Hiring Process Analytics

Project Description:

As a Data Analyst at a multinational corporation like Google, this project focuses on analysing the company's hiring process to extract actionable insights that can enhance recruitment strategies and optimize the talent acquisition funnel.

The hiring process is a critical function that impacts organizational growth, team productivity, and company culture. By examining comprehensive datasets containing information on job applications, interview rounds, job types, offer status, vacancies, and rejections, this project aims to:

- Identify bottlenecks in the recruitment pipeline.
- Uncover trends in candidate progression, such as drop-off rates after specific interview rounds.
- Analyze rejection patterns across departments, roles, and job types (e.g., full-time, internship, contract).
- Determine vacancy fulfilment rates and time-to-hire metrics.
- Assess the effectiveness of interview rounds in selecting successful candidates.
- Provide data-driven recommendations to streamline hiring practices and improve candidate experience.

Impact:

The insights generated from this project aim to support HR and Talent Acquisition teams in making informed decisions, reducing hiring cycle time, enhancing candidate experience, and aligning recruitment efforts with company growth objectives.

Task A: Hiring Analysis – The hiring involves bringing new individuals into the organization for various roles.

Objective: Determine the gender distribution of hires. How many males and females have been hired by the Company?

How many males and females were hired?	
Gender	**Employee**
Men	2563
Female	1856

Insight:

This analysis helps understand the **gender balance** in hiring. If there's a significant difference, it might signal the need to review recruitment practices to ensure diversity and inclusion.

Task 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.

Objective: What is the average salary offered by this company?

What is the average salary offered by this company?	
Avg Salary	49983.02902

Insight:

The average salary offered by the company is **₹49,983.029 per month.**

This value provides a benchmark for compensation trends and helps HR teams ensure competitive and equitable salary offerings across roles. If there is a large variance between departments or roles, deeper analysis may be required to address potential pay disparities.

Task 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.

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

Create class intervals for the salaries in the company.	
Departments	**Average Salary**
Finance Department	49628.00694
General Management	58722.09302
Human Resource Department	49002.27835
Marketing Department	48489.93538
Operations Department	49151.35438
Production Department	49448.48421
Purchase Department	52564.77477
Sales Department	49310.3807
Service Department	50629.88418

Key Insights:

Most departments fall within the **₹48,000-₹50,000** range, indicating a strong central tendency in compensation across functional teams.

General Management has the highest averages salary at approximately ₹58,722, which is expected due to senior-level responsibilities.

Purchase Department stands out with a relatively higher average salary (₹52,565), possibly due to its strategic or high-responsibility nature in the company.

There is **minimal salary disparity** across most departments, suggesting a balanced compensation structure.

Only **one department (General Management)** exceeds the ₹53,000 mark, indicating limited high-paying roles.

Task D: Departmental Analysis – Visualizing data through charts and plots is a crucial part of data analysis.

Objective: Use a chart suitable visualization to show the proportion of people working in different departments.

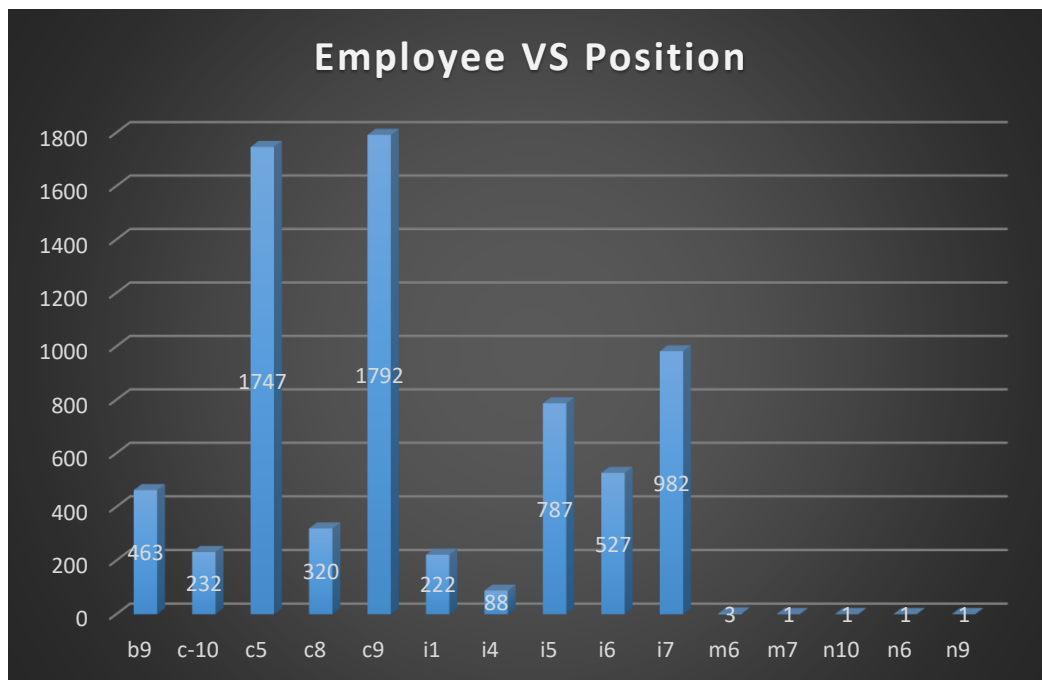| No of people working in different departments.	
Department	**Employee**
Finance Department	176
General Management	113
Human Resource Department	70
Marketing Department	202
Operations Department	1843
Production Department	246
Purchase Department	230
Sales Department	485
Service Department	1332
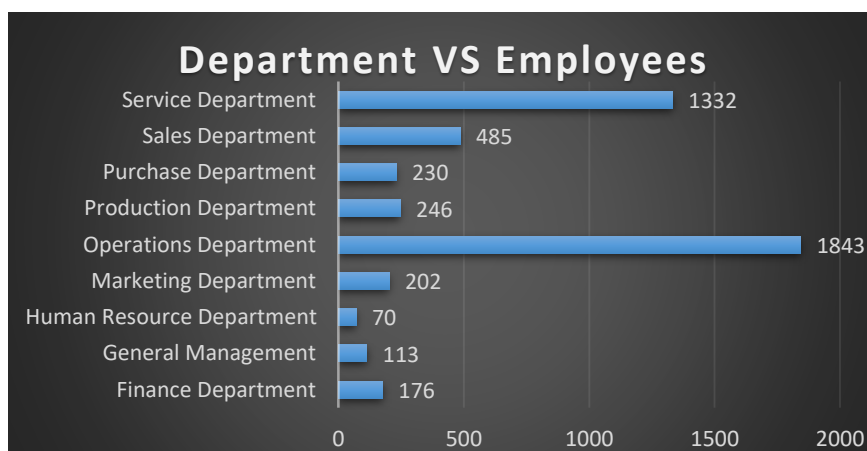
Key Insights:

- **Operations Department** is the largest in terms of workforce, employing **1843 employees,** which accounts for a **significant portion of the total staff.** This suggests that the company is likely operations-driver – perhaps a manufacturing, logistics, or customer service-heavy business.
- The **Service Department** follows with **1332 employees,** further reinforcing that customer or service operations are a core business function.

- **Sales Department** also has a sizable workforce (**485 employees**), indicating a strong focus on outbound activity or client engagement.
- **Human Resource Department (70 employees)** and **General Management (113 employees)** have the **smallest headcounts,** which is expected since these roles typically involve oversight and strategic planning, not large operational tasks.
- **Finance (176 employees)** and **Marketing (202 employees)** are mid-sized, reflecting support and revenue-generating functions.

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

Objective: 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.

Different position tiers of the people within the company	
Position	Employee
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

Insights:

- **Most Common Positions:**
    1. **Position c9** has the **highest number of employees (1,792).**
    2. **Position c5** follows closely with **1,747 employees.**
    3. These two alone account for a **significant bulk of the workforce,** suggesting they represent **entry-level or operations-heavy roles.**

- **Moderately Staffed Positions:**
    1. i7 (982), i5 (787), i6 (527), and b9 (463) also have **substantial headcounts,** likely representing skilled or mid-level positions.
    2. These roles could be associated with specific technical, production, or support functions.

- **Least Occupied Positions:**
    1. Positions such as **m6, m7, n6, n9, and n10** each have **only 1-3 employees.** This implies:
        I. These are **highly specialized, rare, or leadership positions.**
        II. Possibly **executive-level or niche technical roles.**

Key Takeawau:

The company's workforce is **concentrated in a few operational or frontline positions (c5, c9),** indicating either a manufacturing, service, or process-heavy business model. Minimal presence in top-tier roles reflects a **lean management structure.** Upskilling opportunities and internal mobility from lower to higher roles could be key to talent development.