the above class intervals of salary I have inferred that the salary range of 40100-50099 is offered to the maximum number of people (776). Including both hired and rejected people.

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.



Proportion of people working in different department	People				
Department	Don't want to say	Female	Male	Not Available	Grand Total
Finance Department	16	258	14		**288**
General Management	9	152	11		**172**
Human Resource Department	4	36	57		**97**
Marketing Department	12	102	210	1	**325**
Operations Department	168	960	1639	4	**2771**
Production Department	18	141	220	1	**380**
Purchase Department	24	108	200	1	**333**
Sales Department	31	248	467	1	**747**
Service Department	111	670	1267	7	**2055**
Grand Total	**393**	**2675**	**4085**	**15**	**7168**

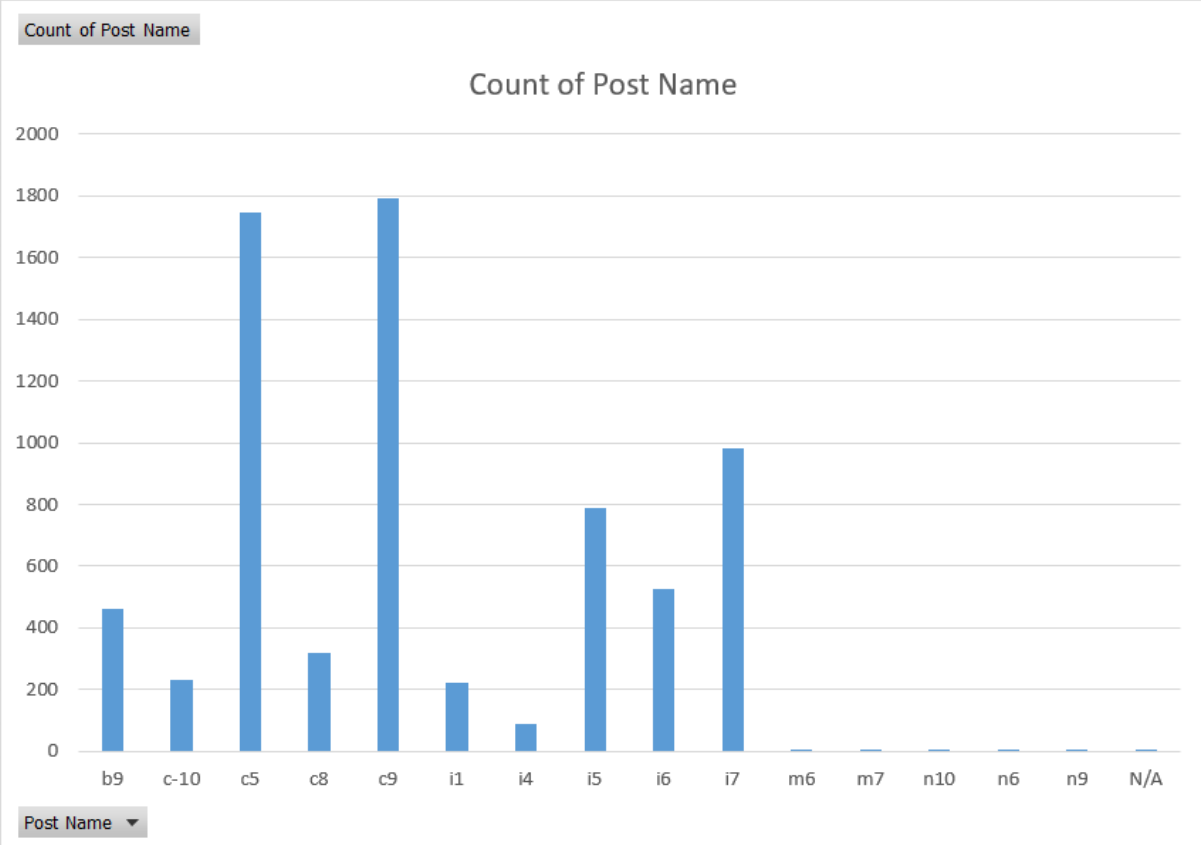
Findings: From the above pie chart and bar plot I have inferred that most number of people are hired for Operations Department and least number of people are hire for Human Resource Department.

The 43% of hired people i.e, 2771 people are working in operations department. Whereas only 1% of hired people i.e, 97 people are working in Human Resource department.

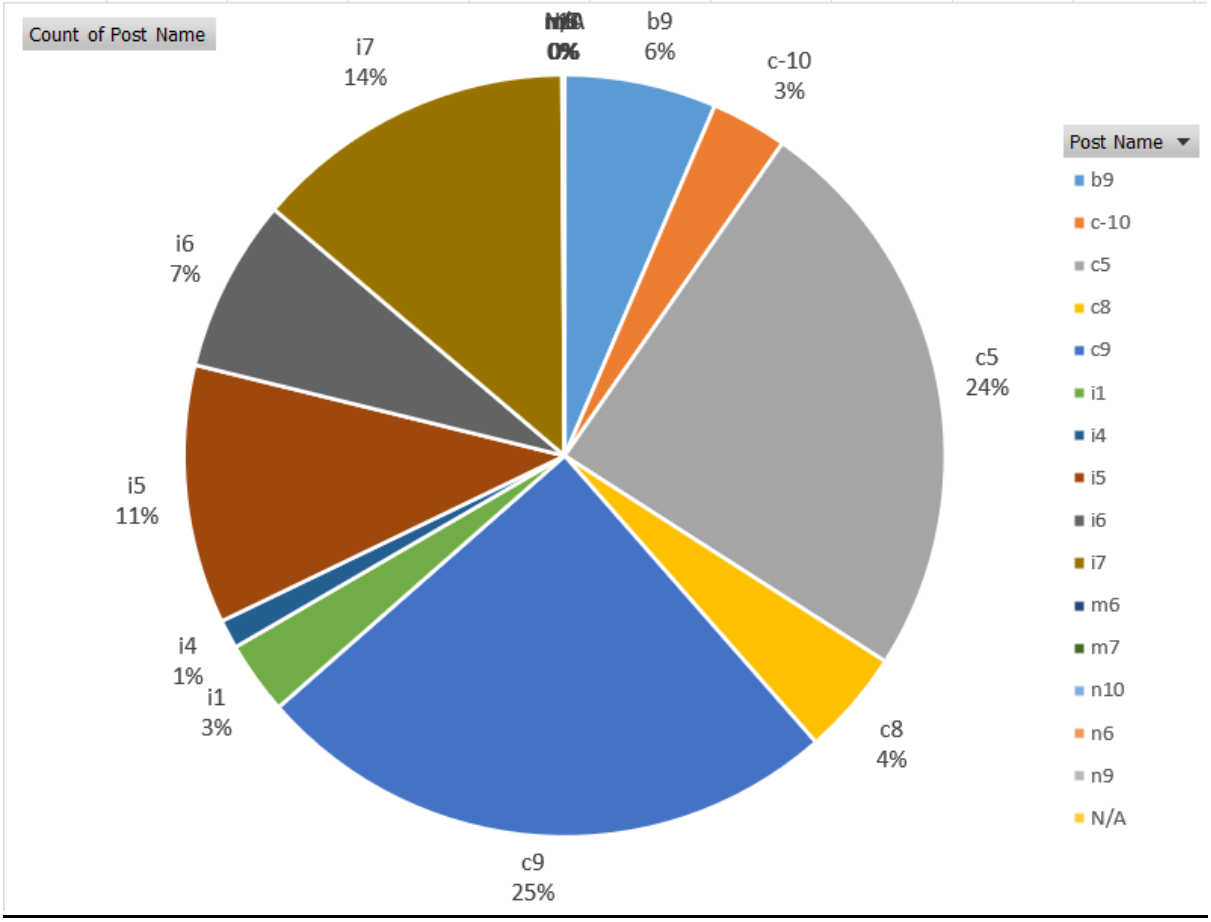
E. Position Tier Analysis: Different positions within a company often have different tiers or levels.

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.

Bar Chart



Pie Chart



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

Findings: From the above pie chart and bar plot I have inferred that the most number of people i.e,1792 are applied for the c9 post which accounts for 25% of total number of people applied.