Hiring Process Analytics

Project Description

The hiring process is the foundational and crucial part of a business. The MNCs learn about the key underlying trends relating to the hiring process here. Before hiring freshmen or anybody else, a corporation should consider trends such as the number of rejections, interviews, sorts of jobs, openings, etc. This kind of research is essential for a company's hiring department to obtain the appropriate insights from the data.

I'm going to gather the following information for this project:

A. Number of males and females hired in the company.
B. Average salary offered by the company in various departments.
C. Finding the class interval for salary in the company.
D. Creating a graph to show proportion of people working in different departments.
E. Creating a bar graph to show different number of posts.

Approach

First, I examined the data set, including all of the various categories in the sheet like various departments, statuses, genders, various posts/tiers and range of salaries offered, to gain a sense of the information accessible to me. Then, after sorting the salary offered column in ascending and descending order, I looked at the outliers to determine the lowest and highest salaries in the range. Then, after learning about the salary data outliers, I discovered the average omitting these outliers. Then I examined and comprehended all of the questions asked and summarized my method to solving these questions. Then I applied various methods and formulas in excel sheet and solved the questions.

Tech-Stack Used

I selected Microsoft Excel v2013 to find the answers to the questions and to make all the graphs and charts.

Insights

I learned how data analysts analyze a company's hiring process trends. Working with the hiring team, analysts can derive numerous helpful insights from the collected data, allowing them to forecast the information about number of openings in the company for various departments and roles/posts, number of hiring, range of salaries offered to various departments and tiers, etc.

Result

By completing this project, I was able to solidify my understanding of numerous statistics principles and various Excel formulas and functions used for statistics such as finding sum, average, using Pivot tables for categorizing the data, drawing class intervals and for finding distinct or unique counts and to find average by category, also creating various charts and graphs for the data to visualize the proportion of numerical data which will be helpful for others to easily understand the trends in hiring process of the company. It assists me in honing my statistics and excel skills.

Finding Outliers

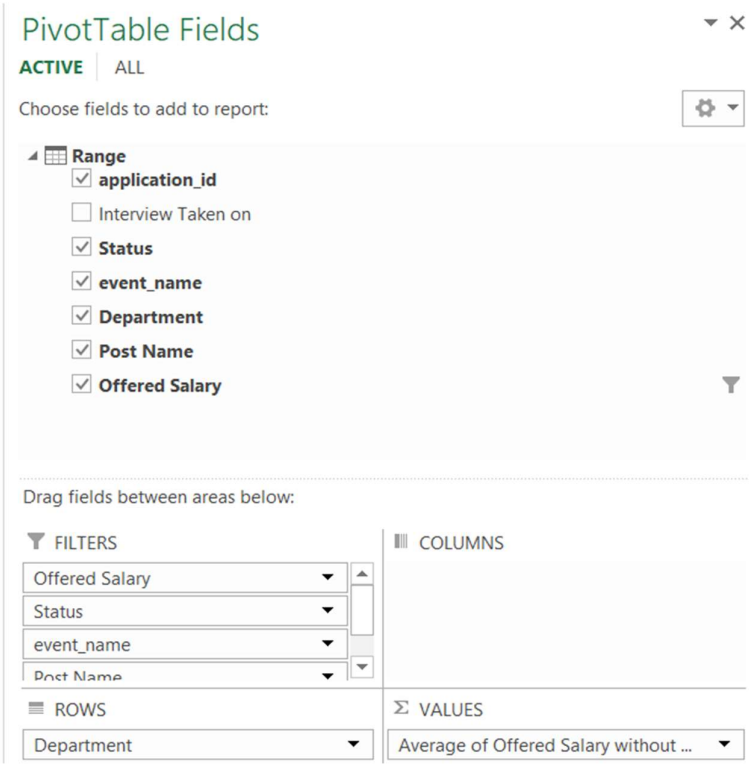
	Department	Post Name	Offered Salary
2	Service Department	i5	100
3	Service Department	m6	800
4	Marketing Department	c9	1007
5	General Management	i7	1022
6	Operations Department	c9	1027
7	Service Department	c8	1035
8	Finance Department	c5	1038
9	Service Department	c8	1042
0	Service Department	i6	1074
1	Service Department	c5	1079
2	Service Department	b9	1105
3	Finance Department	c5	1141
4	Operations Department	c5	1155
5	Operations Department	c9	1177
6	Operations Department	b9	1185
7	Service Department	c9	1188
7160	Operations Department	i7	99929
7161	Production Department	i1	99939
7162	Operations Department	c5	99948
7163	Service Department	c9	99950
7164	Service Department	c9	99953
7165	Service Department	c8	99967
7166	Service Department	b9	200000
7167	General Management	i7	300000
7168	General Management	i4	400000

After omitting these outliers by filtering, I found the average of salaries offered in various departments using pivot table as shown below.

1. **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.
   Your task: What is the average salary offered in this company?

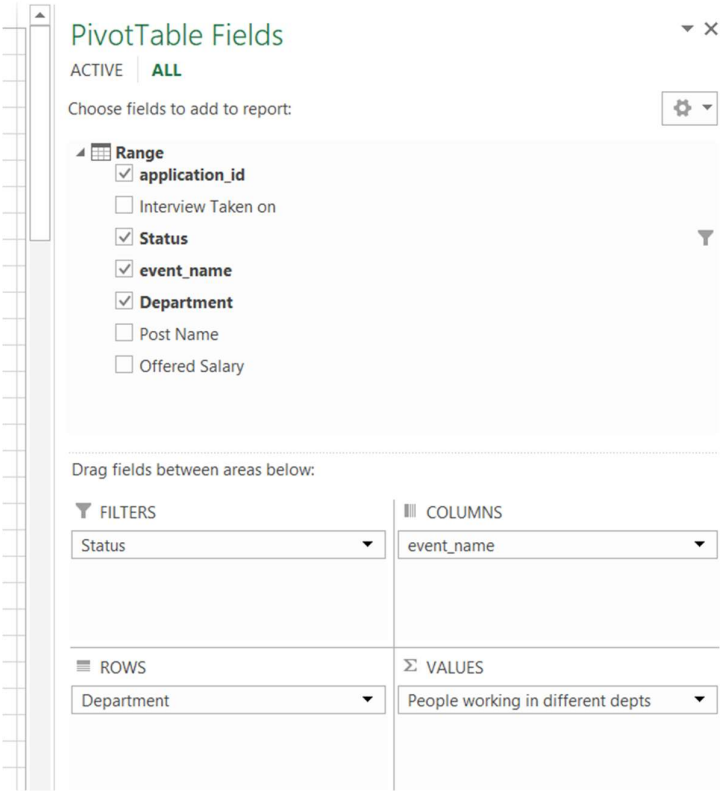
Offered Salary	(Multiple Items)
Status	All
event_name	All
Post Name	All
application_id	All

Row Labels	Average of Offered Salary without outliers
Finance Department	49628.00694
General Management	55295.29412
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	50606
Grand Total	**49892.13**



2. **Hiring:** Process of in taking of people into an organization for different kinds of positions.
   Your task: How many males and females are hired?

	A	B	C	D	E	F
1	Status	Hired				
2						
3	**People working in different depts**	**Column Labels**				
4	**Row Labels**	**-**	**Don't want to say**	**Female**	**Male**	**Grand Total**
5	Finance Department		12	154	10	176
6	General Management		8	95	10	113
7	Human Resource Department		1	26	43	70
8	Marketing Department	1	8	66	127	202
9	Operations Department	3	112	694	1033	1841
10	Production Department		14	104	128	246
11	Purchase Department		21	76	133	230
12	Sales Department	1	19	171	294	485
13	Service Department	5	73	469	785	1332
14	**Grand Total**	**10**	**268**	**1853**	**2560**	**4686**
15						



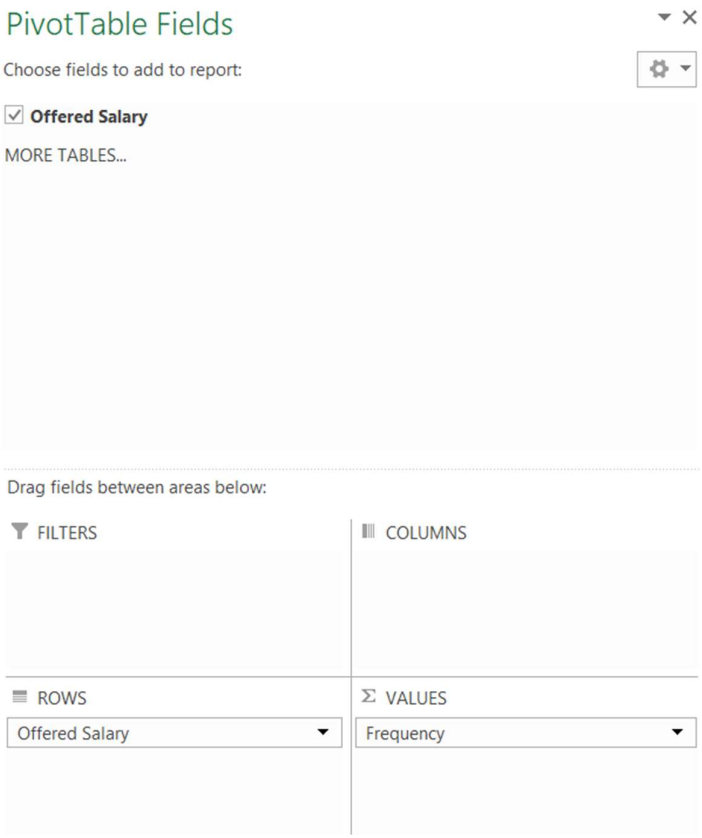
Males- 2560

Females- 1853

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

Class Intervals of salary	Frequency
<1000 or (blank)	2
1000-9999	676
10000-18999	654
19000-27999	646
28000-36999	625
37000-45999	719
46000-54999	678
55000-63999	636
64000-72999	639
73000-81999	683
82000-90999	610
91000-100000	596
>100000	3
Grand Total	**7167**

Outliers

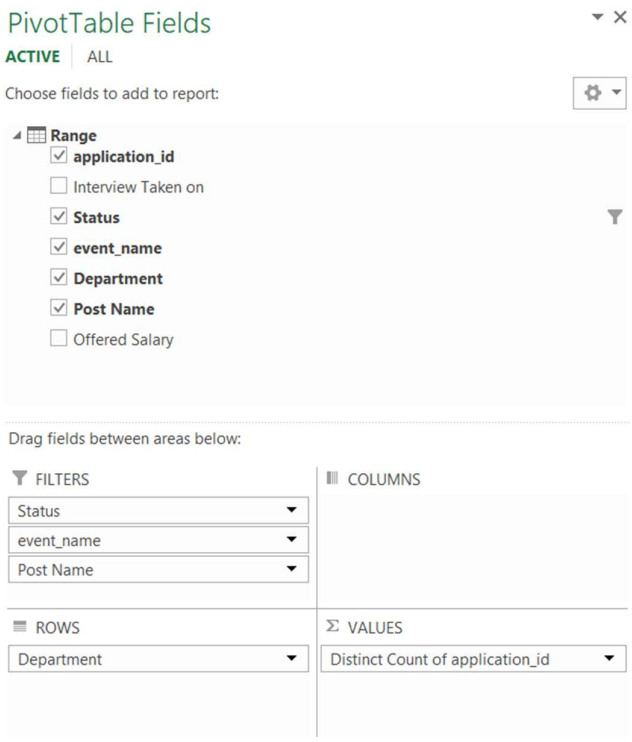


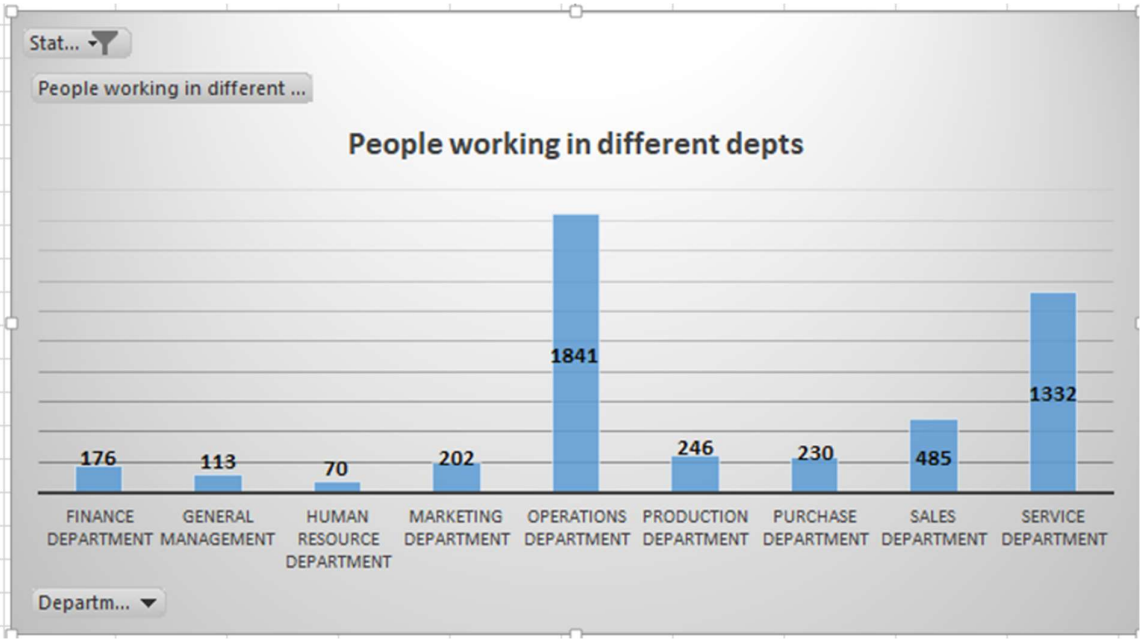
4. **Charts and Plots:** This is one of the most important part of analysis to visualize the data.
   Your task: Draw Pie Chart / Bar Graph (or any other graph) to show proportion of people working different department?

Status	Hired
event_name	All
Post Name	All

Row Labels	Distinct Count of application_id
Finance Department	176
General Management	113
Human Resource Department	70
Marketing Department	202
Operations Department	1841
Production Department	246
Purchase Department	230
Sales Department	485
Service Department	1332
Grand Total	**4686**

Counting only working people, so filtering with status; hired.

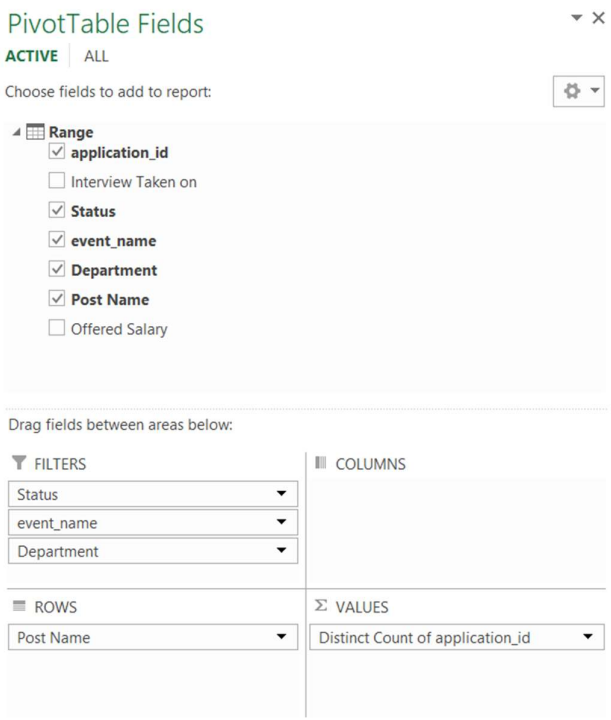


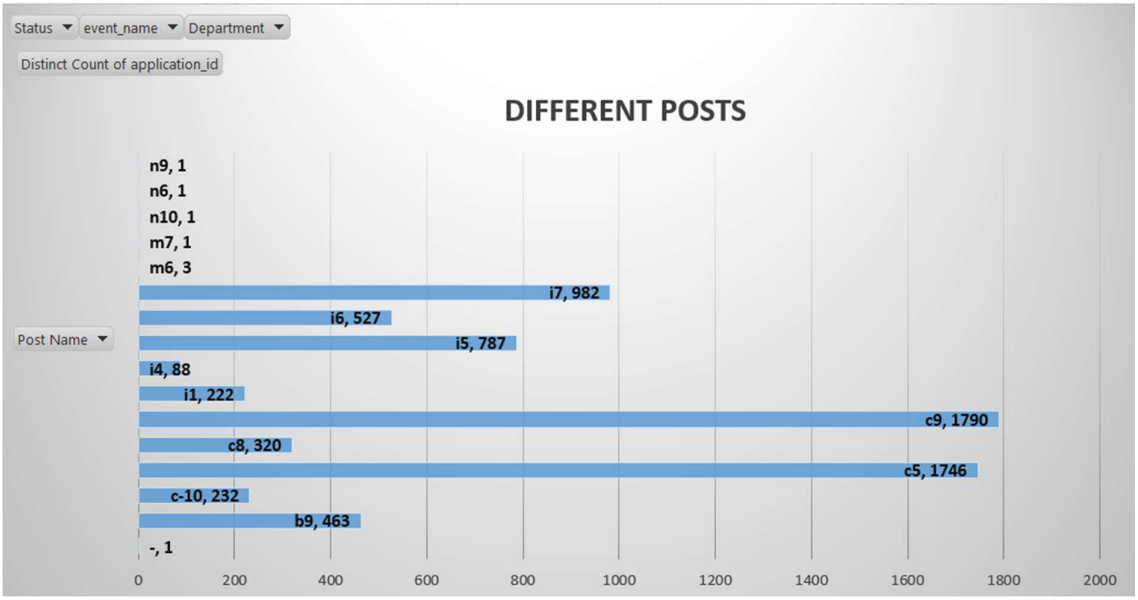


5. **Charts:** Use different charts and graphs to perform the task representing the data.
   Your task: Represent different post tiers using chart/graph?

Status	All
event_name	All
Department	All

Row Labels	Distinct Count of application_id
-	1
b9	463
c-10	232
c5	1746
c8	320
c9	1790
i1	222
i4	88
i5	787
i6	527
i7	982
m6	3
m7	1
n10	1
n6	1
n9	1
Grand Total	**7141**


PivotTable Fields
ACTIVE
ALL
Choose fields to add to report:
Range
application_id
Interview Taken on
Status
event_name
Department
Post Name
Offered Salary
Drag fields between areas below:
FILTERS
COLUMNS
Status
event_name
Department
ROWS
VALUES
Post Name
Distinct Count of application_id


Status
event_name
Department
Distinct Count of application_id
DIFFERENT POSTS
Post Name
n9, 1
n6, 1
n10, 1
m7, 1
m6, 3
i7, 982
i6, 527
i5, 787
i4, 88
i1, 222
c9, 1790
c8, 320
c5, 1746
c-10, 232
b9, 463
-, 1
0
200
400
600
800
1000
1200
1400
1600
1800
2000