NAME: MUSKAN PRITAM

PROJECT 4: Hiring Process Analytics

Software Used:

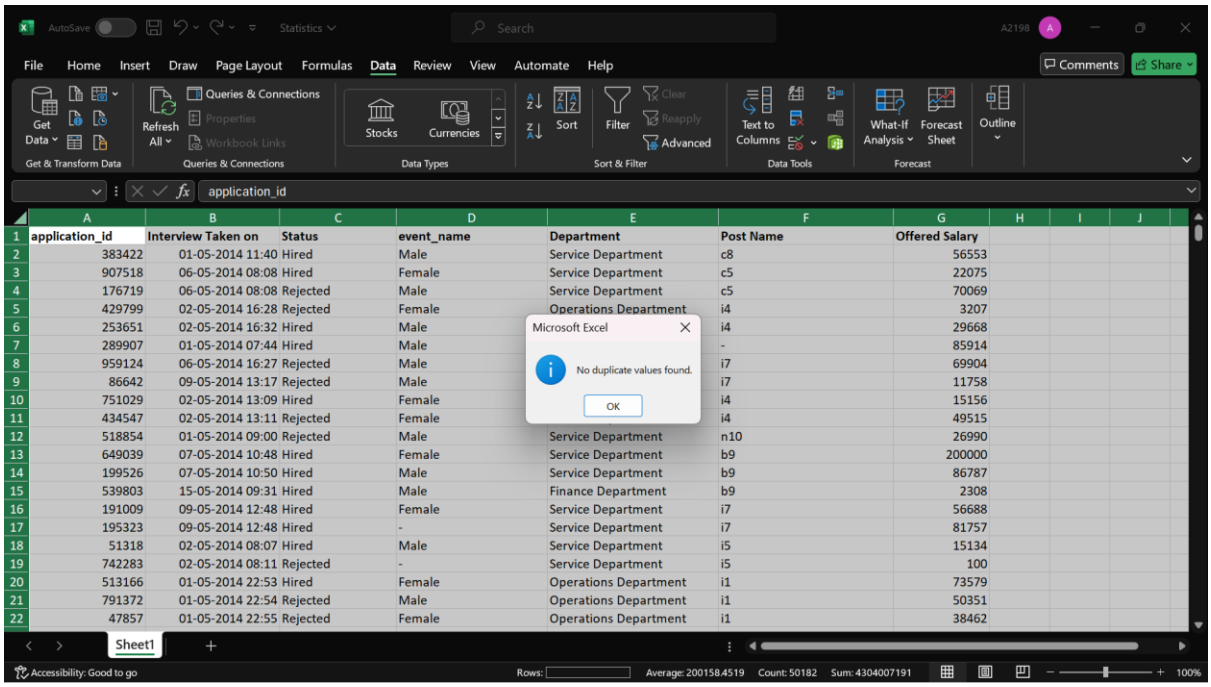
Microsoft Excel (365)

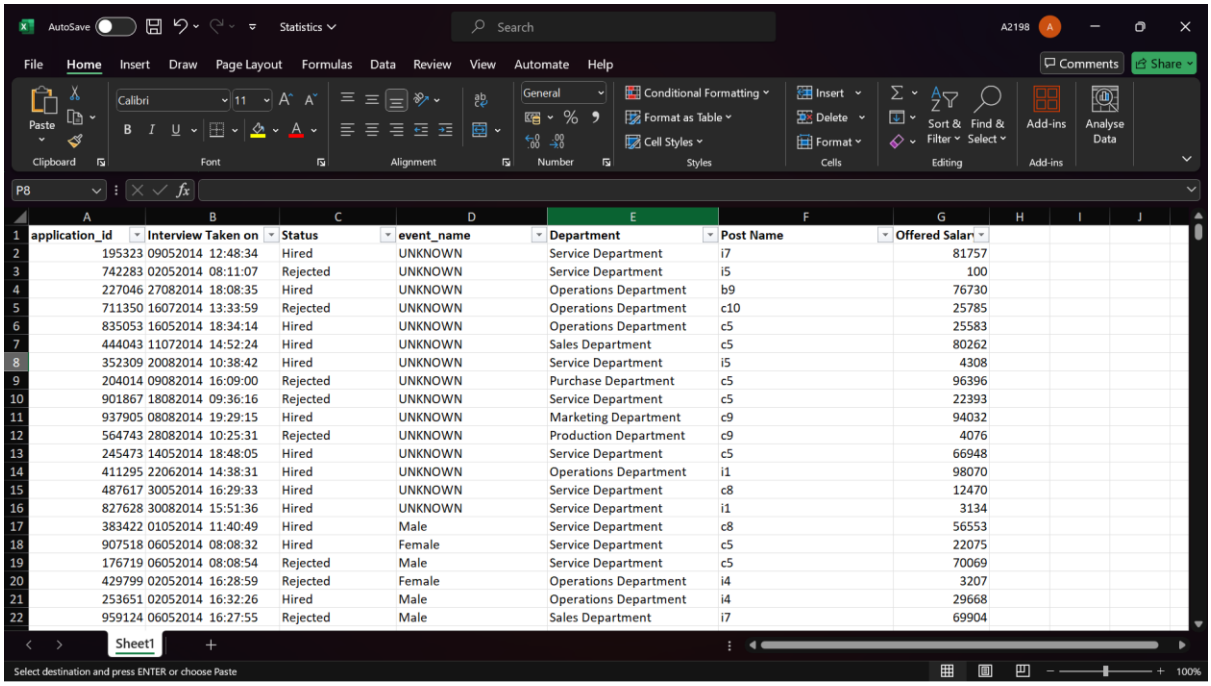
Setting up the workbook:

We have been provided with a database which we have to import into our workbook. So, we downloaded the database and opened it in a new excel workbook by Click on file and then open option. Select the database and it will be opened in our Excel workbook. Now we are ready to work with the given database.

Continuing after this:

Here we checked for multiple rows having duplicate records but found none. Hence, we went to check for the blank cells in the excel sheet. So, we moved further for checking the blank cells, we used conditional formatting two resolve the blanks filling colour in the cells in the blank cells and filtering them according to colour. Then I either delete them if the percentage of blank cells is low or updating the blank cells with a text "unknown."





application_id	Interview Taken on	Status	event_name	Department	Post Name	Offered Salar
195323	09052014 12:48:34	Hired	UNKNOWN	Service Department	i7	81757
742283	02052014 08:11:07	Rejected	UNKNOWN	Service Department	i5	100
227046	27082014 18:08:35	Hired	UNKNOWN	Operations Department	b9	76730
711350	16072014 13:33:59	Rejected	UNKNOWN	Operations Department	c10	25785
835053	16052014 18:34:14	Hired	UNKNOWN	Operations Department	c5	25583
444043	11072014 14:52:24	Hired	UNKNOWN	Sales Department	c5	80262
352309	20082014 10:38:42	Hired	UNKNOWN	Service Department	i5	4308
204014	09082014 16:09:00	Rejected	UNKNOWN	Purchase Department	c5	96396
901867	18082014 09:36:16	Rejected	UNKNOWN	Service Department	c5	22393
937905	08082014 19:29:15	Hired	UNKNOWN	Marketing Department	c9	94032
564743	28082014 10:25:31	Rejected	UNKNOWN	Production Department	c9	4076
245473	14052014 18:48:05	Hired	UNKNOWN	Service Department	c5	66948
411295	22062014 14:38:31	Hired	UNKNOWN	Operations Department	i1	98070
487617	30052014 16:29:33	Hired	UNKNOWN	Service Department	c8	12470
827628	30082014 15:51:36	Hired	UNKNOWN	Service Department	i1	3134
383422	01052014 11:40:49	Hired	Male	Service Department	c8	56553
907518	06052014 08:08:32	Hired	Female	Service Department	c5	22075
176719	06052014 08:08:54	Rejected	Male	Service Department	c5	70069
429799	02052014 16:28:59	Rejected	Female	Operations Department	i4	3207
253651	02052014 16:32:26	Hired	Male	Operations Department	i4	29668
959124	06052014 16:27:55	Rejected	Male	Sales Department	i7	69904

Data Analytics Tasks:

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

Your Task: Determine the gender distribution of hires. How many males and females have been hired by the company?

Explanation: in this task we were asked to count the number of males and females hired by the company which determines the gender distribution of the company. This is one of the factors that are seen. But before counting the number of males and females we need to manage the blank spaces in that column. So, for doing that we did conditional formatting for managing the blank cells and filling it by a colour. Then we filled the cells with the word “unknown.”

To get the number of females, we can use the formula:

=COUNTIF(D2:D7168, “=Female”) = 2675

To get the number of males, we can use the formula:

=COUNTIF(D2:D7168, “=Male”) = 4085

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.

Your Task: What is the average salary offered by this company? Use Excel functions to calculate this.

Explanation: in this task we calculated average salary offered by this company which came out to be as follows. We used the function average with the range of the table to calculate the average salary offered by this company.

=AVERAGE (G2:G7168)

Output will be: 55377

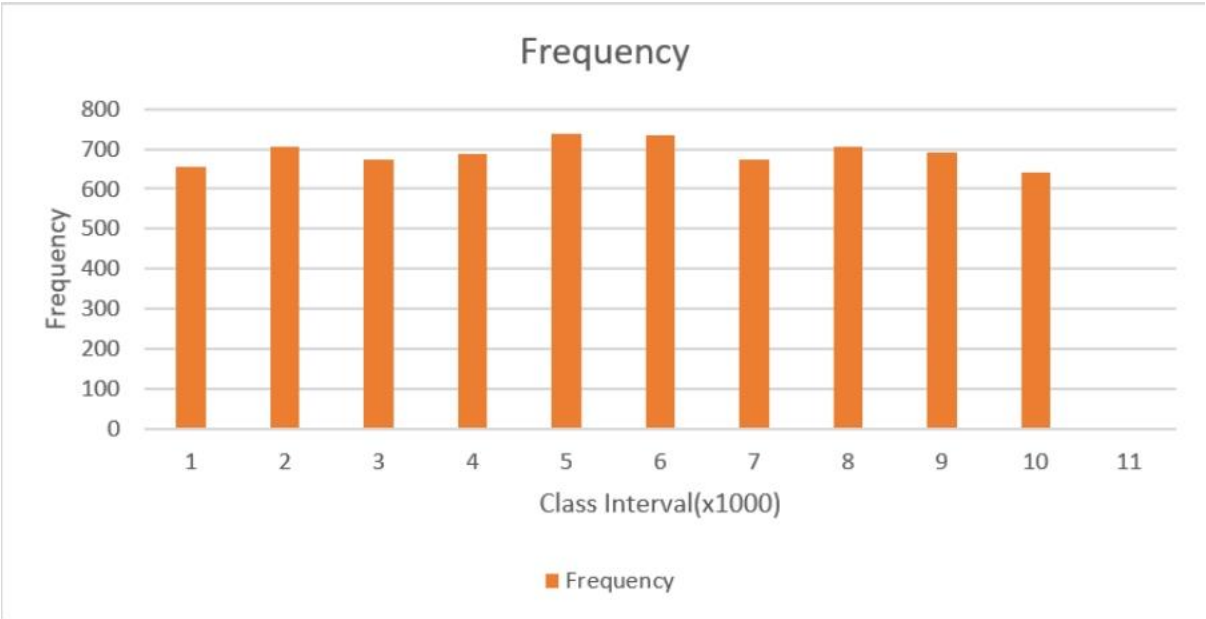
C. Salary Distribution: Class intervals represent ranges of values, in this case, salary ranges. The class interval is the difference between the upper and lower limits of a class.

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

In this task, we will create class intervals for salaries to understand their distribution within the company. we will generate a frequency distribution to visualize how salaries are spread across different ranges. This analysis helps identify salary patterns and potential disparities.

We will be using frequency formula calculating the salary distribution. But before that, we must remove all the duplicate data from the salary tab. Now when the duplicates are removed, we have to now create a class interval column with the intervals of your choice and then in another column, name it frequency. the formula:
=FREQUENCY(G2:G6912,H2:H11).
Now select the class interval and frequency column and go to insert tab and then click on column or bar chart. The chart will be displayed.

Class Interval	Frequency
10000	656
20000	705
30000	675
40000	687
50000	738
60000	734
70000	673
80000	707
90000	691
100000	641
400000	3



Output: by analysing the above graph we can see the distribution of salary in the company.

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

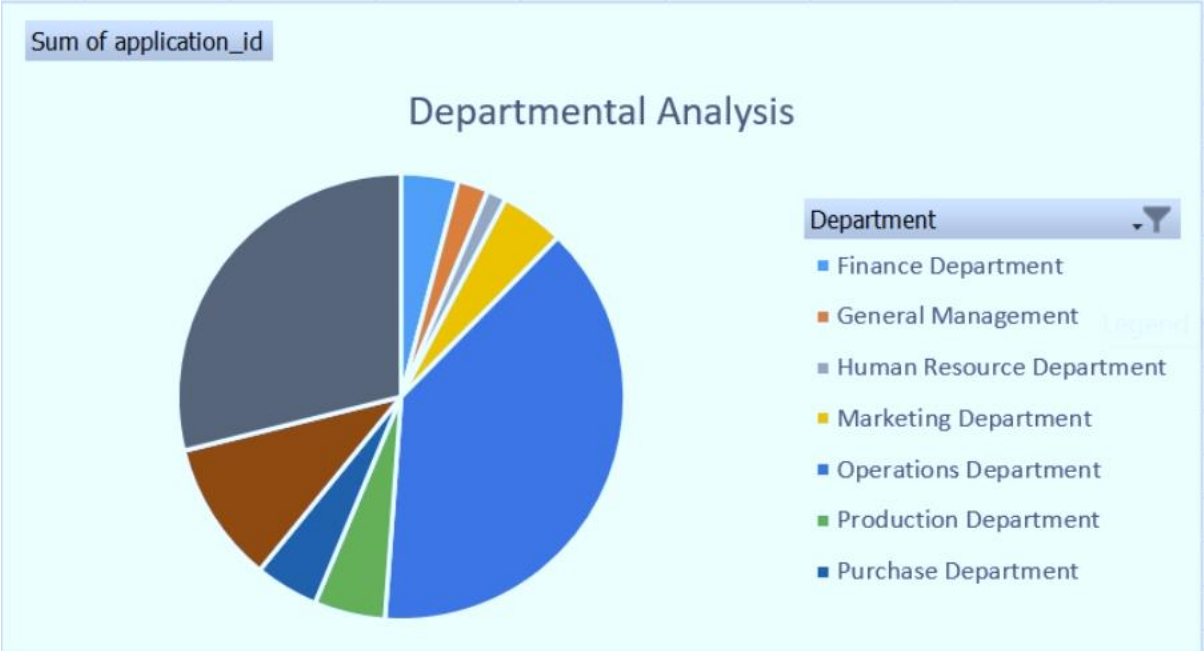
Your Task: Use a pie chart, bar graph, or any other suitable visualization to show the proportion of people working in different departments.

This task we are asked to show the proportion of employees in different departments. And this will be done by using pie chart. And for doing that we first need to filter out the hired employees only from the filter option in the status column and then create a pivot table which will make it easier for us to analyse and make a pie chart and thus work on it.

To create the pivot table, we first remove all the duplicate entries from the application_id column. Next, we select the entire database and click on the insert tab>pivot table.

Drag the department to the rows and application_id to the values column. We have our pivot table created.

Select the entire pivot table and then click on insert>pie chart. We have our pie chart with the different department's employee proportions shown.



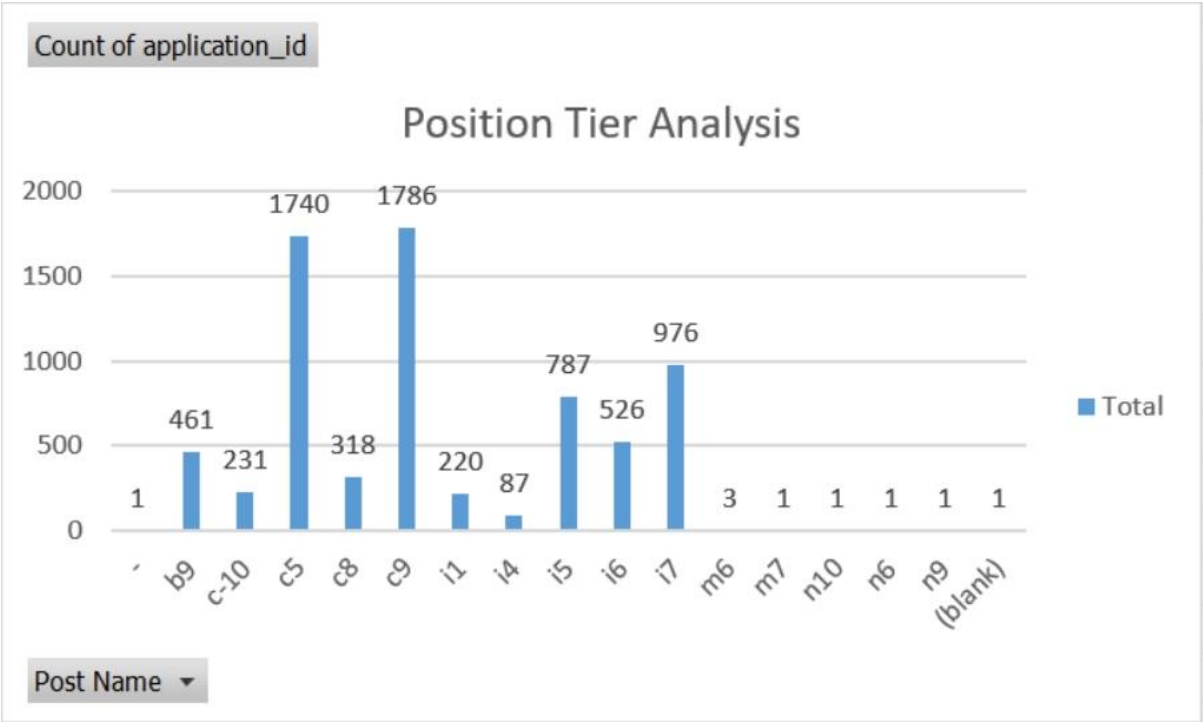
Output: analysing the above pie chart we can see that the Finance Department has the highest number of employees followed by the Service Department and The Human Resource Department has the lowest number of employees.

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

Your Task: 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.

In this task, we have to present a pie chart of the employee distribution at different tiers in the company. We do so by first creating a pivot table. we now drag post name in the row's column.

After creating the pivot table, we now create a bar or a column chart to show the number of people in different positions in the company.



Output: by analysing the above table, we can see the number of people in distinct positions in the company.

CONCLUSION: BY USING EXCEL WE ARE PROVIDED WITH VARIETY OF OPTIONS FOR FUNCTIONS AND GRAPHS, WHICH MAKES IT EASIER TO WORK ON VARIOUS AND LARGE NUMBER OF DATA.

!!THANK YOU!!