Project Description

This project focuses on analyzing hiring data of a company and generate underlying insights and trends such as job roles, departments and salaries. This analysis is important for both the Hiring team and applicants to understand the hiring process of the company.

Overview of the dataset:

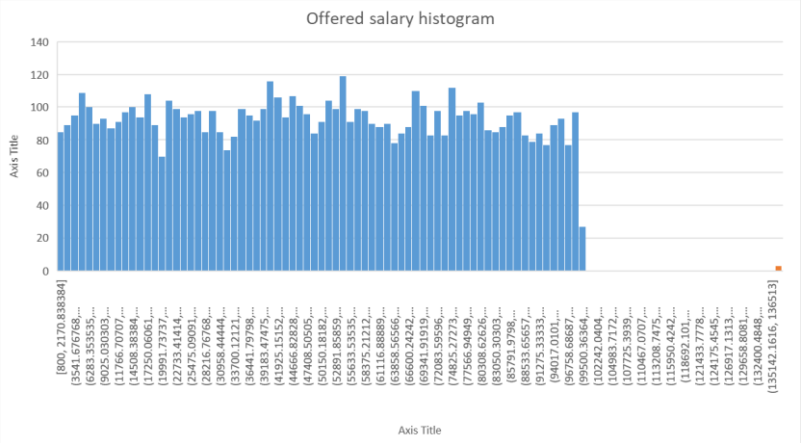
There are different kinds of columns like application_id, Interview date, status, gender, salary offered etc.

Data cleaning:

application_id	Interview Taken on	Status	Gender	Department	Post Name	Offered Salary
383422	01-05-2014 11:40	Hired	Male	Service Department	c8	56553
907518	06-05-2014 08:08	Hired	Female	Service Department	c5	22075
176719	06-05-2014 08:08	Rejected	Male	Service Department	c5	70069
429799	02-05-2014 16:28	Rejected	Female	Operations Department	i4	3207
253651	02-05-2014 16:32	Hired	Male	Operations Department	i4	29668
289907	01-05-2014 07:44	Hired	Male	Sales Department	-	85914
959124	06-05-2014 16:27	Rejected	Male	Sales Department	i7	69904
86642	09-05-2014 13:17	Rejected	Male	Sales Department	i7	11758
751029	02-05-2014 13:09	Hired	Female	Service Department	i4	15156
434547	02-05-2014 13:11	Rejected	Female	Service Department	i4	49515
518854	01-05-2014 09:00	Rejected	Male	Service Department	n10	26990
649039	07-05-2014 10:48	Hired	Female	Service Department	b9	200000
199526	07-05-2014 10:50	Hired	Male	Service Department	b9	86787
539803	15-05-2014 09:31	Hired	Male	Finance Department	b9	2308
191009	09-05-2014 12:48	Hired	Hired	Service Department	i7	56688
195323	09-05-2014 12:48	Hired	-	Service Department	i7	81757
51318	02-05-2014 08:07	Hired	Male	Service Department	i5	15134
742283	02-05-2014 08:11	Rejected	-	Service Department	i5	100
513166	01-05-2014 22:53	Hired	Female	Operations Department	i1	73579
791372	01-05-2014 22:54	Rejected	Male	Operations Department	i1	50351
47857	01-05-2014 22:55	Rejected	Female	Operations Department	i1	38462
834101	01-05-2014 22:53	Rejected	Don't want to say	Operations Department	i1	82510

There are rows with null values (marked '-') and not specified gender. We find such rows and remove them.

Removing outliers in the offered salary column using interquartile range. Given below are the 3 rows which are outliers.



Quartile 1	25420.5
Quartile 3	74238.5
Inter quartile range	48818
Fence multiplier	1.5
Lower outliers(<=)	-47806.5
Higher outliers(>=)	147465.5

649039	07-05-2014 10:48	Hired	Female	Service Department	b9	200000
874368	21-07-2014 15:39	Hired	Male	General Management	i7	300000
795330	15-06-2014 09:45	Hired	Female	General Management	i4	400000

There are a total of 6755 records after removing outliers and null values.

Approach

Using advanced excel formulae, formatting, pivot tables and charts we perform the analysis on the given data. We would answer all the hiring team questions using excel pivot tables and charts.

Tech-Stack Used

We will use Microsoft Excel to perform data cleaning and analysis.

Insights

A. Hiring: Process of intaking of people into an organization for different kinds of positions. We need to find how many males and females are Hired.

Gender	Count
Female	**1854**
Hired	1854
Male	**2561**
Hired	2561
Grand Total	**4415**

Out of 6755 candidates 4415 were hired which is a 65% hiring rate. A 58% of men and 42% women were 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. What is the average salary offered in this company?

Average Salary(Overall)
49,879.65

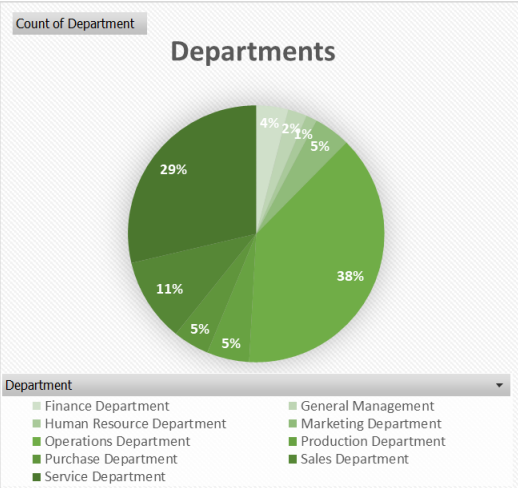
C. Department wise salaries: Getting the departments sorted by the highest average salaries

Department	Average of Offered Salary
General Management	55,668.90
Purchase Department	52,667.48
Service Department	50,810.64
Finance Department	50,400.33
Sales Department	49,210.78
Production Department	49,145.10
Operations Department	48,922.68
Marketing Department	48,653.46
Human Resource Department	48,557.89
Grand Total	**49,879.65**

D. Charts and Plots: This is one of the most important parts of analysis to visualize the data. Drawing a pie chart to show proportion of people working different departments.

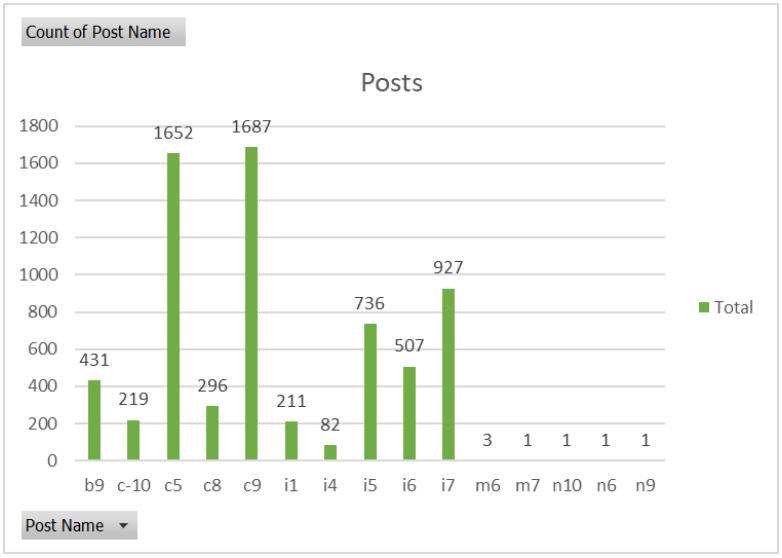
Most employees are from Operations and service departments.

Department	Count of Department
Finance Department	272
General Management	161
Human Resource Department	93
Marketing Department	312
Operations Department	2599
Production Department	361
Purchase Department	308
Sales Department	713
Service Department	1936
Grand Total	**6755**



E. Charts: Use different charts and graphs to perform the task representing the data. Representing different post tiers using graph.

Post	Count of Post Name
b9	431
c-10	219
c5	1652
c8	296
c9	1687
i1	211
i4	82
i5	736
i6	507
i7	927
m6	3
m7	1
n10	1
n6	1
n9	1
Grand Total	**6755**



Result

We have obtained insights about different salary ranges, posts, department distribution and number of males and females hired through the project. This project gives us a better understanding of usage of pivot tables and charts in excel.