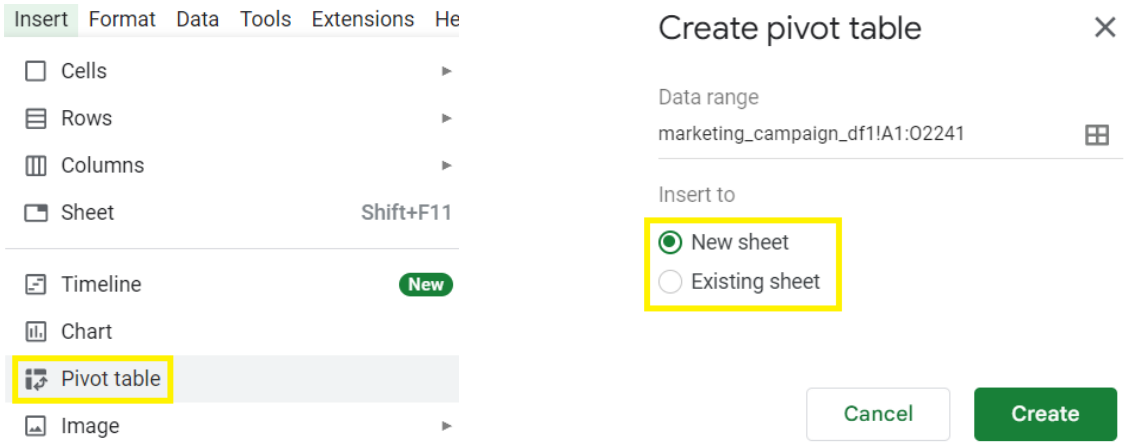
Univariate Analysis

Pivot Table

A pivot table is an interactive and helpful way to quickly summarise a large amount of data to better understand the information. It helps you pick out the important information from a big set of data, and lets you change the way the data is organized. For example, you can turn rows into columns and columns into rows.

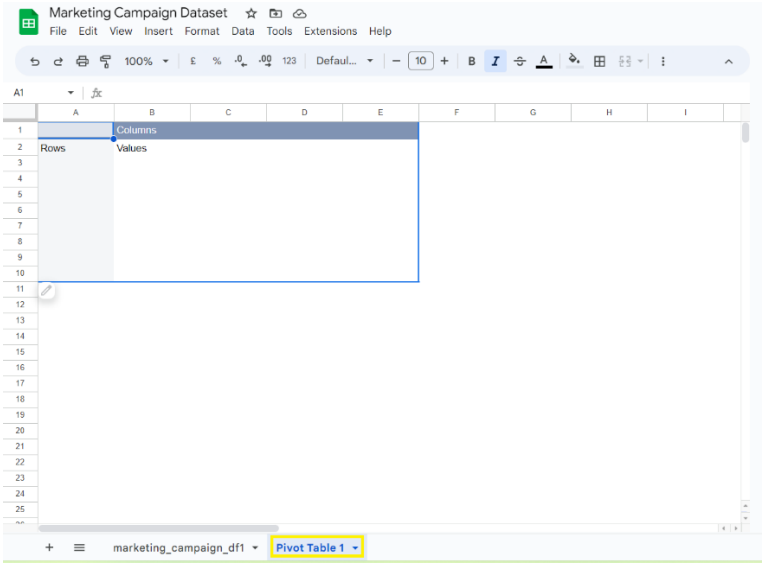
Insert Pivot Table in Google Spreadsheets

1. Click on any cell in your dataset.
2. Insert and click on the pivot table (Insert > Pivot Table).



3. The system will automatically choose the entire data range in your spreadsheet and prompt you to specify the location for the table insertion. You have two options to choose from:
    - Creating a new sheet to insert the table into.
    - Inserting the table into an already existing sheet.

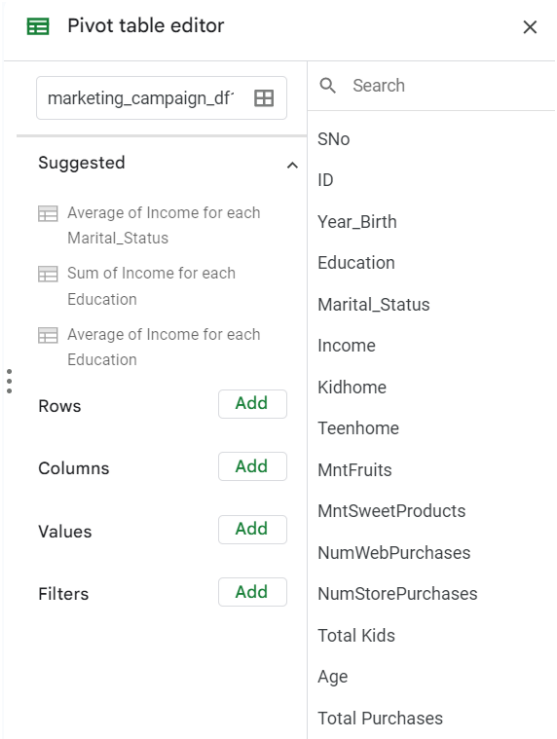
4. Select “New Sheet” and click create. Your pivot table will be created.



Now under the rows and columns, you can add any categorical feature on which you want to perform our Data Analysis.

Pivot Table Editor

To access the Pivot Table editor, you can click on the highlighted area located under the "Rows" column.



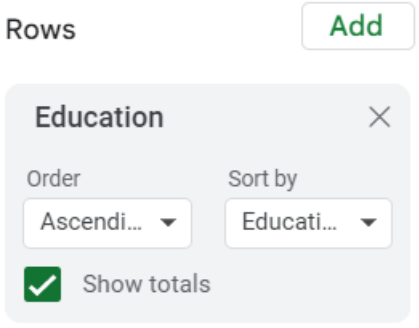
In the Pivot Table editor, you can choose elements to include in your table, such as Rows and Columns, and assign corresponding Values for analysis. Additionally, you can apply Filters to the table to gain deeper insights and extract specific information.

Activity

You are tasked with analyzing the number of sweet products based on the Education of various customers.

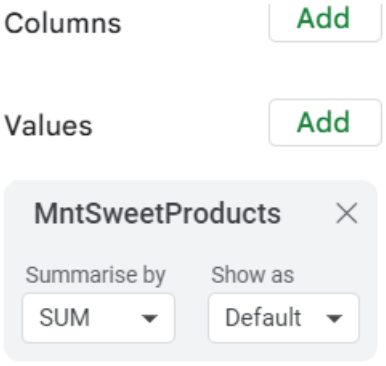
Now you know that 'Education' is a Categorical feature, that will take help of Pivot table.

1. Perform the first 4 steps as mentioned to insert a pivot table.
2. As you intend to conduct an analysis focusing on the Education feature, you should include Education in the **Row** option within the Pivot Table Editor section. After selecting Education, this will be the result.



	A	B
1	*Education*	
2	2n Cycle	
3	Basic	
4	Graduation	
5	Master	
6	PhD	
7	**Grand Total**	

3. If you wish to examine the quantity of sweet products, you should include MntSweetProducts in the **Values**. Once MntSweetProducts is added, the resulting output will be as follows:



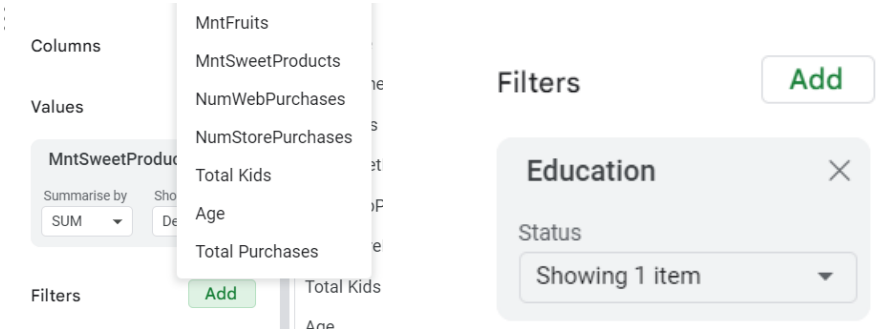
	A	B
1	*Education*	SUM of MntSwe
2	2n Cycle	6953
3	Basic	654
4	Graduation	35351
5	Master	7835
6	PhD	9828
7	**Grand Total**	**60621**

This is the sum of amount of sweet products bought by individuals of various educational qualifications.

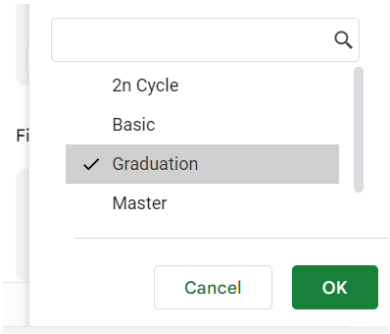
4. You can also summarize the result by various other functions (like average, count, max, min etc) by exploring various options in "Summarise by", depending on requirements of analysis.

Filter

To conduct a detailed analysis of individuals who possess a graduation qualification exclusively, you may apply a filter to obtain specific results.
To do so, you can simply click on "Add filter" within the pivot table editor.



After this give the filter value you want. Here “Graduation” is selected. The final output on the spreadsheet will be:



	A	B
1	*Education*	SUM of MntSwe
2	Graduation	35351
3	**Grand Total**	**35351**
4		
5		

Now it is your turn to try all these operations in your own spreadsheets. Happy learning!