

2 A: Perform the Extraction Transformation and Loading (ETL) process to construct the database in the Power BI

Consider the example of the table:

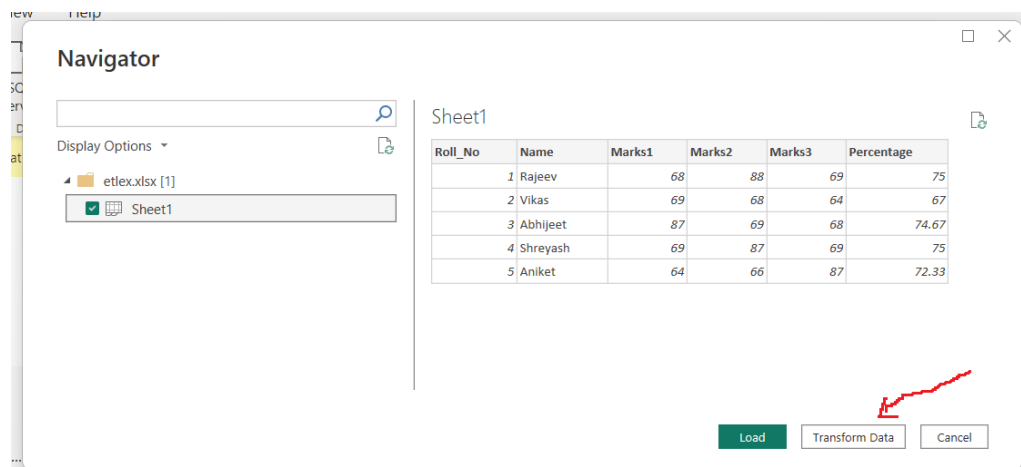
Roll_No	Name	Marks1	Marks2	Marks3	Percentage
1	Rajeev	68	88	69	75.00
2	Vikas	69	68	64	67.00
3	Abhijeet	87	69	68	74.67
4	Shreyash	69	87	69	75.00
5	Aniket	64	66	87	72.33

Import this excel data in Power BI and apply the following transformations

- (a) Name should be converted in all capital letters
- (b) Add new field named "Total Marks"
- (c) Convert all datatypes in varchar

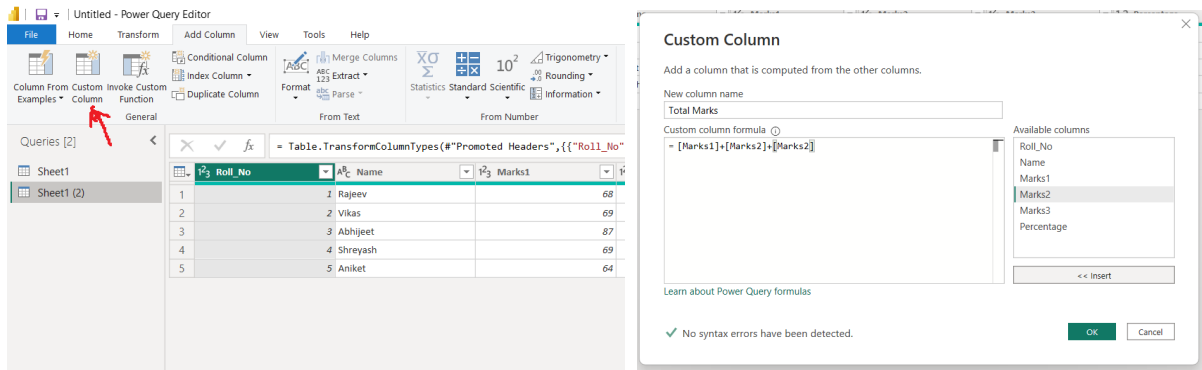
Solution(steps):

1. Open Power BI Desktop and select "Get Data" from the Home tab. Select "Excel workbook" as the data source, choose the Excel file and click on "Open". Preview the data, ensure it's correct and then click on "Load" to import the data.



(Note: After importing your data into Power BI, click on the "Transform Data" button in the lower-right corner of the "Navigator" window. This will open the Power Query Editor window where you can perform various transformations on your data.)

- To convert all names to uppercase, we need to select the "Name" column in the Power Query Editor window. Then, we need to click on "Transform" in the ribbon and select "UPPERCASE" from the list of text transformations.
- To calculate the total marks, we need to click on "Add Column" in the ribbon and select "Custom Column". In the formula bar, we need to enter the formula " $= [Marks1] + [Marks2] + [Marks3]$ ".



- To convert all data types to varchar, we need to select all columns except "Total Marks" in the Power Query Editor window. Then, we need to click on "Transform" in the ribbon and select "Data Type". Finally, we need to choose "Text" from the list of data types.

	Roll_No	Name	Marks1	Marks2	Marks3	Percentage	Total_Marks
1	1	Rajeev	68	88	69	75	244
2	2	Vikas	69	68	64	67	205
3	3	Abhijeet	87	69	68	74.67	225
4	4	Shreyash	69	87	69	75	243
5	5	Aniket	64	66	87	72.33	196

- Once we have performed all the required transformations, we can click on "Close & Apply" in the Power Query Editor window to apply the transformations and load the data into Power BI.
- To rename the "Total_Marks" column in the Fields pane, we need to locate the column and click on the drop-down arrow next to its name. Then, we can choose "Rename" from the context menu and enter the new name "Total Marks (Auto)".

In Microsoft Excel and create the Pivot table and Pivot Chart