

A background image showing two people in business suits shaking hands over a table. On the table, there are two white coffee cups on saucers. The image is dimly lit and has a professional, corporate feel.

# Hiring Process Analytics

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*By Thotamchetty Ranjith*

# Description

## *About Project:*

Hiring process is the fundamental and the most important function of a company. Here, the MNCs get to know about the major underlying trends about the hiring process. Trends such as- number of rejections, number of interviews, types of jobs, vacancies etc. are important for a company to analyze before hiring freshers or any other individual. Thus, making an opportunity for a Data Analyst job here too!

Being a Data Analyst, your job is to go through these trends and draw insights out of it for hiring department to work upon.

You are working for a MNC such as Google as a lead Data Analyst and the company has provided with the data records of their previous hirings and have asked you to answer certain questions making sense out of that data.

You are required to provide a detailed report for the below data record mentioning the answers of the questions that follows:

You are given a dataset of a company where the details about people who registered for a particular post in a department of this company. You are required to use your knowledge in statistics and use different formulas in excel and draw necessary conclusions about the company.

# Approach

We have been given a dataset of our company which contains details about people who registered for a particular post in a department of the company. We will be using our knowledge in statistics to analyze this dataset and draw necessary conclusions about the company.

EDA, or exploratory data analysis, is an essential step in the process of data analysis. It involves examining and understanding the data to gain insights, identify patterns, and prepare the data for further analysis.

*To perform exploratory data analysis, we will follow the following steps:*

1. Firstly, we will understand the data columns and their values to get a better idea of the dataset.
2. Then, we will check for any missing data in the dataset and deal with it accordingly.
3. Next, we will club any columns with multiple categories to simplify the analysis.
4. After that, we will check for any outliers present in the dataset.
5. We will then remove any outliers to make the data more reliable.
6. Finally, we will draw a summary of the data to get a better understanding of the dataset and make conclusions based on our analysis.

***The following are the questions we need to find the answers:***

- a) Hiring: How many males and females are Hired?
- b) Average Salary: What is the average salary offered in this company?
- c) Class Intervals: Draw the class intervals for salary in the company?
- d) Charts and Plots: Draw Pie Chart/Bar Graph (or any other graph) to show proportion of people working different department?
- e) Charts: Represent different post tiers using chart/graph

To answer these questions, we need to use the knowledge of Microsoft Excel topics includes such as formulas, Pivot Tables, slicers, conditional formatting, charts etc. and also we need to use our acute analysis skills for findings patterns, causations for given data.

***Tech Stack Used:***

Microsoft Excel 2019

Microsoft Powerpoint

A.) *Hiring: How many males and females are Hired*

Gender	No of applicants
-	10
Don't want to say	268
Female	1856
Male	2563
Grand Total	4697

The Total number of people hired are 4697

The number of males hired are 2563

The number of females hired are 1856

Gender	No of applicants
Female	1856
Male	2563
Grand Total	4419

***B.) Average Salary: What is the average salary offered in this company?***

The average salary is calculated by adding the sum of all the salaries offered to each position and person and dividing the sum by the total number of applicants

*The average salary offered in the company is ₹49983.03*

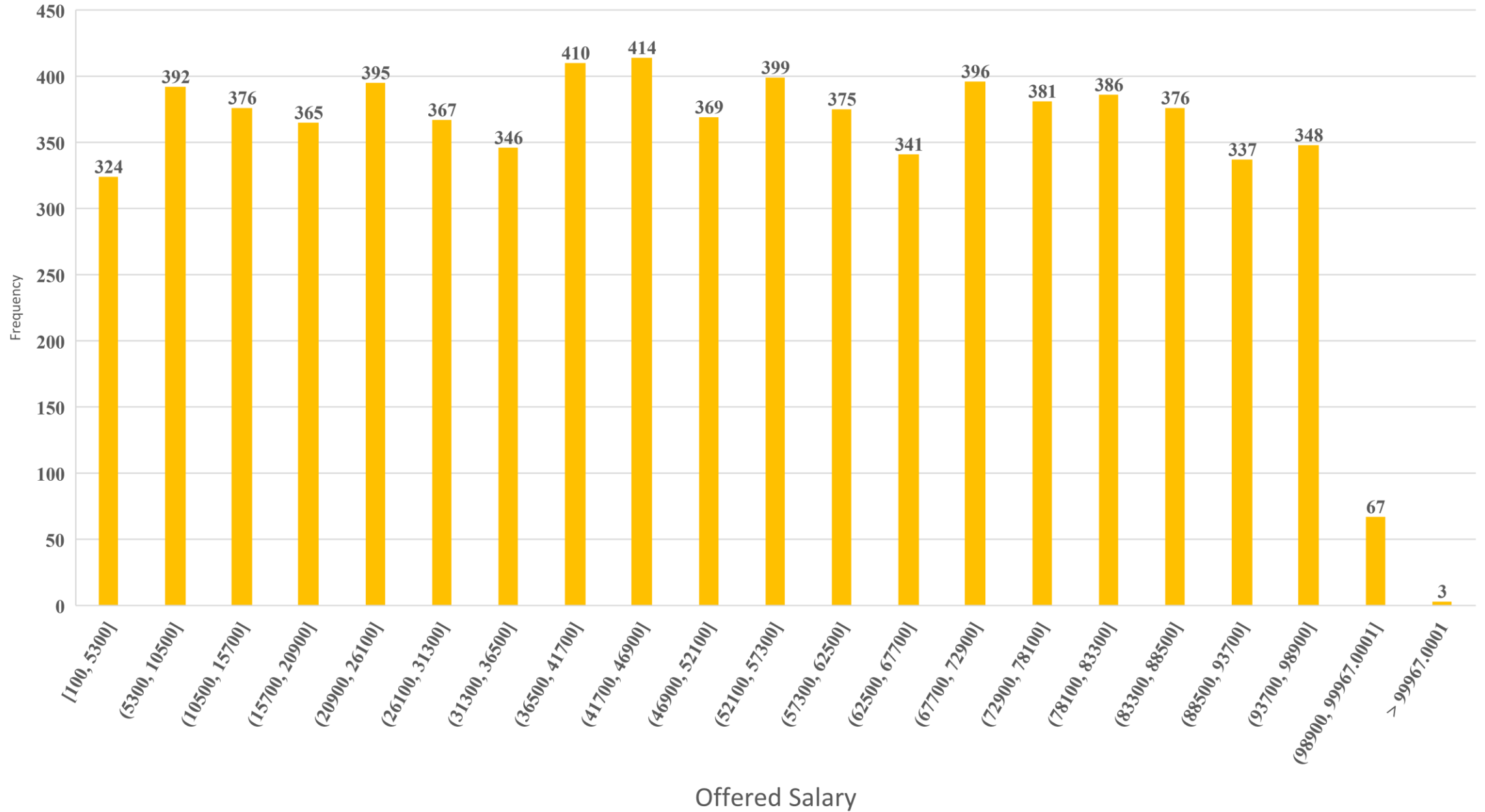
Department Name	Average of Offered Salary	No of Applicants
Finance Department	₹ 49,850.41	288
General Management	₹ 51,351.12	172
Human Resource Department	₹ 55,471.92	97
Marketing Department	₹ 52,056.46	325
Operations Department	₹ 49,295.73	2771
Production Department	₹ 50,572.62	380
Purchase Department	₹ 50,926.07	333
Sales Department	₹ 48,498.23	747
Service Department	₹ 50,504.04	2055
<b>Average salary</b>	<b>₹ 49,983.03</b>	<b>7168</b>

C.) *Class Intervals: Draw the class intervals for salary in the company?*

INTERVAL	Frequency	% of Employees in this range
0-10000	678	9.46%
10001-20000	732	10.21%
20001-30000	711	9.92%
30001-40000	710	9.91%
40001-50000	781	10.90%
50001-60000	750	10.46%
60001-70000	698	9.74%
70001-80000	734	10.24%
80001-90000	711	9.92%
90000-100000	659	9.19%
100001-110000	0	0.00%
110001-120000	0	0.00%
120001-130000	0	0.00%
130001-140000	0	0.00%
140001-150000	0	0.00%
150001-160000	0	0.00%
160001-170000	0	0.00%
170001-180000	0	0.00%
180001-190000	0	0.00%
190001-200000	1	0.01%
200001-300000	1	0.01%
300001-400000	2	0.03%
Grand Total	7168	100%

Note : The class interval here 10000

% of Employees in different salary range





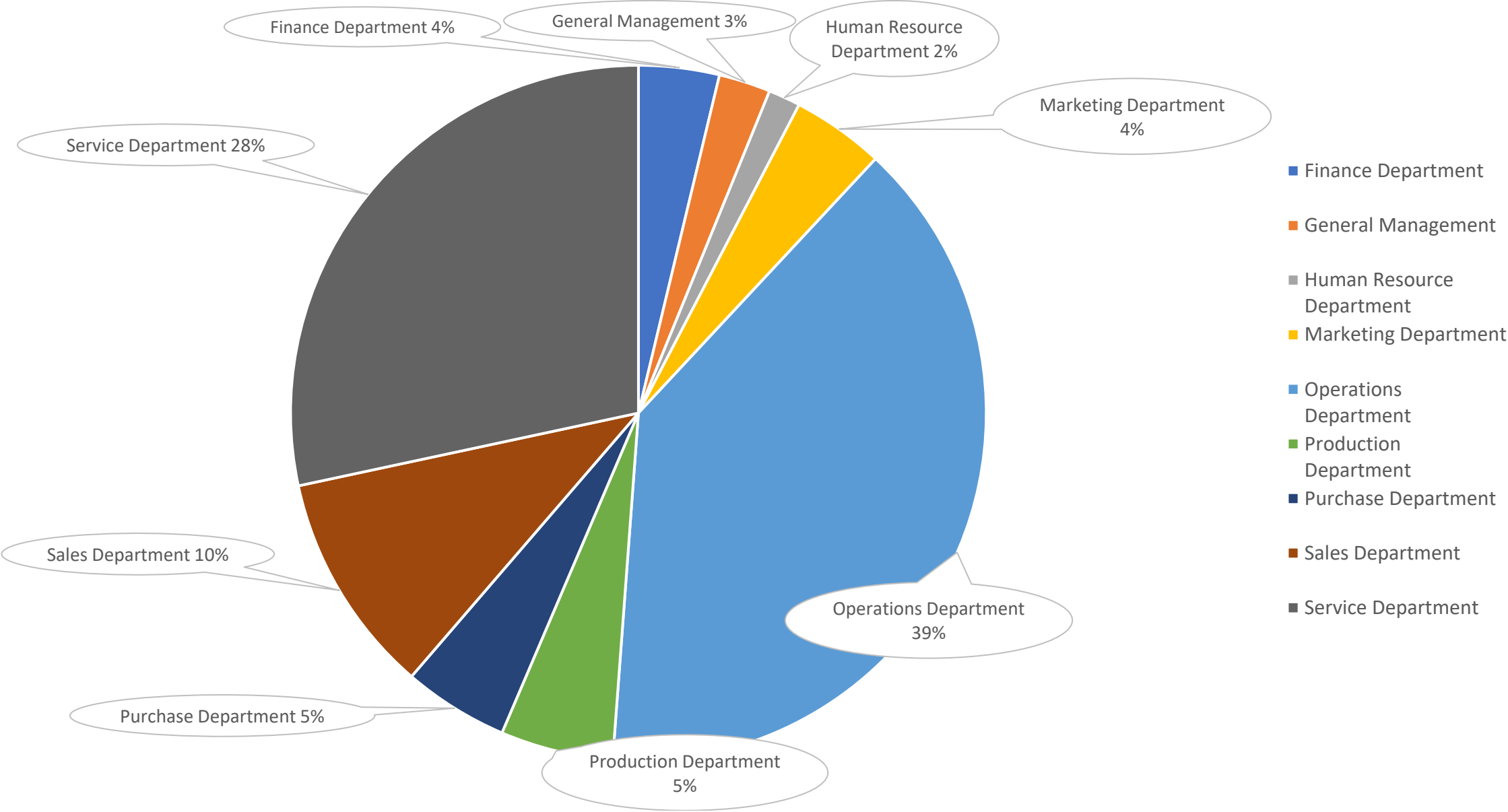
*D.) Charts and Plots: Draw Pie Chart/Bar Graph (or any other graph) to show proportion of people working different department?*

*Note:* Here we consider only hired people because the question asked is about proportion of people working in each department

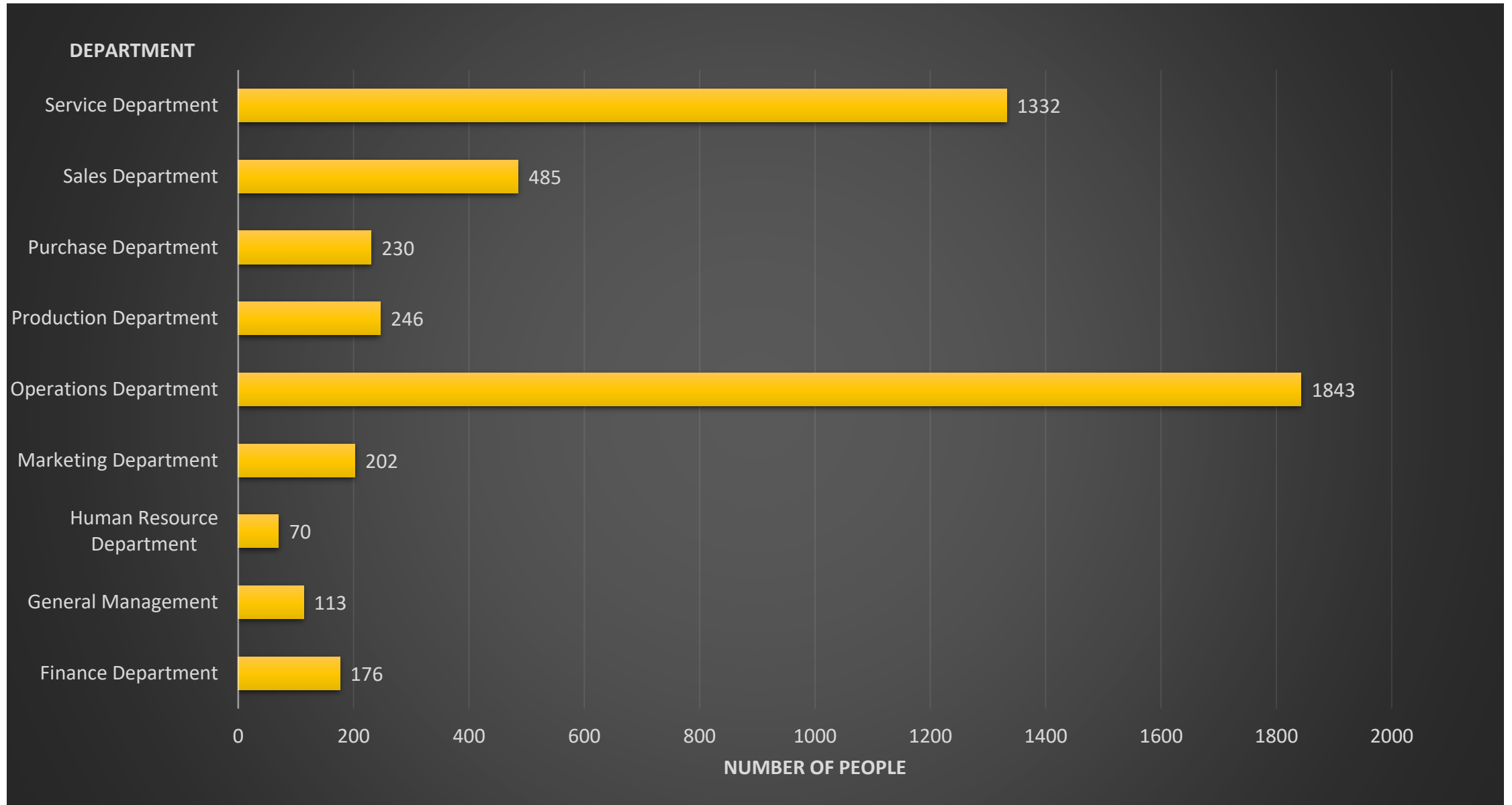
Department Name	No of People Working (Hired)
Finance Department	176
General Management	113
Human Resource Department	70
Marketing Department	202
Operations Department	1843
Production Department	246
Purchase Department	230
Sales Department	485
Service Department	1332
Grand Total	4697

The above table gives details about the number of people working in each department. In the following slides, we will see charts about the information in the table.

Pie chart on the proportion of people working in each department:



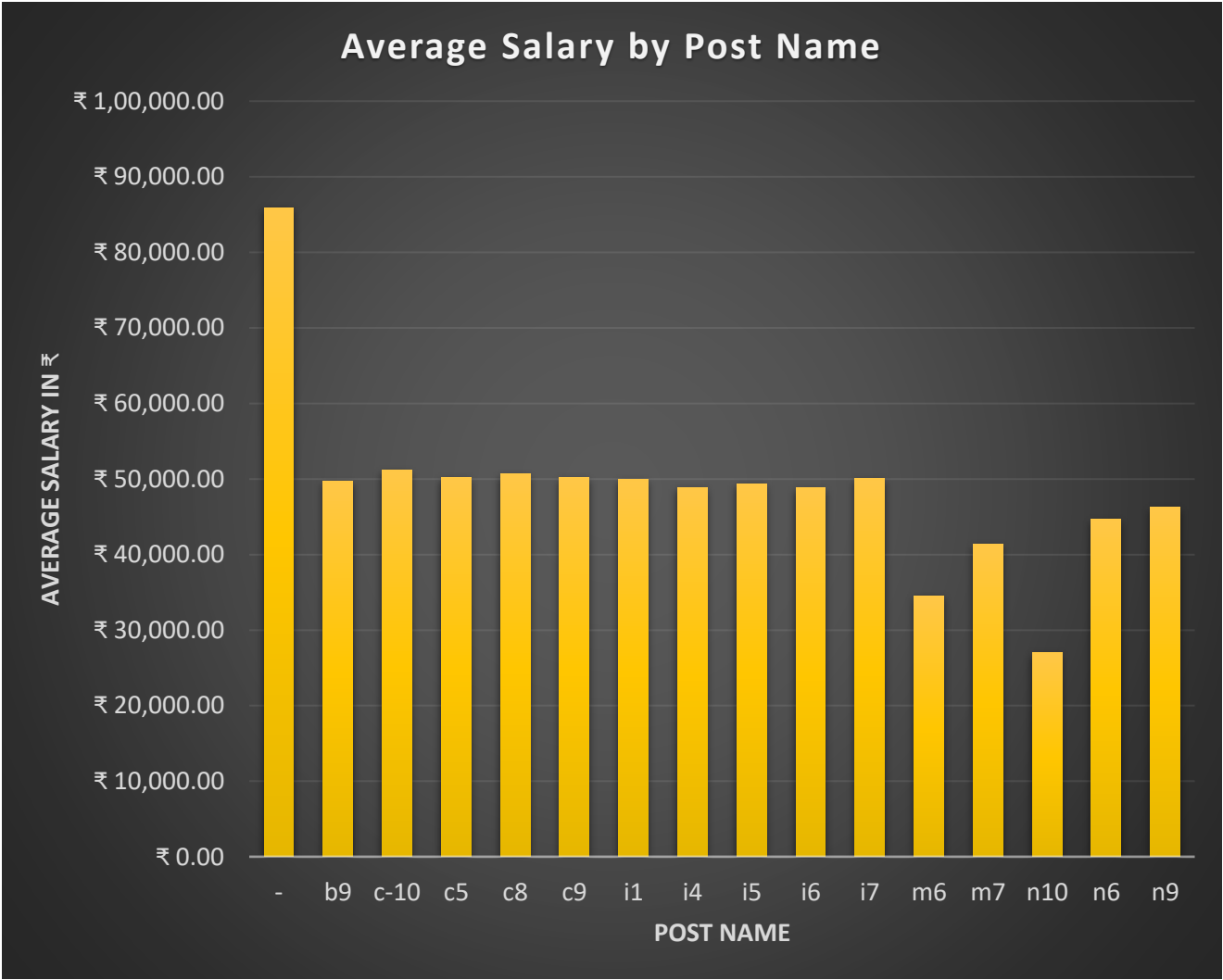
Bar Graph on number of people working in each department:



*E.) Charts: Represent different post tiers using chart/graph?*

**NOTE:** To represent different post tiers, the logic of average salary is used here i.e., the post having higher average salary will be top in hierarchical level and lowest will be in bottom.

Post Name	Average of Offered Salary
-	₹ 85,914.00
b9	₹ 49,666.76
c-10	₹ 51,134.62
c5	₹ 50,213.50
c8	₹ 50,701.46
c9	₹ 50,201.19
i1	₹ 49,943.94
i4	₹ 48,877.84
i5	₹ 49,391.93
i6	₹ 48,839.25
i7	₹ 50,065.36
m6	₹ 34,521.33
m7	₹ 41,402.00
n10	₹ 26,990.00
n6	₹ 44,700.00
n9	₹ 46,219.00
Average Salary	₹ 49,983.03



### ***Insights:***

- 1) Most of the company's money for salary is spent on Operations Department.
- 2) Highest rejection rate is the for the Finance Department and lowest rejection rate is for Human Resource Department.
- 3) The rejection rate for the candidates is **34.47%**, the rejection of male candidates is **37.25%** which is higher than female candidates i.e., **30.61%**
- 4) Female employees are paid 0.42% on an average more than male employees in this company.
- 5) The average offered salary for the people hired is less than that of the rejected salary in this company.
- 6) Female employees in the Human Resources department have higher average salary than any other female employees in different departments even though Human Resources have least number of female employees compared to other departments
- 7) The average salary of the candidate who got hired in the month of June in 2014 is higher than the candidates hired in the other months and most hiring is done in the month of July 2014.
- 8) The highest offered average salary for a post in this company is **₹130947.5** and it is for the post of **i-1** but there is a huge disparity of average salary for same post **i-1** between the male and female employee
- 9) The disparity is that average salary for the same post i-1 between male and female employee is almost **₹1,38,000**
- 10) The most number of people were hired on the **August 29<sup>th</sup> 2014** and number of people hired on the day are 71.

## ***Result:***

- During this project we learned how to tackle different situations in data analysis using Microsoft Excel
- This project makes us to understand how to summarize huge data and get insight from that. Pivot table, Slicer, Graph/Chart and Conditional formatting makes the task very easy
- At the end of this project, we gained skills in different aspects of MS Excel.

The Excel workbook with the data analysed can be accessed using the following link:

[https://docs.google.com/spreadsheets/d/1tOYXie-mBhYx4EzgzRhV7Bf0Dv-oN-TT/edit?usp=share\\_link&ouid=112622933348215332431&rtpof=true&sd=true](https://docs.google.com/spreadsheets/d/1tOYXie-mBhYx4EzgzRhV7Bf0Dv-oN-TT/edit?usp=share_link&ouid=112622933348215332431&rtpof=true&sd=true)

A bright yellow rectangular sticky note is tilted slightly to the right. It is held in place by a piece of translucent grey tape at the top-left corner. The words "Thank You!" are written in a bold, blue, hand-drawn font. The note has a subtle drop shadow, giving it a three-dimensional appearance against the plain white background.

Thank  
You!