

## Transforming Data Lab

### PART 1: Transform before load

- Open the csv file `DimCustomer.csv` from `Datasets/WWI` folder on the desktop.

<https://github.com/fenago/cts245X/tree/main/CTS2451IntroToPowerBI/WWI>

Select and Transform Data button to navigate to Power Query as shown in navigation sheet below

- Remove the first row. It contains mostly blanks and does not provide any information.
- Make the resulting first row the header row.
- Delete the columns `Valid From` and `Valid To`.
- Close and apply.

In the *Fields* pane, select the *Edit Query* menu option from `DimCustomer`.

In Power Query Editor window that has opened, how many steps are listed in the "Applied Steps" section?

### PART 2: Field aggregation

- Click "Close & Apply" to close Power Query in case it is still open.
- Check that Power BI recognized a relationship between `FactSale` and `DimCustomer`.
- Add a new page tab in the *Report* view.

Make a Clustered Column Chart using `Buying Group` from `DimCustomer` and `Total Including Tax` from `FactSale`.

Change it so that the value is the **minimum** of  
`Total Including Tax` .

According to total including tax, how much was the  
cheapest sale made to Tailspin Toys (answer format: 1.1)?

### PART 3: Transforming columns

- Make sure no bars are selected on the bar graph.
- Create a Card visualization with the value  
`Credit Limit` from `DimCustomer` .

The card should show `?` -, which is unexpected! Edit the  
query of `DimCustomer` to open up the Power Query Editor  
and fix the `Credit Limit` column.

- Replace values so that `?` s are replaced with blanks  
in `Credit Limit` .
- Repeat so that `-` s are replaced with blanks for the  
`Credit Limit` column.

Change the data type of `Credit Limit` from *Text* to  
*Decimal Number*.

Close and apply and return to the *Report* view. In the card,  
change the value to be the **average** `Credit Limit` .

What is the average credit card limit of a Wide World  
Importers customer (answer format: \$11.11K)?

### PART 4: Formatting currency

- In the *Data* view of `FactSale` , select the `Total Including Tax` column.
- Using *Column tools*, change the format to *Currency*.

Change the number of decimal places shown to 2 instead of *Auto*.

- Change the default aggregation from *Sum* to *Average* .
- Repeat the same format and decimal place changes to the `Profit` column.
- Add a card to your report and select `Total Including Tax` .
- If applicable, clear any selections on the `Employee` slicer so that all employees are considered.

What does the "Total Including Tax" card now display?  
(answer format: \$111.11)

## PART 5: Making maps with geographic data

- Load the dimension table `DimCity.csv` from the `Datasets/WWI` folder on the Desktop.
- Go to the *Model* view and make sure a relationship is found between `DimCity` and `FactSale` .

In the *Data* view, change the *Data category* of `DimCity` 's `State Province` to "State or Province".

Make sure the default summarization for `Profit` from `FactSale` is "Average".

- In the *Report* view, navigate to the second tab.
- Create a *Map* visualization using `State Province` as *Location* and `Profit` as *Bubble size*.

Add a *Slicer* for the `Buying Group` field from the `DimCustomer` table. Arrange the report to your liking and add a title.

**Using the map and the slicer, which state generates the highest average profit for the "Wingtip Toys"?**

- ☐ Washington
- ☐ Oregon
- ☐ Alaska
- ☐ California