Project4: Hiring Process Analytics

Project Description: Imagine you're a data analyst at a multinational company like Google. Your task is to analyze the company's hiring process data and draw meaningful insights from it. 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.

Approach:

1. Download the dataset
2. Handling missing data in event_name and post_name columns etc.
3. Use excel formulas for analysis.
4. Showcase results in easy format.

Tech-Stack Used: I used MS-excel 2019 for analysis.

Insights: On analysing the data, I found that males are hired more in comparison to female, also average salary of employees is ~50k/- with a maximum number of people having a salary of around ~74800/-. A maximum number of people work in the Operations department on the post C9.

Link to the excel sheet: https://docs.google.com/spreadsheets/d/1G5kS-I5Ro_zH_7gN0SO61zwpL58Tw0k9/edit?usp=sharing&ouid=115109770037321084146&rtpof=true&sd=true

Data Analytics tasks:

Exploratory data Analysis:

Total data points:	7169
Datapoints after missing values removed:	7167
Missing values:	2

Descriptive analysis (offered salary):	
Mean	49983.02902
Median	49625
Mode	72843
Standard Deviation (Population):	28852.16383
Variance (Population):	832447357.7
Maximum:	400000
Minumum:	100
Range:	399900
Count:	7167

Removal of Outliers:

On analysis using Inter-Quartile Range, the number of outliers found is 3.

Q1	Q3	IQR	Upper limit	Lower Limit
25463.75	74429	48965.25	147876.875	0

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?

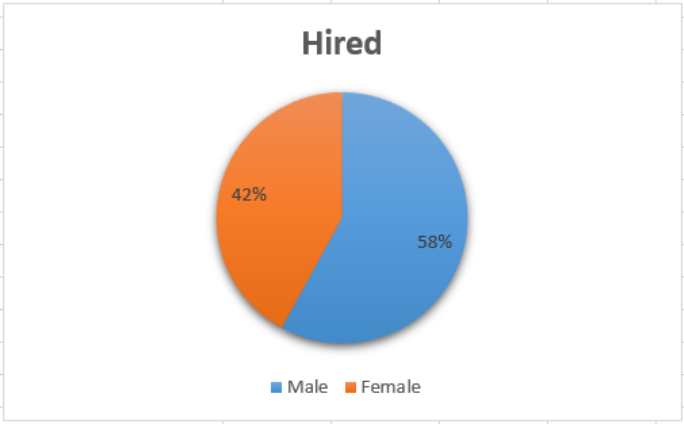
Excel formula used:

```
=COUNTIFS(D:D, "Male", C:C, "Hired")
```

```
=COUNTIFS(D:D,"Female",C:C,"Hired")
```

Result and Insight: On finding the gender distribution, I found that Males hired are 58% of the total while rest 42% are females as shown below.

Male	Female
2563	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.

Excel formula used:

Result:

average salary of employees=	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.

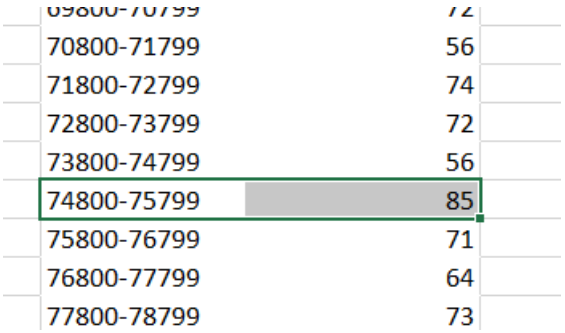
Your Task: Create class intervals for the salaries in the company. This will help you understand the salary distribution.

Result:

On creating the class intervals using Pivot table, we get to know that the maximum salaries lie in the interval 74800 to 75799 i.e. salaries of 85 people.

G	H	I
Class Interval	**Salaries in interval**	
(blank)	1	
800-1799	59	
1800-2799	65	
2800-3799	65	
3800-4799	68	
4800-5799	82	
5800-6799	71	
6800-7799	81	
7800-8799	63	
8800-9799	64	
9800-10799	73	
10800-11799	58	
11800-12799	65	
12800-13799	79	
13800-14799	69	
14800-15799	70	
15800-16799	67	
16800-17799	76	
17800-18799	69	
18800-19799	71	
19800-20799	56	
20800-21799	63	
21800-22799	73	
22800-23799	77	
23800-24799	66	
24800-25799	74	
25800-26799	65	
26800-27799	65	

77800-78799	73
78800-79799	68
79800-80799	79
80800-81799	81
81800-82799	55
82800-83799	59
83800-84799	67
84800-85799	61
85800-86799	65
86800-87799	66
87800-88799	74
88800-89799	60
89800-90799	58
90800-91799	66
91800-92799	60
92800-93799	57
93800-94799	64
94800-95799	64
95800-96799	68
96800-97799	55
97800-98799	73
98800-99799	54
99800-100799	14
199800-200799	1
299800-300799	1
399800-400799	1
Grand Total	**6760**



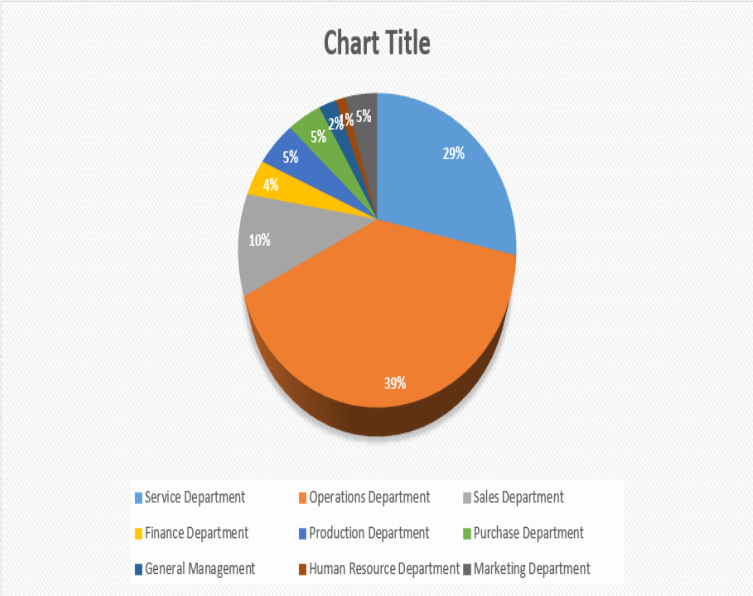
69800-70799	72
70800-71799	56
71800-72799	74
72800-73799	72
73800-74799	56
74800-75799	85
75800-76799	71
76800-77799	64
77800-78799	73

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.

Result and Insights:

D	E	F	G	H	I	J	K	L
Service Department	Operations Department	Sales Department	Finance Department	Production Department	Purchase Department	General Management	Human Resource Department	Marketing Department
2055	2771	746	288	380	333	172	97	325



As we can see the maximum contribution here is from the Operations department with 2771 (39%) people and the least people work in the Human Resource Department with 97 (1%) people.

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

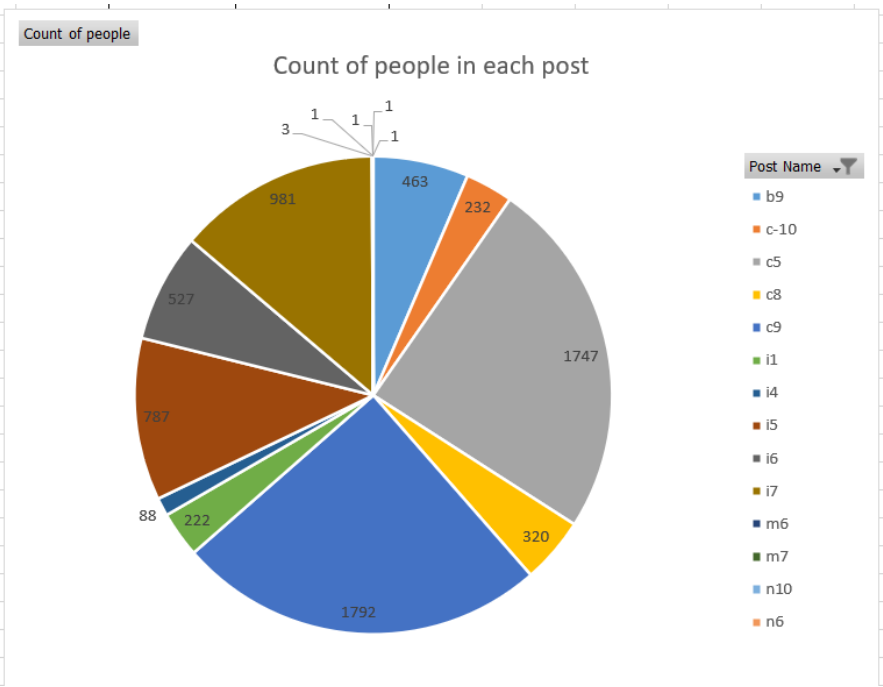
Your Task: Use a chart or graph to represent the different position tiers within the company. This will help you understand the distribution of positions across different tiers.

Results and Insights:

Creating a Pivot table with rows as Post names and count of People with each row

F	G
Post name	**Count of people**
-	1
b9	463
c-10	232
c5	1747
c8	320
c9	1792
i1	222
i4	88
i5	787
i6	527
i7	981
m6	3
m7	1
n10	1
n6	1
n9	1
Grand Total	**7167**

Pie chart:



As we can see in the pie chart Maximum number of people are at “C9” position and minimum number of people are at “M7”, “N10”, “N6”, “N9” with people count as 1.