Hiring Process Analytics
Based on Statistics

Description
This project analyzes the hiring process of a company to uncover insights about gender distribution, salary trends, departmental hiring rates, and position tiers. The primary objective is to understand hiring patterns, salary distributions, and the influence of departments and positions on the recruitment process.

Approach
The project was executed in the following steps:

Data Cleaning & Preprocessing
- Handled missing values (filled missing position name, assigned "Don't want to say" to missing gender entries, etc.).

Data Analysis
- **Hiring Analysis:** Examined the distribution of hired employees by gender.
- **Salary Analysis:** Calculated the average salary and categorized salaries into class intervals.
- **Departmental Analysis:** Evaluated hiring rates across departments.
- **Position Tier Analysis:** Categorized job positions into different levels.

Visualization & Interpretation
- Used **Excel (Pivot Tables, Charts, and Functions)** to generate visual insights.

Tech-Stack Used
In this project, we have used Microsoft Excel (professional plus 2024 version) for data cleaning, visualization and summarizing data and Google Drive for hosting and sharing reports.

Tasks:

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

Gender	No. of Employees
	Hired
Don't want to say	278
Female	1856
Male	2563

Month's Name	No. of employees
	Hired
May	1095
Jun	1079
Jul	1296
Aug	1227

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.

Task: What is the average salary offered by this company? Use Excel functions to calculate this.

To calculate average salary, we use

=AVERAGE(Table1[Offered Salary])

average salary	$ 49983.02902

Department wise Average Salary

Department	Average Salary
Finance Department	$48,748.28
General Management	$60,810.20
Human Resource Department	$49,014.40
Marketing Department	$47,843.40
Operations Department	$48,914.19
Production Department	$49,350.87
Purchase Department	$52,086.57
Sales Department	$48,539.55
Service Department	$50,549.52

Gender wise Average Salary

Gender	Average Salary
Don't want to say	$50,686.28
Female	$49,369.77
Male	$49,929.09

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

Salary Range distribution

Salary Range	Count of employees whose Salary is in range
0-9999	439
10000-19999	489
20000-29999	457
30000-39999	485
40000-49999	528
50000-59999	494
60000-69999	450
70000-79999	479
80000-89999	459
90000-99999	414
200000-209999	1
300000-309999	1
390000-400000	1

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

Department wise employees distribution

Department	No. of Employees
Finance Department	176
General Management	113
Human Resource Department	70
Marketing Department	202
Operations Department	1843
Production Department	246
Purchase Department	230
Sales Department	485
Service Department	1332

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

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.

Position wise employees distribution

Position name	No. of Employees
b9	308
c-10	105
c5	1182
c8	193
c9	1240
i1	151
i4	32
i5	511
i6	337
i7	635
m6	2
n6	1

Insights & Interpretation

➢ In this company, Males is having a higher hiring rate which is **54.57%** than Females whose hiring rate is **39.51%** and those who don't want to say is **5.92%**.

➢ Maximum hiring is done in the month of **July** while hiring in **June** is lowest.

➢ Most departments have similar average salaries, ranging from **$47,800 to $52,000**, except for General Management, which is significantly higher.

➢ We can see that there is no major salary gap between Male & Female but those who prefer don't want to say have slightly higher salary.

➢ Maximum hiring is done in **operations department** while **Human Resource department** is the lowest.

Results

Through this project, I gained a deeper understanding of hiring trends, salary distribution, and department-wise recruitment. The insights can help companies optimize their hiring strategies by identifying gaps in gender hiring, improving salary transparency, and ensuring fair hiring across departments.

Useful links

Link for edited Excel file (advised to view in Microsoft excel not google sheet)-
https://docs.google.com/spreadsheets/d/1m8cWGLIAvQRsAc6UaslkbKx2FEOQ8e4l/edit?usp=drive_link&ouid=117909462331247801337&rtpof=true&sd=true