Takaisin välilehdelle

Tehty: Käy oppitunti läpi loppuun asti

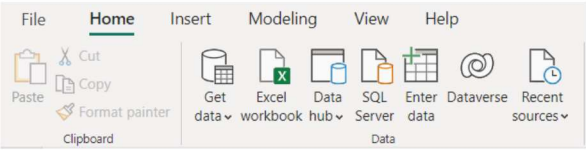
# Tasks

You will now get hands-on with applying several basic transforms inside the **Power Query Editor.** The goal of these first sets of examples is to get you comfortable with the ***Power Query Editor*** user interface before the more complex use cases are covered.

## Task 1 - Use First Row as Headers

**Step 1**: Click link to download the file called **Failed Bank List.xlsx**, and save it to **C:\PBExams.**

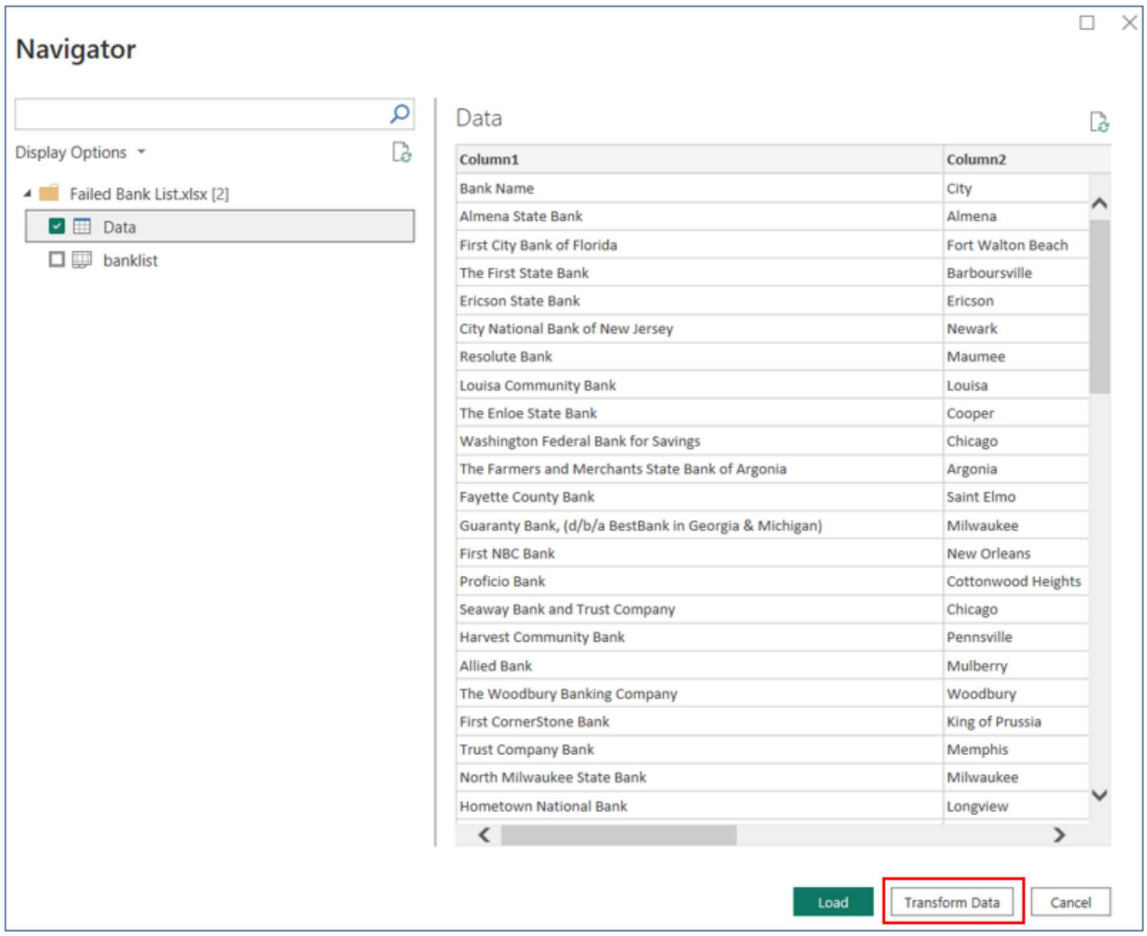
**Step 2**: Launch **Power BI Desktop**, and select **Excel workbook** on the **Home** ribbon.




**Step 3**: Select the **Failed Bank List.xlsx** file that is available in **C:\PBExams,** and click **Open.**

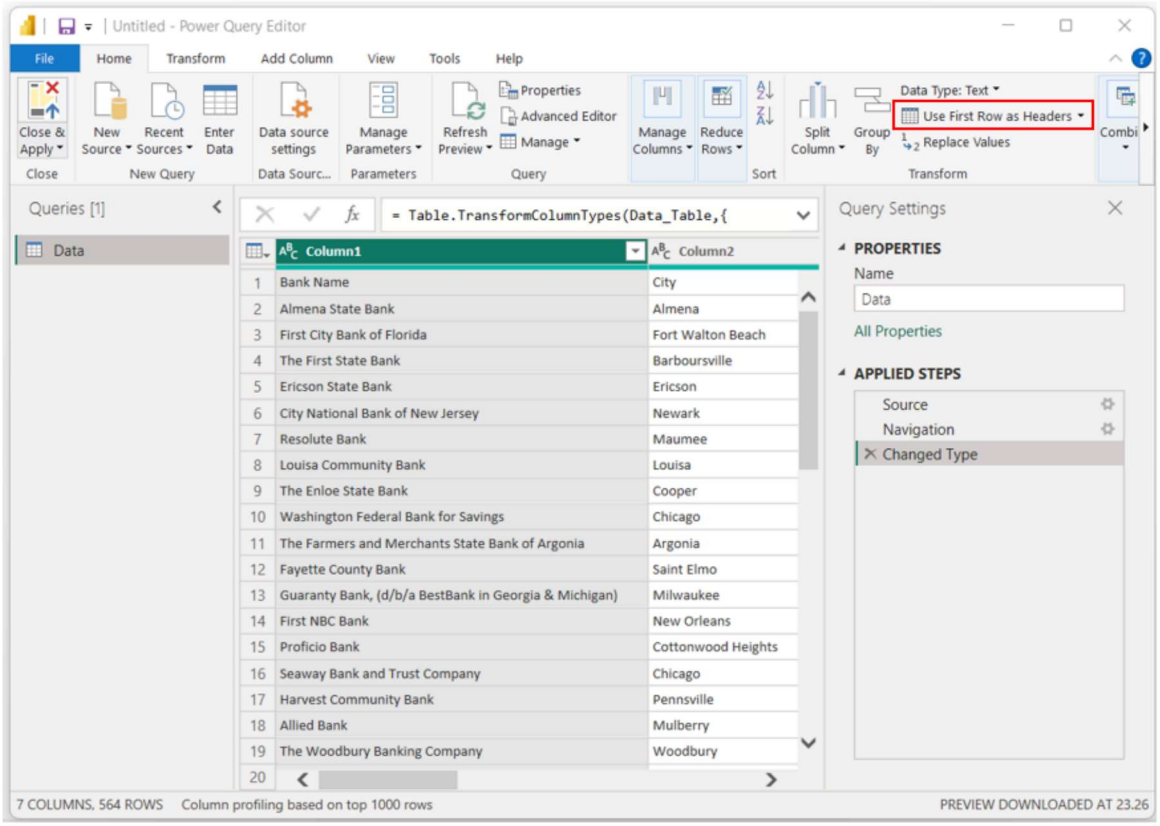
**Step 4**: In the **Navigator** window, select the table called **Data**, then choose **Transform Data**.

When the ***Power Query Editor*** launches, you should notice that the column headers are not automatically imported. In fact, the column headers are in the first row of the data.




| Column1 | Column2 |
|---|---|
| Bank Name | City |
| Almena State Bank | Almena |
| First City Bank of Florida | Fort Walton Beach |
| The First State Bank | Barboursville |
| Ericson State Bank | Ericson |
| City National Bank of New Jersey | Newark |
| Resolute Bank | Maumee |
| Louisa Community Bank | Louisa |
| The Enloe State Bank | Cooper |
| Washington Federal Bank for Savings | Chicago |
| The Farmers and Merchants State Bank of Argonia | Argonia |
| Fayette County Bank | Saint Elmo |
| Guaranty Bank, (d/b/a BestBank in Georgia & Michigan) | Milwaukee |
| First NBC Bank | New Orleans |
| Proficio Bank | Cottonwood Heights |
| Seaway Bank and Trust Company | Chicago |
| Harvest Community Bank | Pennsville |
| Allied Bank | Mulberry |
| The Woodbury Banking Company | Woodbury |
| First CornerStone Bank | King of Prussia |
| Trust Company Bank | Memphis |
| North Milwaukee State Bank | Milwaukee |
| Hometown National Bank | Longview |

**Step 5**: To push the column names that are in the first row of data to the header section, select the transform called **Use First Row as Headers** from the **Home** ribbon as shown in figure below.




| | Column1 | Column2 |
|---|---|---|
| 1 | Bank Name | City |
| 2 | Almena State Bank | Almena |
| 3 | First City Bank of Florida | Fort Walton Beach |
| 4 | The First State Bank | Barboursville |
| 5 | Ericson State Bank | Ericson |
| 6 | City National Bank of New Jersey | Newark |
| 7 | Resolute Bank | Maumee |
| 8 | Louisa Community Bank | Louisa |
| 9 | The Enloe State Bank | Cooper |
| 10 | Washington Federal Bank for Savings | Chicago |
| 11 | The Farmers and Merchants State Bank of Argonia | Argonia |
| 12 | Fayette County Bank | Saint Elmo |
| 13 | Guaranty Bank, (d/b/a BestBank in Georgia & Michigan) | Milwaukee |
| 14 | First NBC Bank | New Orleans |
| 15 | Proficio Bank | Cottonwood Heights |
| 16 | Seaway Bank and Trust Company | Chicago |
| 17 | Harvest Community Bank | Pennsville |
| 18 | Allied Bank | Mulberry |
| 19 | The Woodbury Banking Company | Woodbury |
| 20 | | |

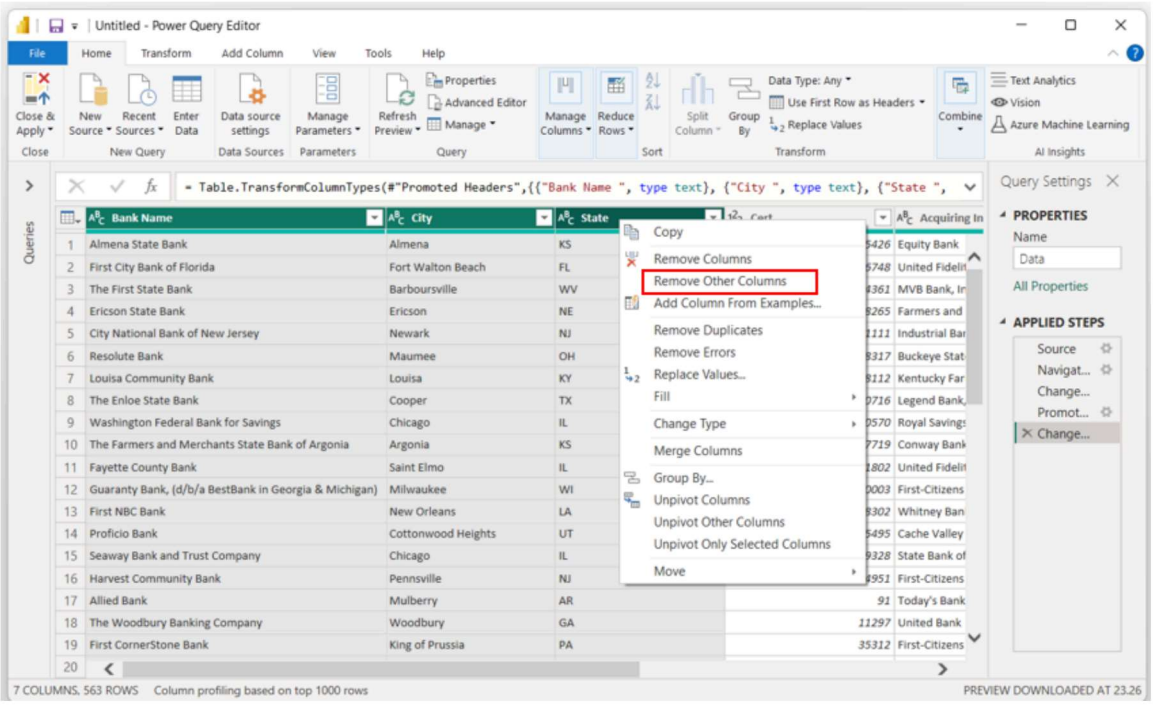
Once complete, you will see the first row of the dataset has been promoted to the column header area. This is a very common transform that you can expect to use often with flat files.

## Task 2 - Remove Columns

There are several different methods for removing columns in the **Power Query Editor**. This example will show one of these methods using the same dataset from the previous task.

**Step 1**: Multi-select (*Ctrl* + click) the column headers of the columns you wish to keep as part of your solution. In this scenario, select the columns **Bank Name**, **City**, **State**, and **Closing Date**.

**Step 2**: With these four columns selected, right-click on any of the selected columns headers and choose **Remove Other Columns**, as shown in Figure.



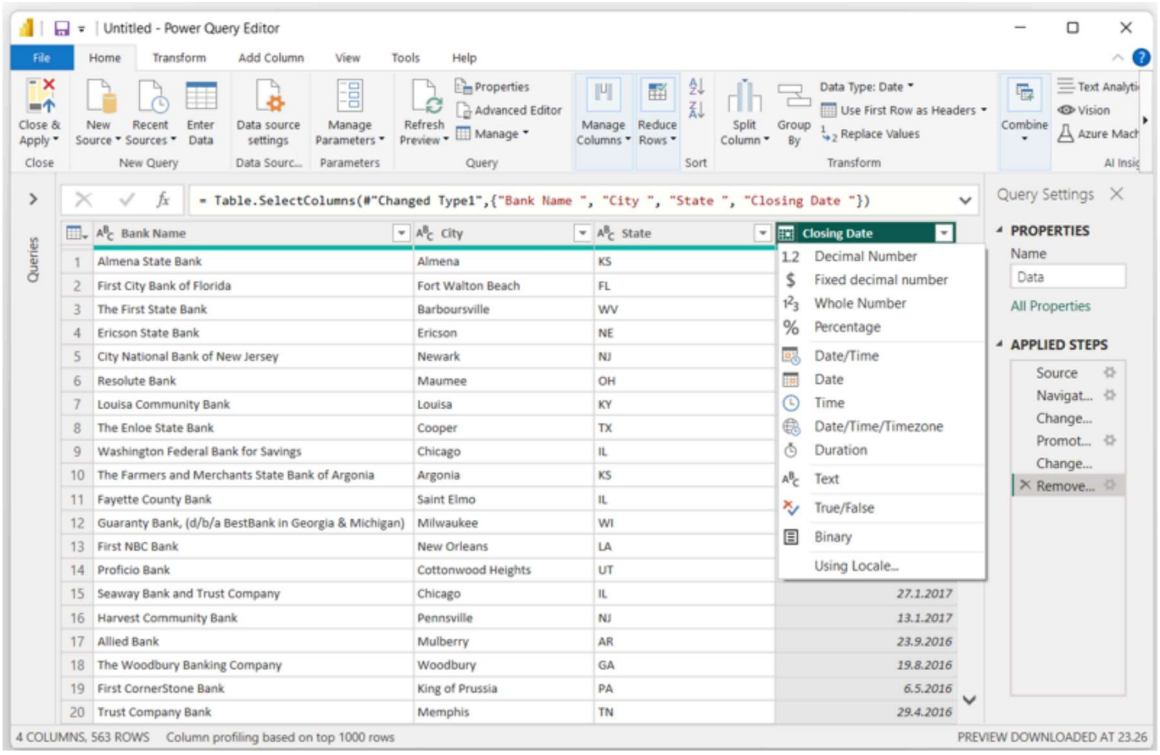

Once this transform is completed, you should be left with only the columns you need.

## Task 3 - Change Type

Defining column data types properly early on in your data scrubbing process can help to ensure proper business rules can be applied and data is presented properly in reports. The **Power Query Editor** has various numeric, text, and date-time data types for you to choose from. In our current example, all of the data types were automatically interpreted correctly by the **Power Query Editor**, but let's look at where you could change this if necessary:

**Step 1**: Locate the data type indicator on the column header to the left of the column name.

**Step 2**: Click the data type icon, and a menu will open that allows you to choose whichever data type you desire, as shown in figure below.




You will not need to make a change to the data type for this example but now you know where to go when you are required to.

### Another method:

You can change column data types by right-clicking on the column you wish to change, selecting **Change Type,** and choosing the new data type. You should always be careful when changing data types to ensure your data supports the change.

For instance, if you change a column data type to **Whole Number** while it has letters stored in it, **Power BI** will produce an error.

If you want to change multiple column data types at once, you can multi-select the necessary columns, then select the new data type from the **Data Type** property on the **Home** ribbon.

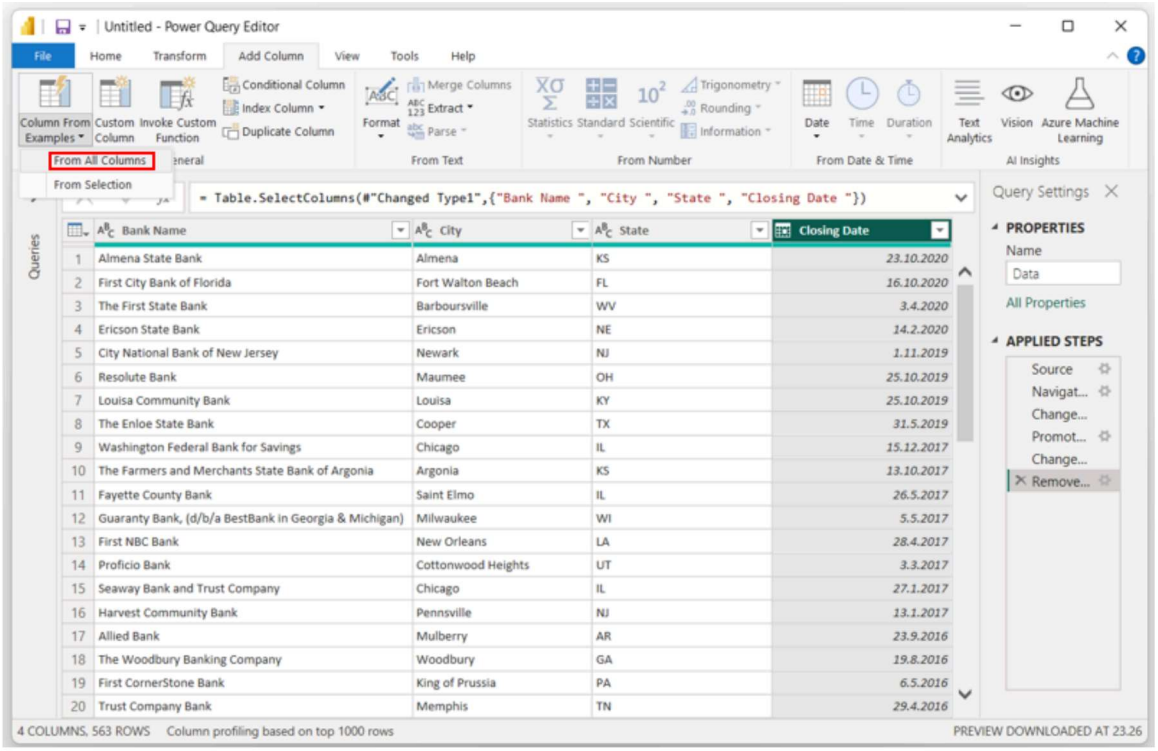
Many of the transforms you will encounter in the future are contextually based on the column data types you are working with. For example, if you have a column that is a date, then you will be provided with special transforms that can only be executed against a date data type, such as extracting the month name from a date column.

## Task 4 - Add Column From Examples

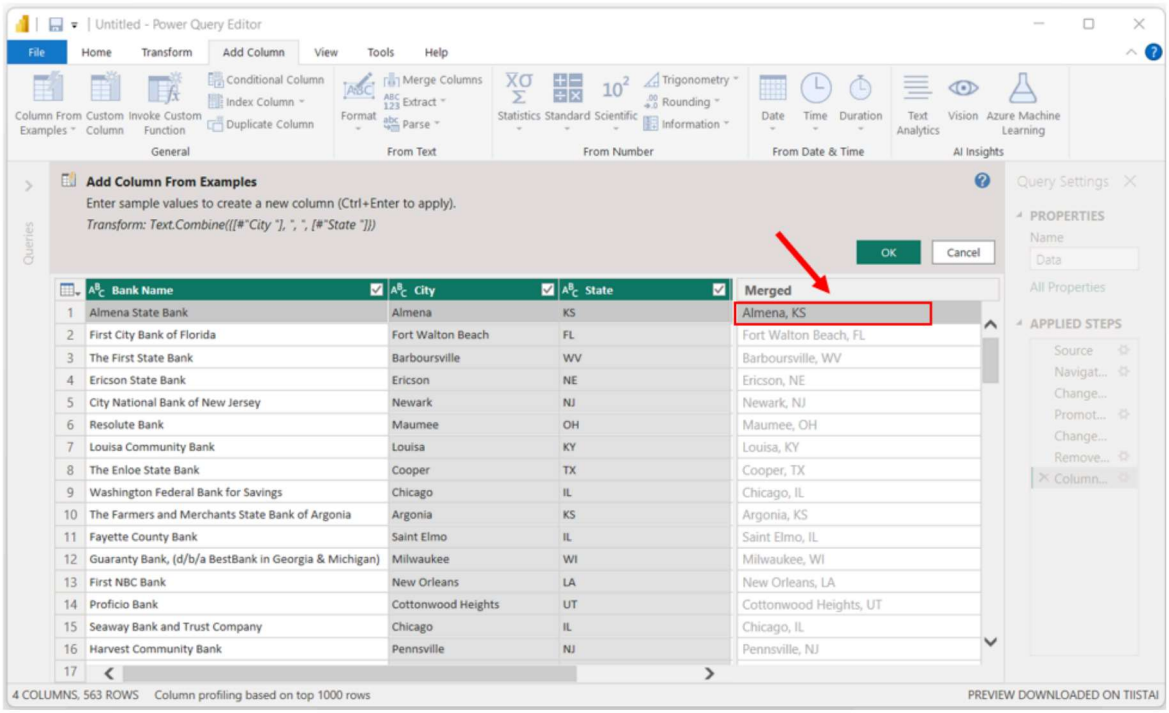
One option that can make complex data transformations seem simple is the feature called **Add Column From Examples.** Using **Add Column From Examples**, you can provide the **Power Query Editor** with a sample of what you would like your data to look like, and it can then automatically determine which transforms are required to accomplish your goal. Continuing with the same failed banks example, let's walk through a simple example of how to use this feature:

**Step 1**: Find and select the **Add Column** tab in the **Power Query Editor** ribbon.

**Step 2**: Select the **Column From Examples** button and, if prompted, choose **From All Columns**. This will launch a new **Add Column From Examples** interface.




Our goal is to leverage this feature to combine the **City** and **State** columns. In the first empty cell, type **Almena, KS** and then hit **Enter**. In Figure you will notice that the text you typed has automatically been translated into an **M** query and applied to every row in the dataset.




Once you click **OK**, the transform is finalized and automatically added to the overall **M** query that has been built through the user interface. The newly merged column will be added with the rest of your columns and you can optionally rename the column to something more appropriate by double-clicking on the column header.

As you can see, the **Add Column From Examples** feature is great because you don't have to be an expert in which transforms are appropriate because *Power BI* will automatically choose them for you!

Sometimes, you may encounter scenarios where the **Add Column From Examples** feature needs more than one example to properly translate your example into an **M** query function that accomplishes your goal. If this happens, simply provide additional examples of how you would like the data to appear in different rows, and the **Power Query Editor** should adjust to account for outliers.

**End-of-Exercise**

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◄ Data Transformation Strategies

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Exercise 4 - Advanced transformation options ►