Excel Case Study

📄 Pre-requisites

Hope you have gone through the self-learning content for this session on the PRISM portal.

By the End of This Session, You Will:

- Work on a case study pertaining to the HR department of an organization.

- Answer vital questions about the case study on the company's policies for their employees.

- Use the concepts that you've learned in the previous sessions to answer these questions in a structured way.

What Have You Learned So Far?

- Basics of Excel – Terminology, Menu Options, Formulas and Functions.

- How to refer data in a cell and assign custom names using Named Ranges.

- Several ways to format rows, cells and columns.

- How to perform statistical analysis in Excel.

- Usage of Pivot Tables to perform much better analysis.

- Several advanced data validation techniques, such as dependent dropdown lists and using formulas as a part of data validations.

- How to automate repetitive Excel tasks using Macros and VBA.

Poll Time

Q. Which Excel function is used to extract a specific part of a text string based on its position?

a. CONCATENATE()

b. LEFT()
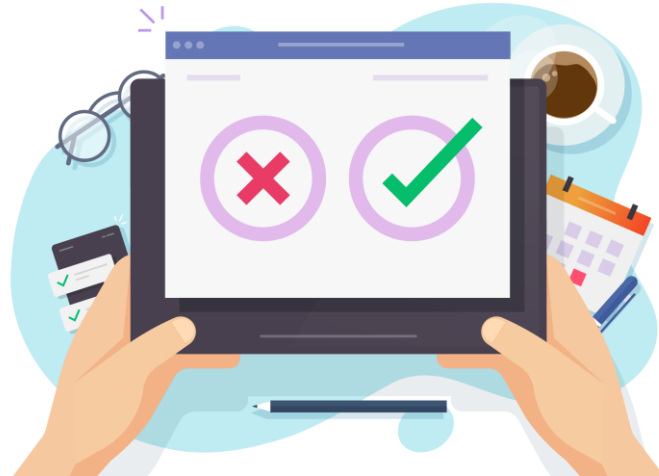
c. UPPER()

d. COUNTIF()

Poll Time

Q. Which Excel function is used to extract a specific part of a text string based on its position?

a. CONCATENATE()

b. **LEFT()**

c. UPPER()

d. COUNTIF()

📄 Case Study – Problem Statement

Problem Statement

Ammy is an HR professional who wants your help in analyzing the data containing information about different aspects of the human resources in her company. She wants you to analyze 3 main aspects of the company.

Areas to Focus

Areas to Focus

Average salaries of employees

Bonuses given to employees

Which department is the best to work in?

Poll Time

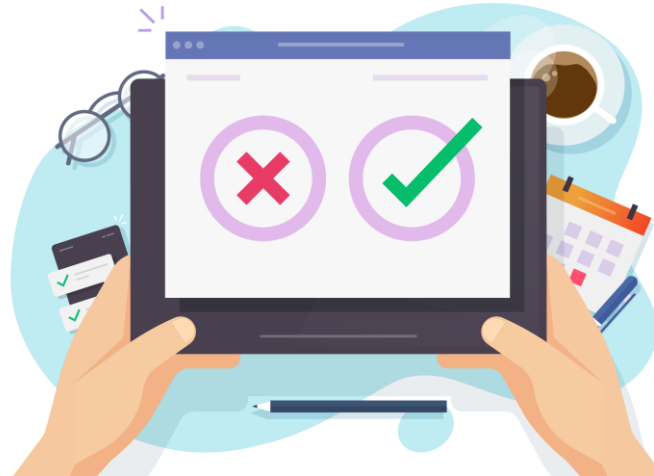Q. Which option allows you to change the summary function for a value field in a Pivot Table?

a.   Value field settings

b.   Pivot Table options

c.   Data analysis

d.   Conditional formatting

Poll Time

Q. Which option allows you to change the summary function for a value field in a Pivot Table?

a. **Value field settings**
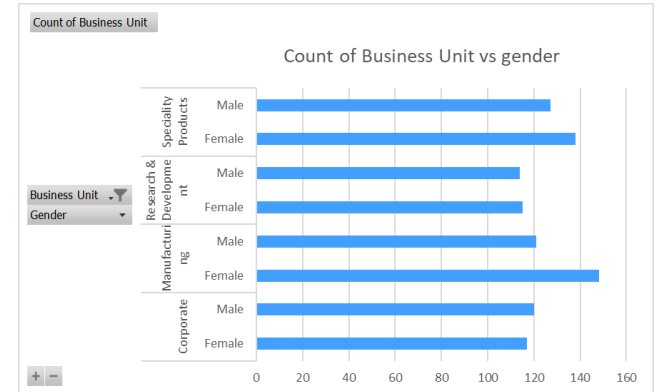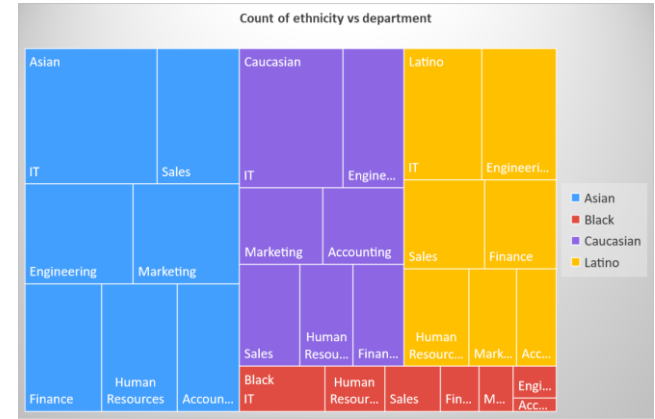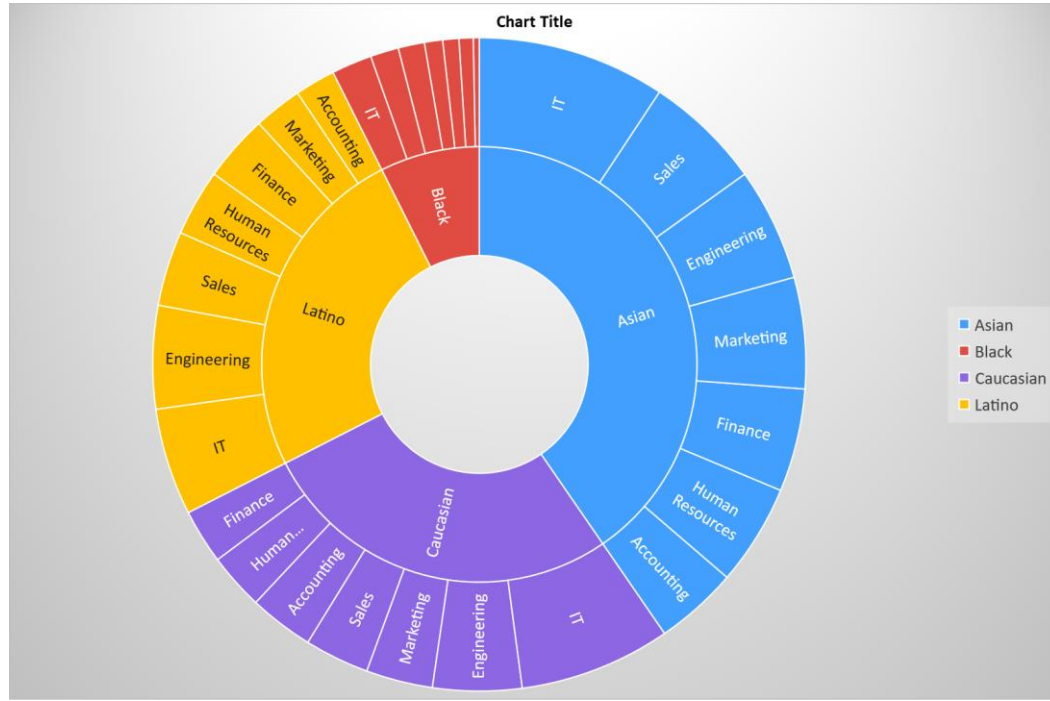b. Pivot Table options
c. Data analysis
d. Conditional formatting

📄 Understanding the Data

Sneak Peak into the Data

|	Full Name	Job Title	Department	Business Unit	Gender	Ethnicity	Age	Hire Date	Annual Salary	Bonus %	Country	City	Exit Date
E02387	Emily Davis	Sr. Manger	IT	Research & De	Female	Black	55	8/4/2016	$141,604	15%	United States	Seattle	16/10/2021
E04105	Theodore Din	Technical Arch	IT	Manufacturing	Male	Asian	59	29/11/1997	$99,975	0%	China	Chongqing	
E02572	Luna Sanders	Director	Finance	Speciality Pro	Female	Caucasian	50	26/10/2006	$163,099	20%	United States	Chicago	
E02832	Penelope Jord	Computer Sys	IT	Manufacturing	Female	Caucasian	26	27/9/2019	$84,913	7%	United States	Chicago	
E01639	Austin Vo	Sr. Analyst	Finance	Manufacturing	Male	Asian	55	20/11/1995	$95,409	0%	United States	Phoenix	
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E01550	Ruby Barnes	Manager	IT	Corporate	Female	Caucasian	27	1/7/2020	$119,746	10%	United States	Phoenix	
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E04116	David Barnes	Director	IT	Corporate	Male	Caucasian	64	3/11/2013	$186,503	24%	United States	Columbus	
E04625	Adam Dang	Director	Sales	Research & De	Male	Asian	45	9/7/2002	$166,331	18%	China	Chongqing	

What Are You Going to Build?

Poll Time

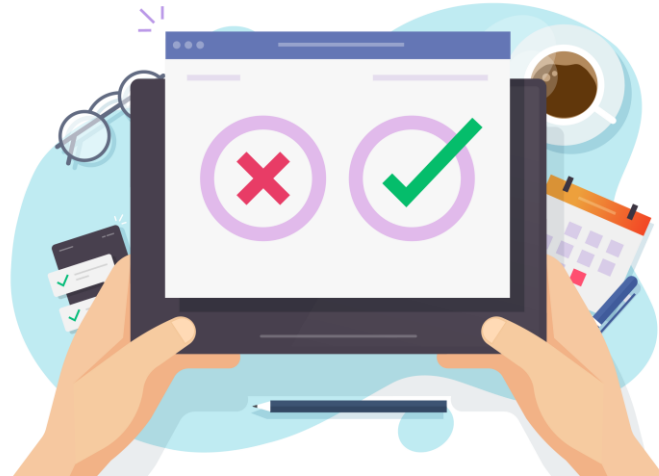Q. Which chart type in Excel is best suited for comparing values across different categories?

a. Pie chart

b. Line chart

c. Bar chart

d. Scatter plot

Poll Time

Q. Which chart type in Excel is best suited for comparing values across different categories?

a.   Pie chart

b.   Line chart

c.   Bar chart
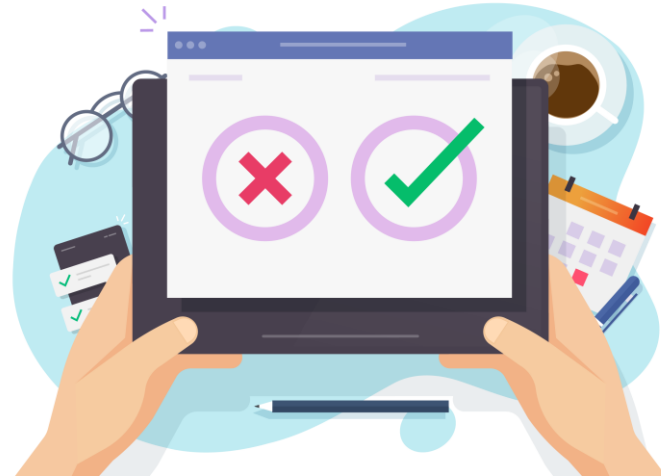
d.   Scatter plot

Q&A
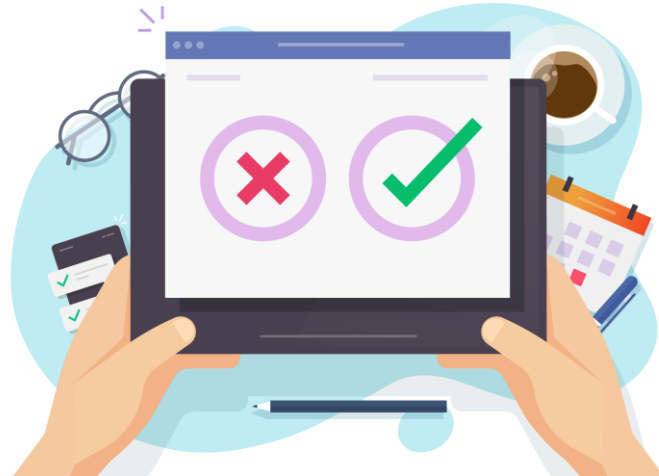
📄 Hands-on: Case Study Questions

Poll Time

Q. Which menu option in Excel is used to access various formatting options such as font, borders, and alignment?

a. Insert

b. Home

c. View

d. Format

Poll Time

Q. Which menu option in Excel is used to access various formatting options such as font, borders, and alignment?

a. Insert

b. Home

c. View

d. Format

Q&A

Summary

- ✓ You've solved a case study pertaining to the HR database.

- ✓ You've analyzed the data to answer a questions around the salary, bonuses and work culture of the company.

- ✓ You made use of different plots such as bar chart, pie chart, area chart etc. to present your analysis.

Activity 1

Pre-requisites:

- MS Excel

- HR_Employee_Data.xlsx

Scenario:

You have been given an Excel file containing information for all the employees working in an organization.

Create the below-mentioned pivot tables using the above dataset.

- Calculate the average Annual Salaries for various experience levels.

- Compare the average bonus for genders in each department.

- Calculate the number of people who've left each department.

Activity 2

Pre-requisites:

- MS Excel

- HR_Employee_Data.xlsx

Scenario:

You have been given an Excel file containing information for all the employees working in an organization.

Using the pivots created in the previous activity, create the below -mentioned charts.

- Create a line chart to visualize the trend in average salaries with experience.

- Create a stacked bar chart to compare the average bonus.

- Create a pie chart to show number of people who've left each department.

Next Session:
Excel Case Study - II

THANK YOU

Please complete your assessments and review the self-learning content
for this session on the **PRISM** portal.

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Excel Case Study - II

📄 Pre-requisites

Hope you have gone through the self-learning content for this session on the PRISM portal.

By the End of This Session, You Will:

- Analyze a case study pertaining to the HR department of an organization.

- Interpret and respond to vital questions about the case study on the company's policies for their employees.

- Apply the concepts you've learned in the previous sessions to construct structured responses to these questions.

What Have You Learned So Far?

- You took a problem statement pertaining to the HR data.

- Studied the distribution of employees across teams.

- Understood the cultural diversity in the organization.

- Studied the biases within the organization in terms of salary and bonuses.

- Studied the age distribution of employees across teams.

- Studied the salary and bonuses paid over the years.

Poll Time

Q. In a stacked bar chart, what does the length of each segment within a bar represent?

a. Total value of the bar

b. Relative proportion of each category within the bar

c. Average value of the bar

d. Maximum value within the bar

Poll Time

Q. In a stacked bar chart, what does the length of each segment within a bar represent?

a. Total value of the bar

b. **Relative proportion of each category within the bar**

c. Average value of the bar

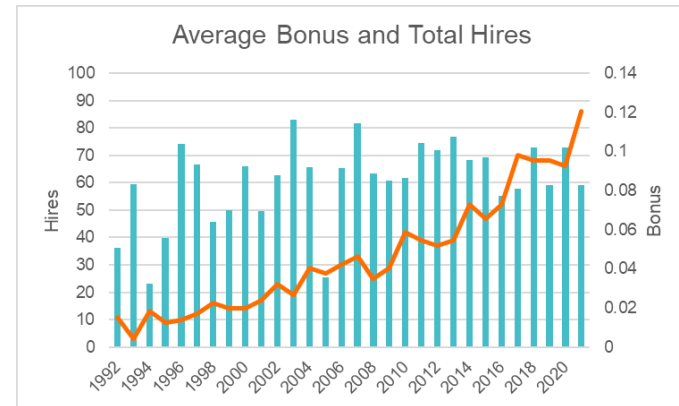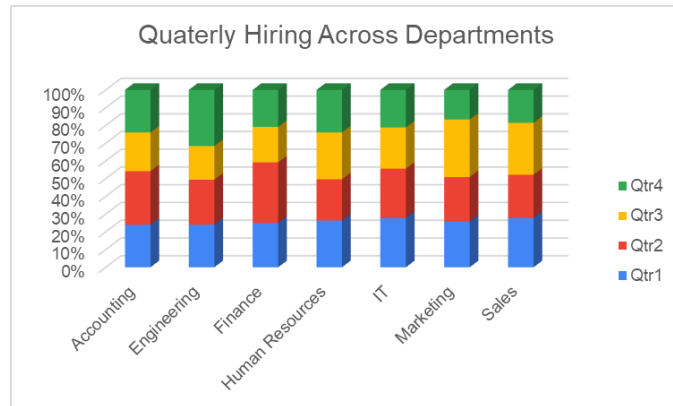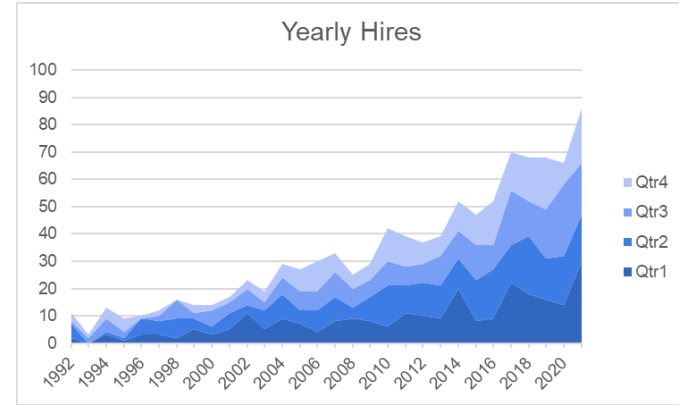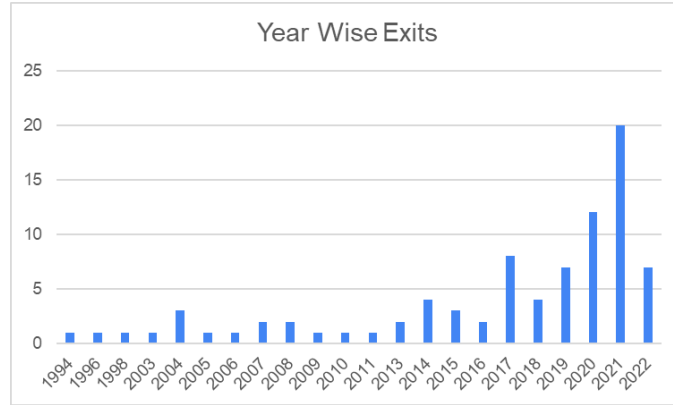d. Maximum value within the bar

📄 Case Study – Problem Statement

Recap

Ammy is an HR professional who wants your help in analyzing the data containing information about different aspects of human resources in her company. She wants you to analyze 3 main aspects of the company.

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Poll Time

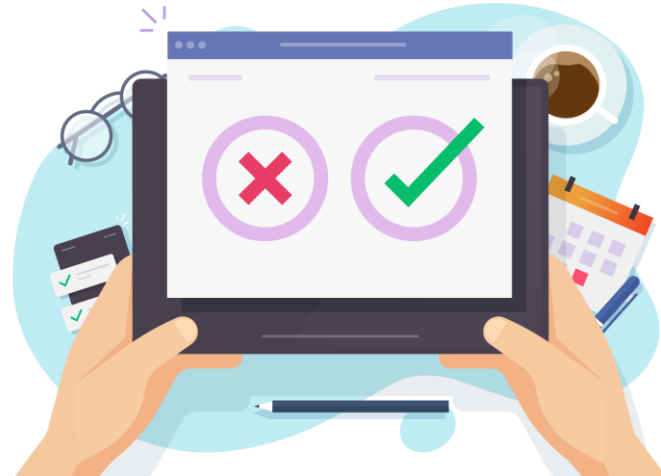Q. In Excel, which chart element provides a title or description for the overall chart?

a. Data labels

b. Legend

c. Axis labels
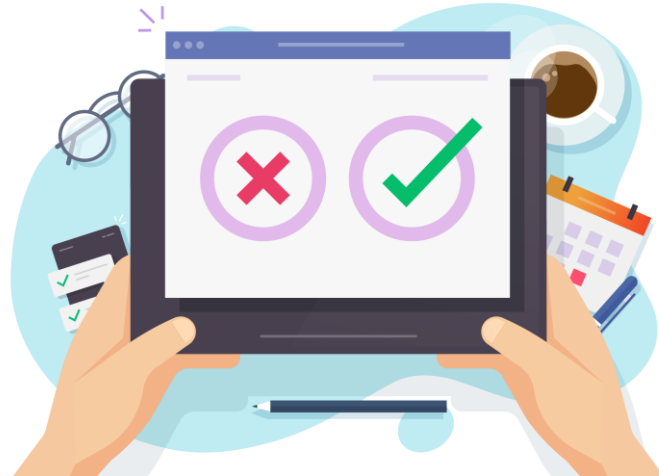
d. Chart title

Poll Time

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📄 Hands-on: Case Study Questions

Poll Time

Q. In Excel, what is the purpose of a dual-axis chart?

a. To compare multiple data series on the same axis

b. To display data points in a scatter plot format

c. To plot two different chart types on the same chart

d. To represent data using two different scales on separate axes

Poll Time

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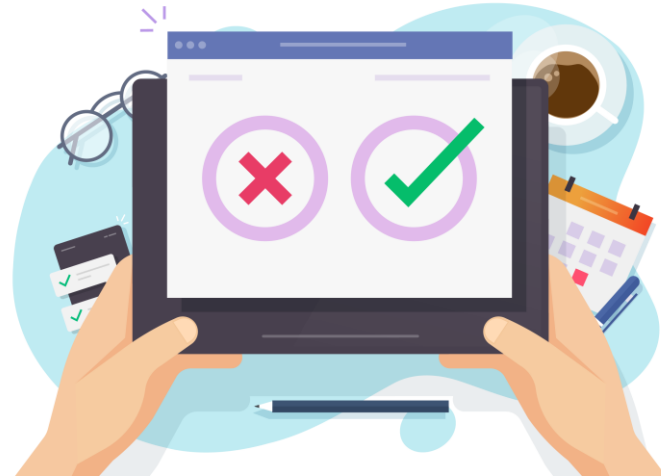
📄 How Do Things Work in the Real World?

How Would You Go About With This Twist?

Poll Time

Q. In Excel, you can customize the color scheme of a chart using Chart Styles.

a. True

b. False

Poll Time

Q. In Excel, you can customize the color scheme of a chart using Chart Styles.

a. True

b. False

Summary

- Delved into an analysis of the organization's hiring trends, understanding their evolution over time.

- Engaged in a comparison of hiring rates, casting our view across various departments and examining diversity through ethnic group hiring patterns.

- Focused on the attrition rates, assessing the changes and patterns visible over the years.

- Completed the investigation with a look at employment duration across departments, providing you with a picture of job stability within the organization.

Activity 1

Pre-requisites:

- MS Excel
- HR_Employee_Data.xlsx

Scenario:

You have been given an Excel file containing information of all the employees working in an organization.

Create the below-mentioned pivot tables using the above dataset.

- Calculate the total employees hired each year across all departments.
- Compare the average salary of male and female employees over the last 10 years.
- Calculate the average days of employment for each country.

Activity 2

Pre-requisites:

- MS Excel

- HR_Employee_Data.xlsx

Scenario:

You have been given an Excel file containing information of all the employees working in an organization.

Using the pivots created in the previous activity, create the below -mentioned charts.

- Create a stacked area chart to visualize the trend in hiring numbers.

- Create a stacked bar chart to compare the male and female employees' salaries over the years.

- Create a bar chart to visualize the average days of employment for all the countries.

Session Feedback

Next Session:
Introduction to SQL and MySQL

THANK YOU

Please complete your assessments and review the self-learning content
for this session on the **PRISM** portal.

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