Hiring Process Analytics

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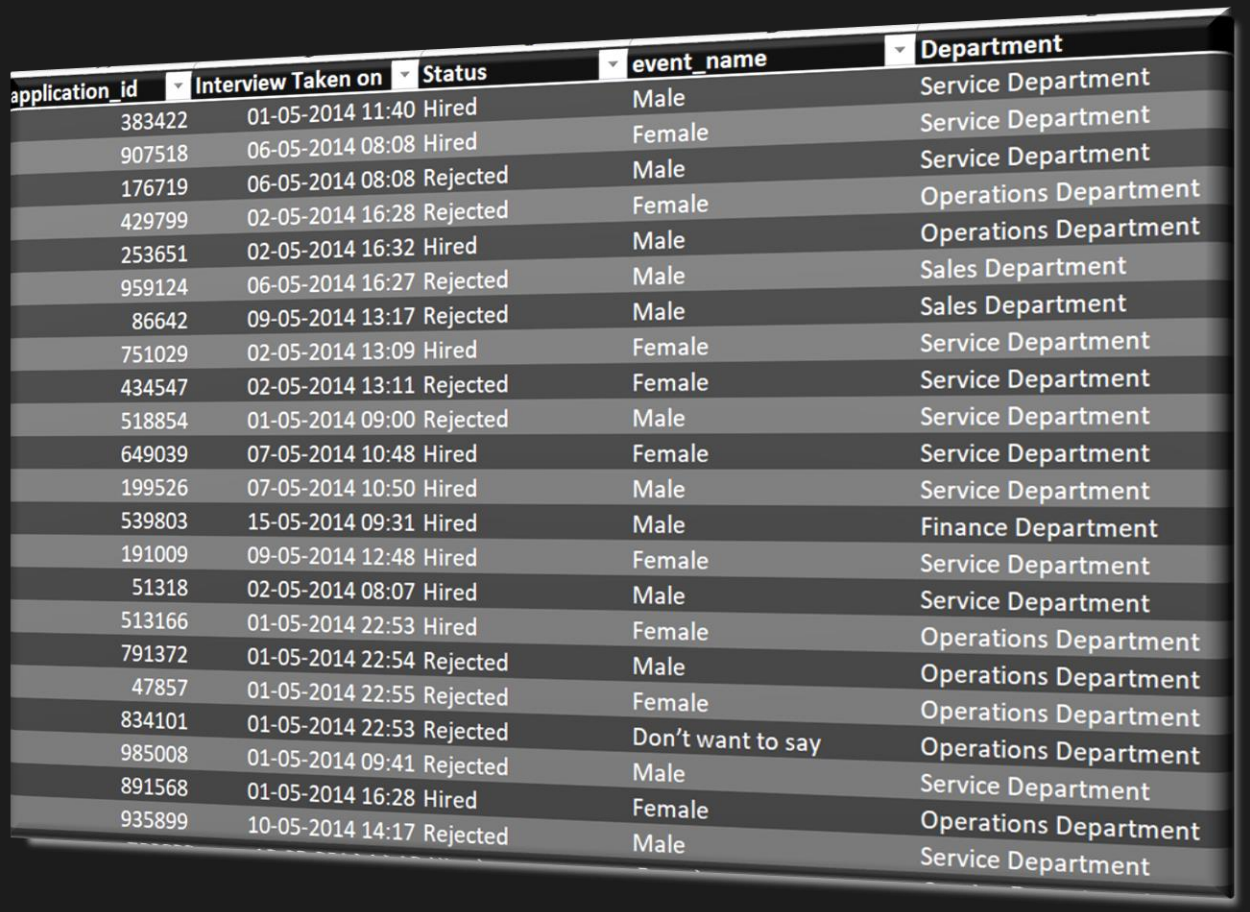
Project Description

- The project aims to analyze the hiring process of a multinational company (MNC) using a dataset provided by the company. As a Data Analyst, My the task is to draw insights and provide valuable information for the hiring department. The dataset contains information about individuals who registered for a specific position in a department of the company. By performing exploratory data analysis (EDA) and applying statistical techniques in Excel, the project seeks to answer specific questions and draw conclusions about the company's hiring trends.

Approach

- Examine data columns to understand their information
- Identify missing values and handle them appropriately
- Merge columns with multiple categories for better analysis
- Identify outliers that can impact analysis and decision-making
- Generate a data summary with key statistics and insights



application_id	Interview Taken on	Status	event_name	Department
383422	01-05-2014 11:40	Hired	Male	Service Department
907518	06-05-2014 08:08	Hired	Female	Service Department
176719	06-05-2014 08:08	Rejected	Male	Service Department
429799	02-05-2014 16:28	Rejected	Female	Operations Department
253651	02-05-2014 16:32	Hired	Male	Operations Department
959124	06-05-2014 16:27	Rejected	Male	Sales Department
86642	09-05-2014 13:17	Rejected	Male	Sales Department
751029	02-05-2014 13:09	Hired	Female	Service Department
434547	02-05-2014 13:11	Rejected	Female	Service Department
518854	01-05-2014 09:00	Rejected	Male	Service Department
649039	07-05-2014 10:48	Hired	Female	Service Department
199526	07-05-2014 10:50	Hired	Male	Service Department
539803	15-05-2014 09:31	Hired	Male	Finance Department
191009	09-05-2014 12:48	Hired	Female	Service Department
51318	02-05-2014 08:07	Hired	Male	Service Department
513166	01-05-2014 22:53	Hired	Female	Operations Department
791372	01-05-2014 22:54	Rejected	Male	Operations Department
47857	01-05-2014 22:55	Rejected	Female	Operations Department
834101	01-05-2014 22:53	Rejected	Don't want to say	Operations Department
985008	01-05-2014 09:41	Rejected	Male	Service Department
891568	01-05-2014 16:28	Hired	Female	Operations Department
935899	10-05-2014 14:17	Rejected	Male	Service Department

Tech Stack

For this project, Excel was utilized as the primary software for data analysis. The version used was Microsoft Excel 2019. Excel provides a wide range of functions and tools that facilitate data manipulation, statistical calculations, and visualization.

Insights:

A. **Hiring:** Process of intaking of people into an organization for different kinds of positions.
   My task: How many males and females are Hired ?

B. **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.
   My task: What is the average salary offered in this company ?

C. **Class Intervals:** The class interval is the difference between the upper class limit and the lower class limit.
   My task: Draw the class intervals for salary in the company ?

D. **Charts and Plots:** This is one of the most important part of analysis to visualize the data.
   My task: Draw Pie Chart / Bar Graph (or any other graph) to show proportion of people working different department ?

E. **Charts:** Use different charts and graphs to perform the task representing the data.
   My task: Represent different post tiers using chart/graph?

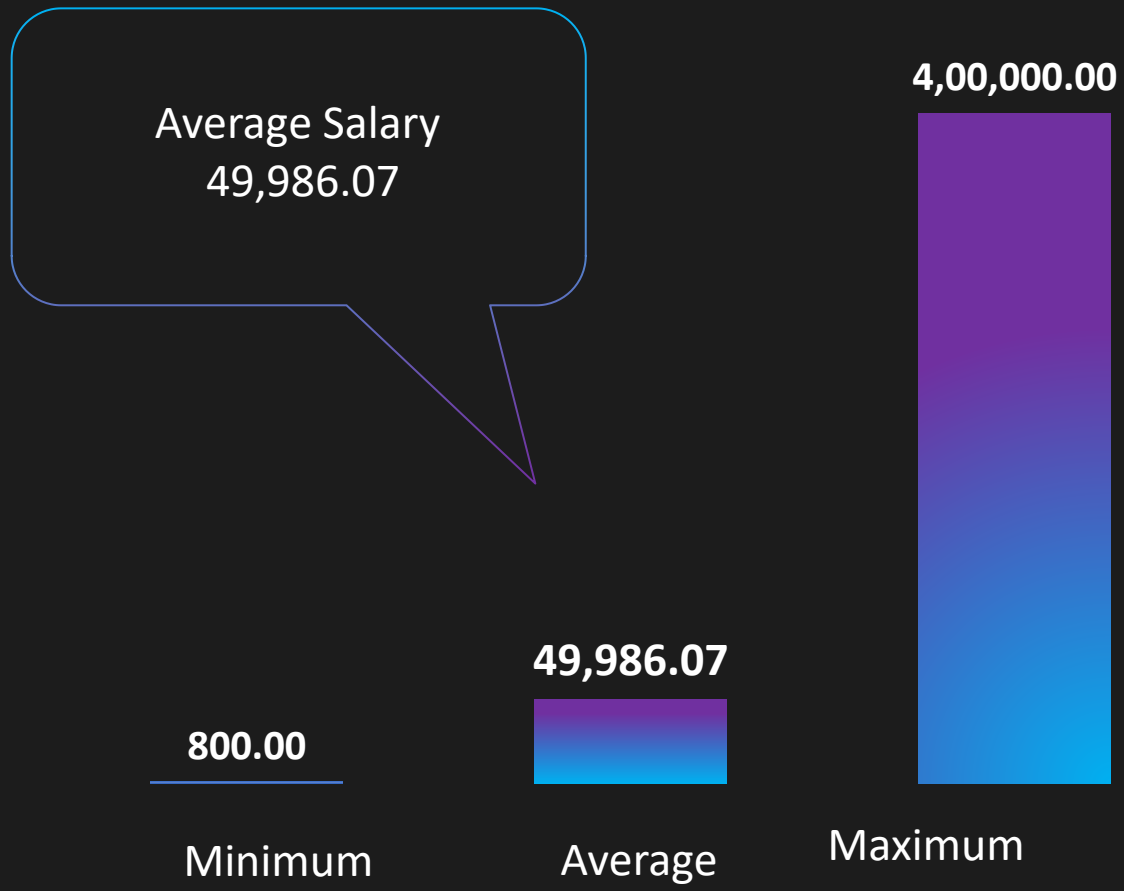
A. Gender Distribution: By analyzing the dataset, we can determine the number of males and females hired by the company. This information is crucial for understanding the gender diversity within the organization.
B. Average Salary: Calculating the average salary offered by the company provides insights into the compensation package provided to employees. It helps evaluate the company's competitiveness in the job market.
C. Class Intervals: Drawing class intervals for salaries helps understand the distribution of salary ranges within the company. This information aids in identifying salary patterns and segments within the organization.
D. Proportion of People in Different Departments: Visualizing the department-wise distribution of employees through pie charts or bar graphs provides a clear understanding of the workforce allocation across various departments.
E. Representation of Post Tiers: Using charts and graphs, we can represent different post tiers within the company. This visual representation assists in evaluating the hierarchical structure and career progression opportunities.

Hiring:

- The dataset reveals a gender distribution in the company's hiring process
- These numbers indicate a higher number of male hires compared to females
- Assessing the gender distribution enables the company to make data-driven decisions and promote equal opportunities for all genders.
- Improving gender diversity and inclusivity within the organization can be a strategic objective moving forward.

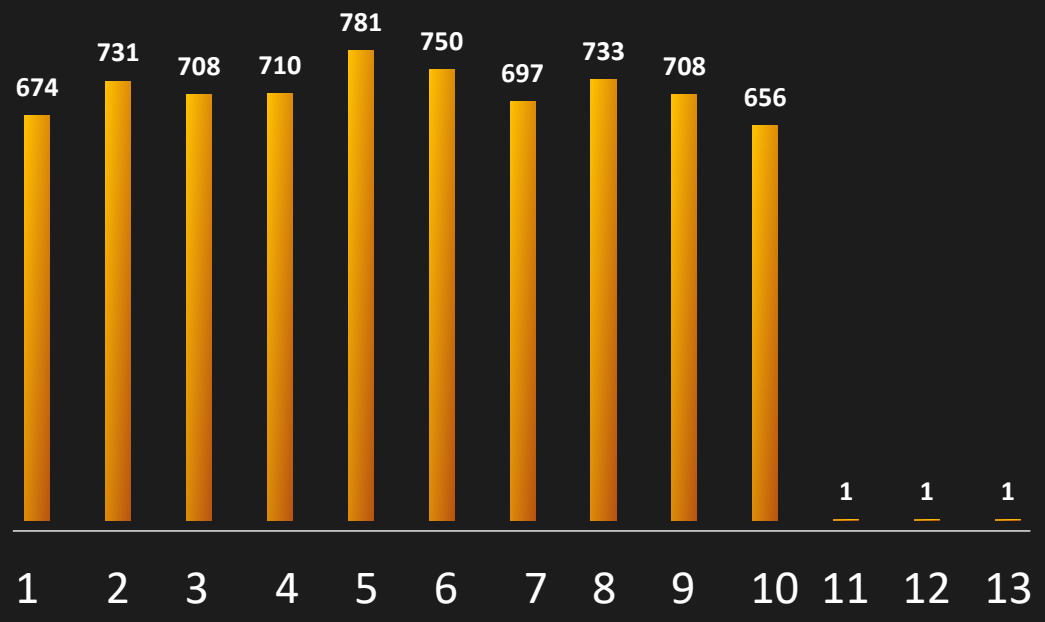
Average Salary:

- Adding all the salaries for a select group of employees and then dividing the sum by the number of employees in the group.
- Average Offered Salary: The dataset indicates an average offered salary of $49,986.07. This average salary serves as a benchmark for evaluating the compensation package provided by the company.
- The average salary provides valuable information about the competitiveness of the company in the job market.
- It helps in assessing the company's ability to attract and retain talent.



Class Intervals:

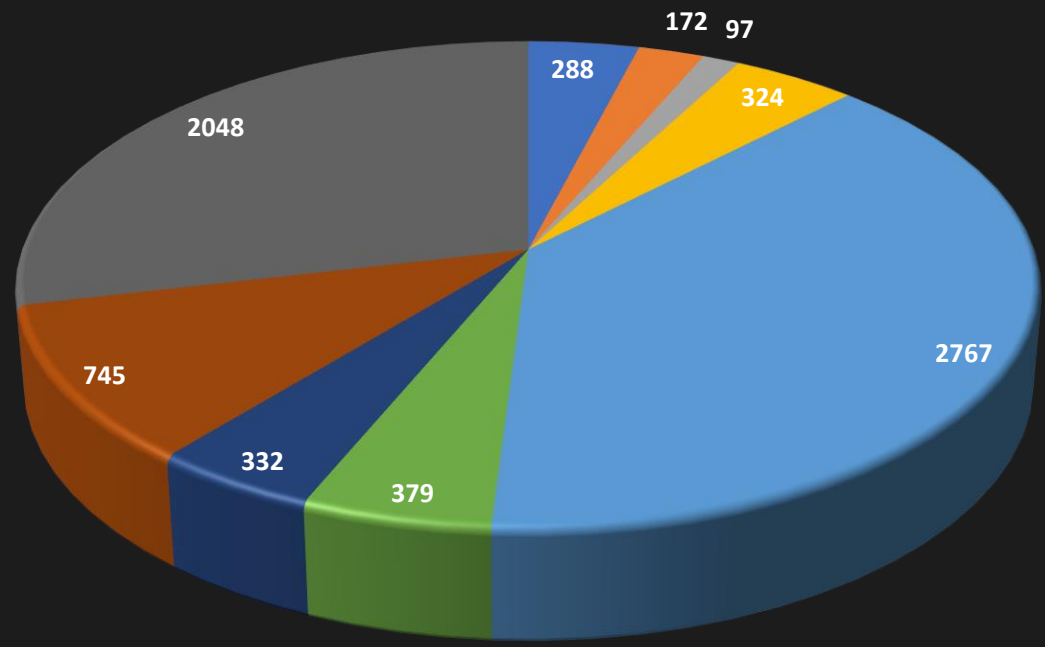
1. 1-10000: 674 offered salaries
2. 10001-20000: 731 offered salaries
3. 20001-30000: 708 offered salaries
4. 30001-40000: 710 offered salaries
5. 40001-50000: 781 offered salaries
6. 50001-60000: 750 offered salaries
7. 60001-70000: 697 offered salaries
8. 70001-80000: 733 offered salaries
9. 80001-90000: 708 offered salaries
10. 90001-100000: 656 offered salaries
11. 190001-200000: 1 offered salary
12. 290001-300000: 1 offered salary
13. 390001-400000: 1 offered salary



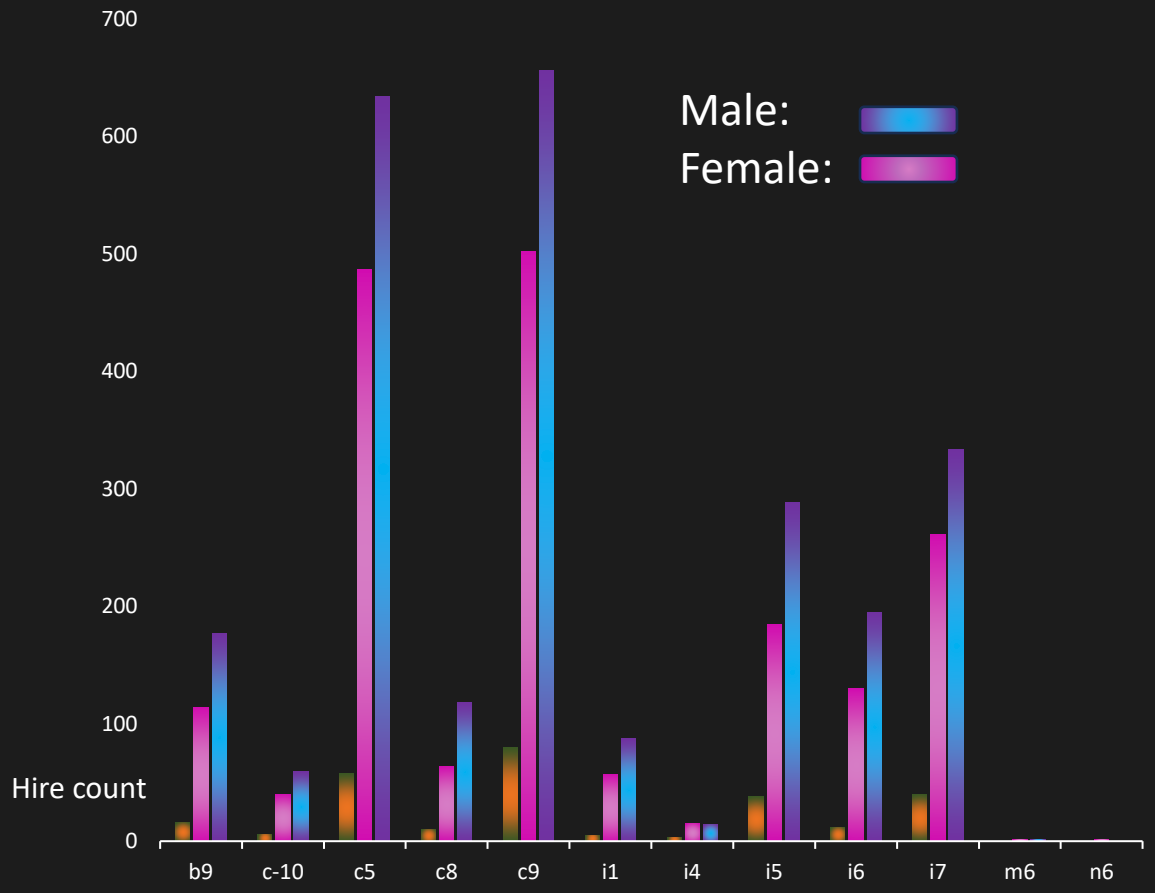
The class interval is the difference between the upper class limit and the lower class limit.

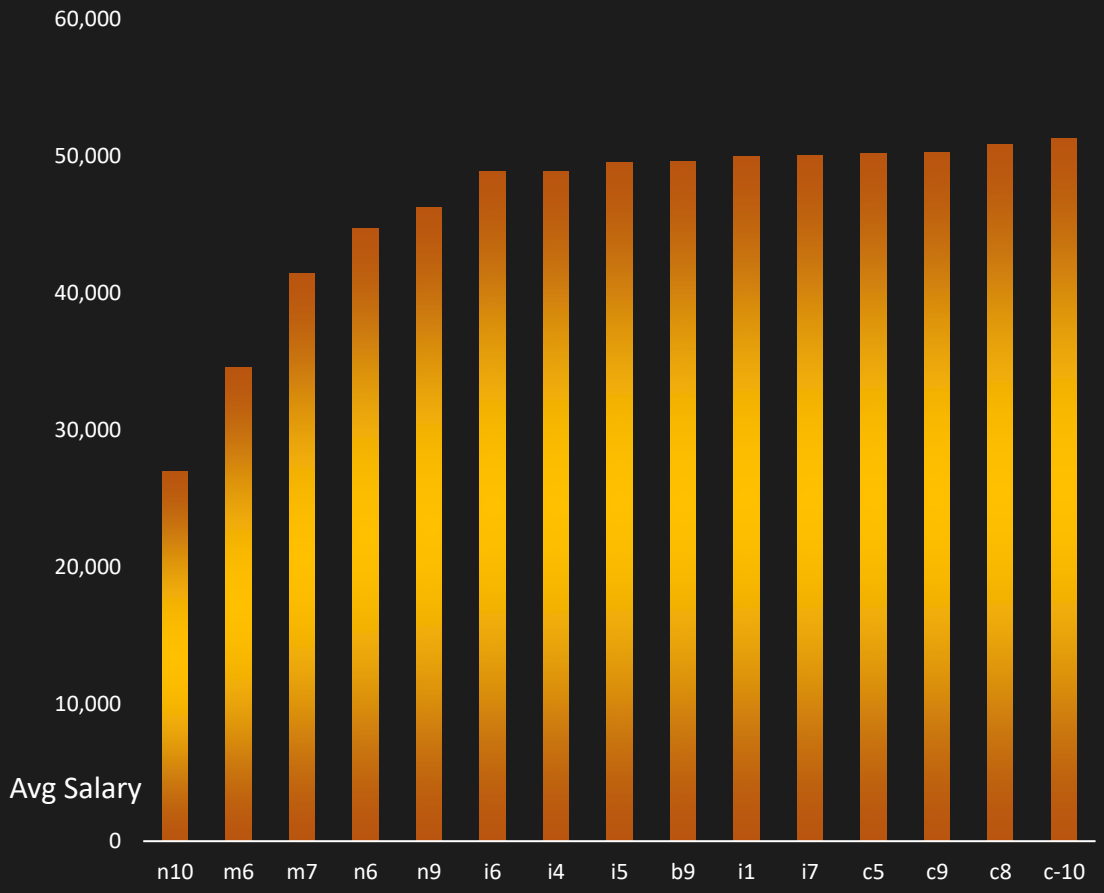
Proportion of people working different department:

Finance Department	288
General Management	172
Human Resource Department	97
Marketing Department	324
Operations Department	2767
Production Department	379
Purchase Department	332
Sales Department	745
Service Department	2048



Different post tiers:





Result:

- **Achievements:** Key achievements include analyzing gender distribution, determining average salary, identifying salary class intervals, visualizing department proportions, and representing post tiers.
- **Decision-Making:** Insights from the project inform decision-making processes within the hiring department.
- **Data-Driven Approach:** A data-driven approach facilitated a comprehensive understanding of hiring trends.
- **Organizational Effectiveness:** Project outcomes enhance organizational effectiveness in gender diversity, compensation, resource allocation, and talent management.

Thank you

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MS Excel File: Hiring Process Analytics