

WorkShop2

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Instructions:

- The workshop can be completed in **group of four (recommended)**.
- All members should work together to complete the workshop and they will receive the same mark.
- This workshop is worth 2.5% of the total course grade and will be evaluated through your written submission.
- Please submit the submission file(s) through Blackboard.
- **Only one person must submit for the group and only the last submission will be marked.**

Part One: Tableau tutorial videos

Step1. Watch the “Getting Started” tutorial videos

(<https://www.tableau.com/learn/training#getting-started>):

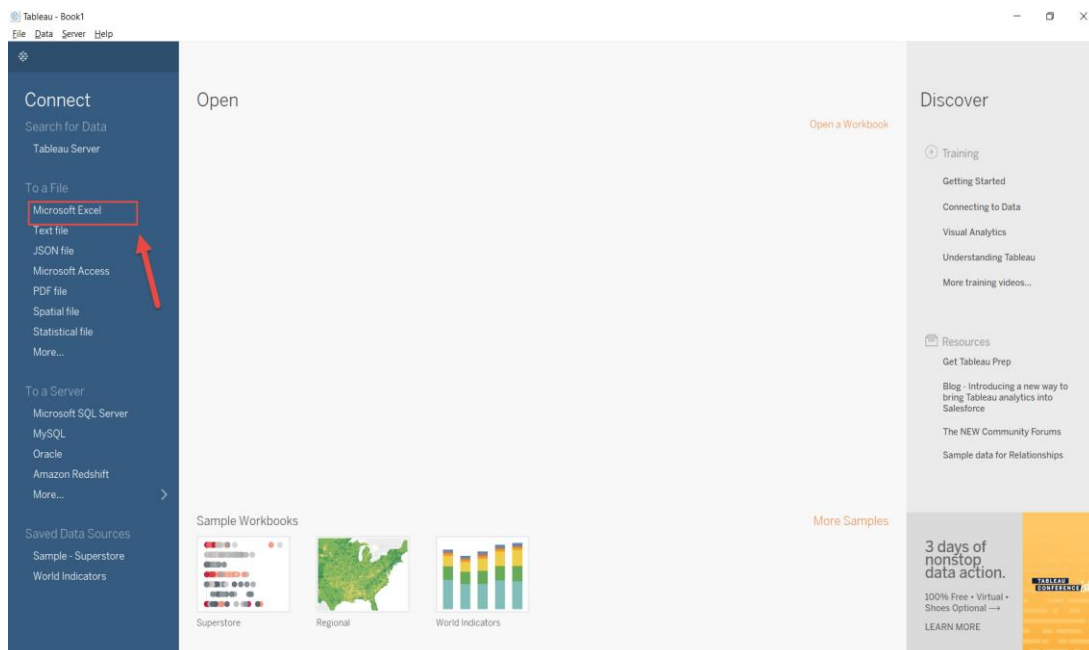
- Getting Started (25 min).
- The Tableau Interface (4 min)
- Distributing and Publishing (4 min)

Part Two: Connecting to data

Step1. Download the raw dataset from blackboard the file name is

“**GlobalSuperstore.xls**”

Step2. Open Tableau Desktop. The Connect to Data screen appears.



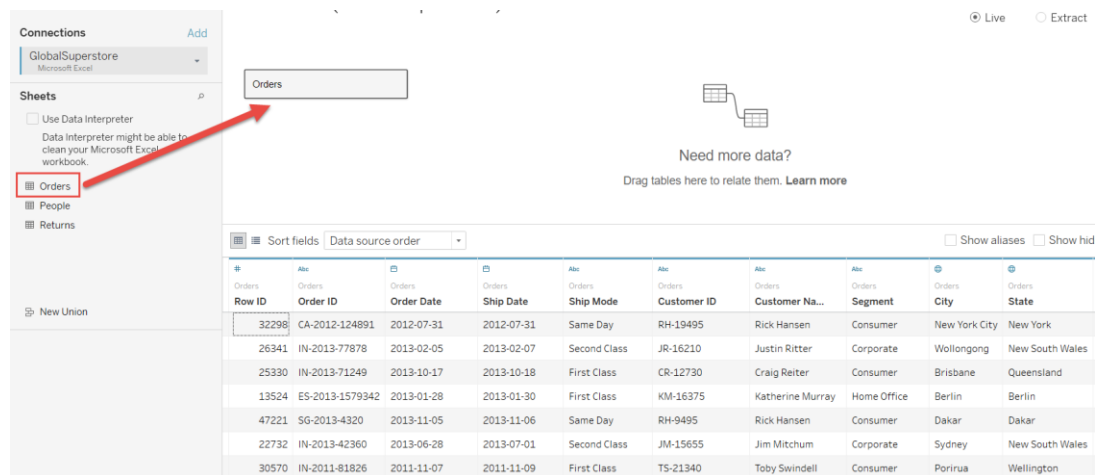
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Step3. Choose Connect > To a File > Microsoft Excel and open the “GlobalSuperstore.xls” file. The Data Connections screen appears.

Note:

- **Connections.** You can *add* additional data resources.
- **Sheets.** Displays the worksheets in the excel file, which are treated as tables in a database.

Step4. Drag and drop “Orders” onto the middle section, where it says, “Drag tables here” (or double click Orders). The data should appear in the preview pane.



As a recap: After you connect to your data, Tableau does the following:

- Opens a new worksheet. This is a blank slate where you create your first view.
- Automatically assigns data types (such as date, number, string, etc.) and roles (dimension or measure) to your data.
- Adds columns from your data source to the Data pane on the left-hand side. Columns are added as fields.

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Question 1. Click on # in the header of the first column. What is the data type for RowID?

The data type for RowID is Number (Whole).

Question 2. Now click on the 'Abc' above Order ID column. What is the data type for this column?

The data type for Order ID is string

Question 3. Click on the sorting symbol for RowID to sort in ascending or descending order.

What is the lowest RowID in this table?

What is the highest RowID?

Lowest RowID: 220

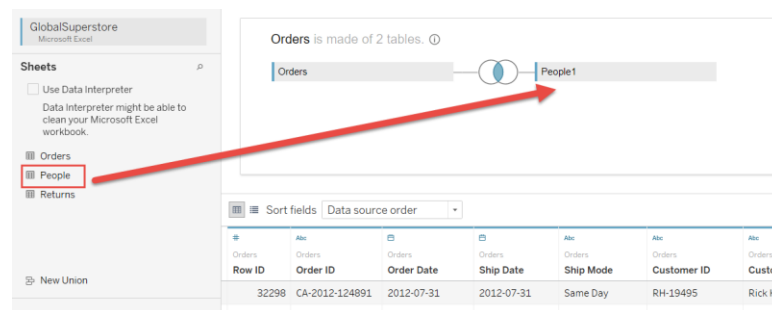
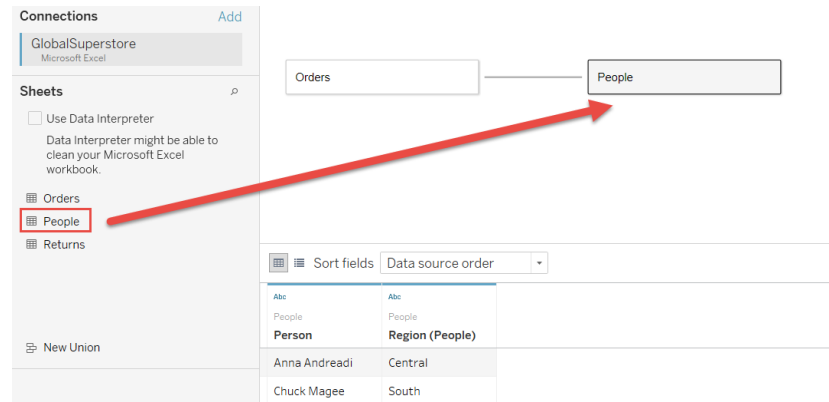
Highest RowID: 50788

Tables

▼	Orders
Abc	Category
⌕	City
⌕	Country
Abc	Customer ID
Abc	Customer Name
Abc	Market
📅	Order Date
Abc	Order ID
Abc	Order Priority
Abc	Person (People1)
⌕	Postal Code
Abc	Product ID
Abc	Product Name
Abc	Region
Abc	Region (People1)
#	Row ID
Abc	Segment
📅	Ship Date
Abc	Ship Mode
⌕	State
Abc	Sub-Category
#	Discount
#	Profit
#	Quantity
#	Sales
#	Shipping Cost
#	Orders (Count)

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Step5. Drag the “People” worksheet onto the middle section as well. **And, accept the default Relationship configuration/parameter.** Then, Double click on the orders table. And, repeat the process by drag and drop the people table to create Join relation. See below figures



Question 4. Right click the joining symbol. Which join type is selected? Inner, Left, Right, or Full join?

The type is inner.

Question 5. The criteria for join is shown as Region = Region (People1). Check to see that for every row in the data preview, the value of Region column (from Orders) is the same as the value of the Region (people) column (from People). **Are they the same? Any exceptions?** (Hint: Choose Sort fields as A to Z descending, so the two Region columns show side by side)

They are same, there is no exceptions.

Step6. From the bottom of the screen, click on 'Sheet 1' to go to Worksheet.

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Part Three: Navigating the Tableau interface

Step1. Note the different sections in the Tableau interface.

Step2. The pane in the left is called the Data window and has two tabs: Data and Analytics. Note that the data from the table you opened, is automatically classified into:

- **Dimensions:** *Discrete* fields that can be used to group data, such as city, Product Name, etc.
- **Measures:** Generally numeric (& *continuous*) data, which you may want to perform calculations on.

Question 6. Write the name of three fields from Dimensions.

City, Country and Market

Question 7. Write the name of three fields from Measures.

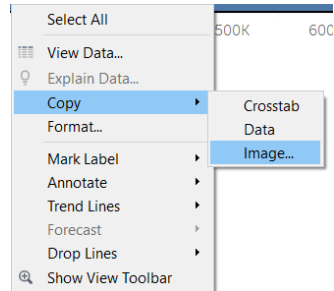
Discount, Profit and Quantity

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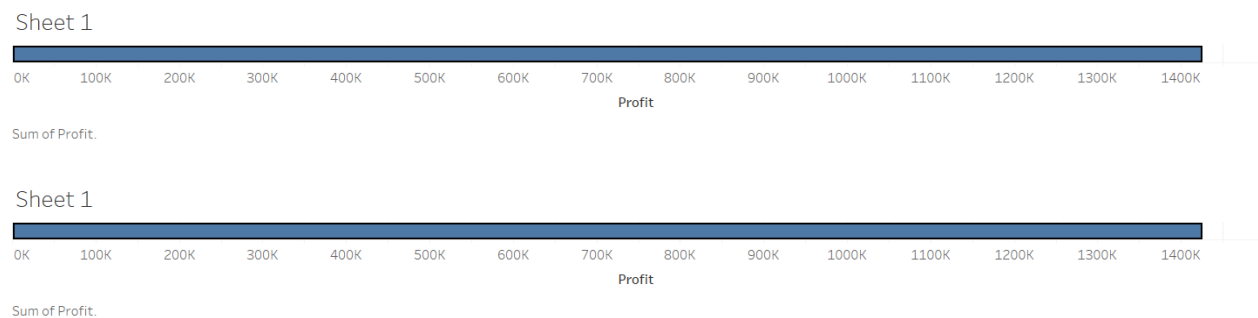
Part Four: Creating charts

Step1. Drag and drop *Profit* from the data window (under Measures) into Columns shelf.

Question 8. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 8**)



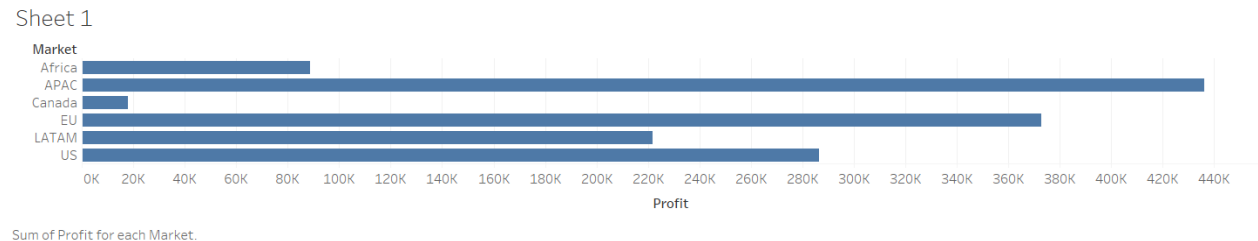
It should look like this



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Step2. Drag and drop Market from the data window (under Dimensions) into Rows shelf.

Question 9. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 9**)



Step3. From the toolbar (as shown), choose the Swap Rows and Columns button.



Question 10. What type of graph is used?

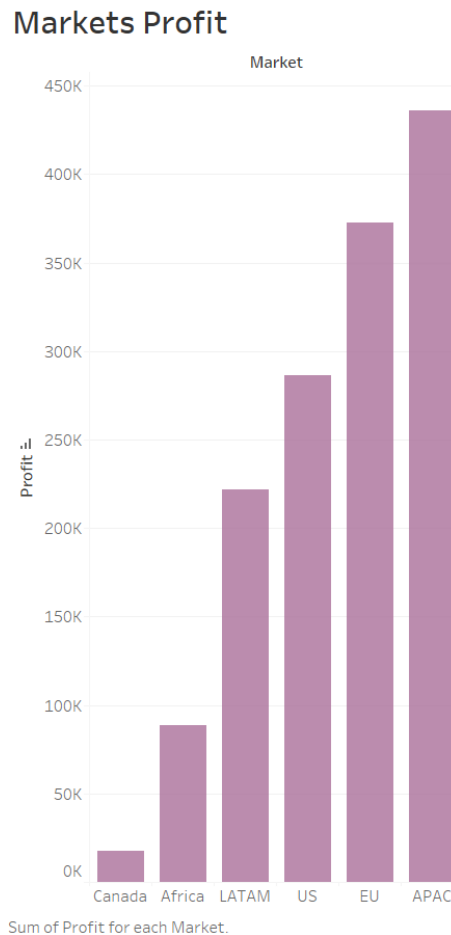
It is using Bar Chart (Column chart)

Step4. Click on Color in the Marks card and change the color of the bars.

Step5. Change the title.

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Question 11. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 11**)



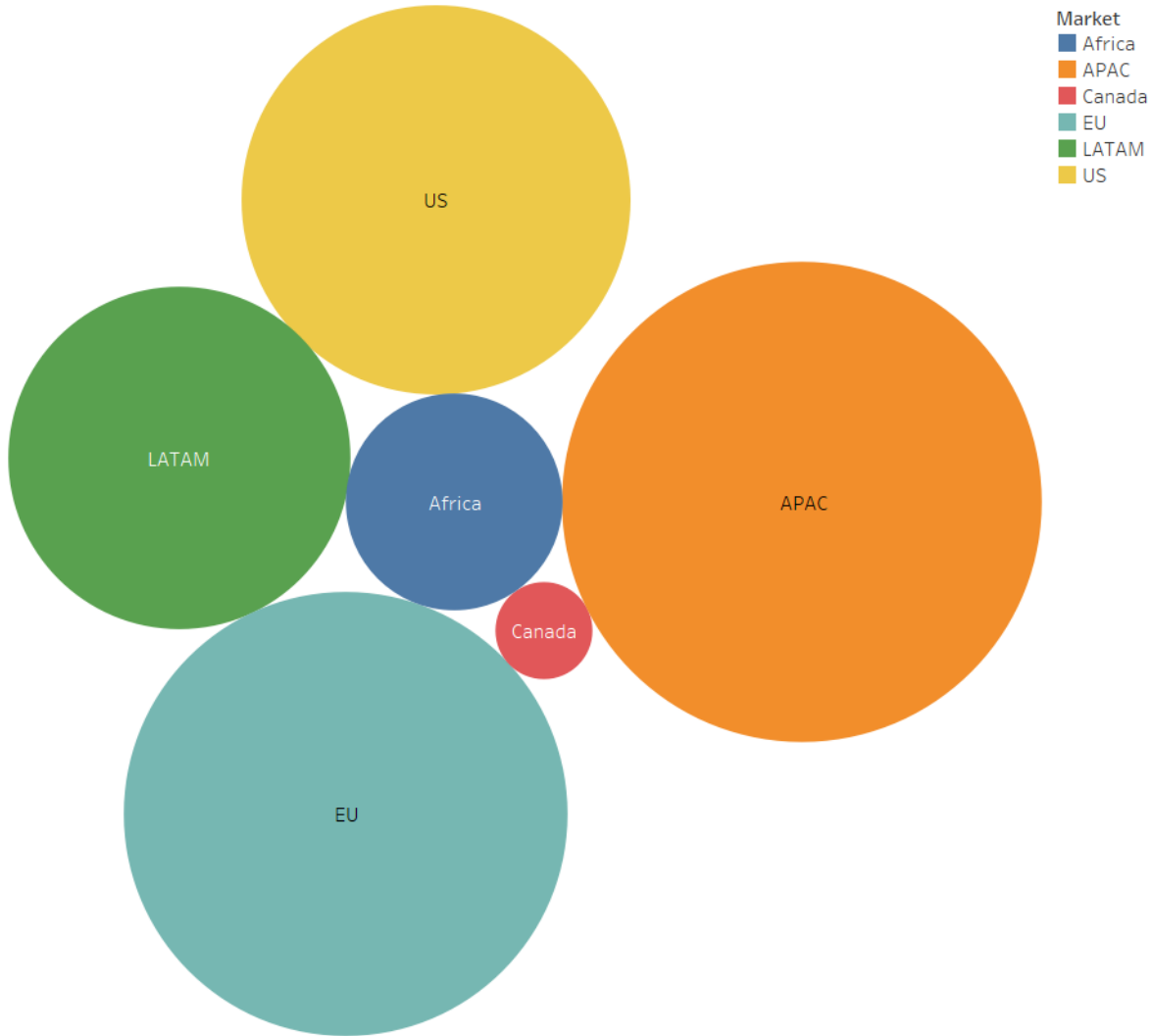
Step6. From the Show Me card on the right pane, choose the packed bubbles graph.

Step7. Note the items added to the Marks card. Click on Label and decrease the font size to 9.

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Question 12. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 12**)

Markets Profit



Market. Color shows details about Market. Size shows sum of Profit. The marks are labeled by Market.

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Part Five: Create the Visualizations Top 10 Country

Create the column chart for the Top 10 country for 2014 year. The following are the parameters you wanted for the exploration of the sales value in your column chart. Note that Tableau will assume certain things for you as you create your visualization.

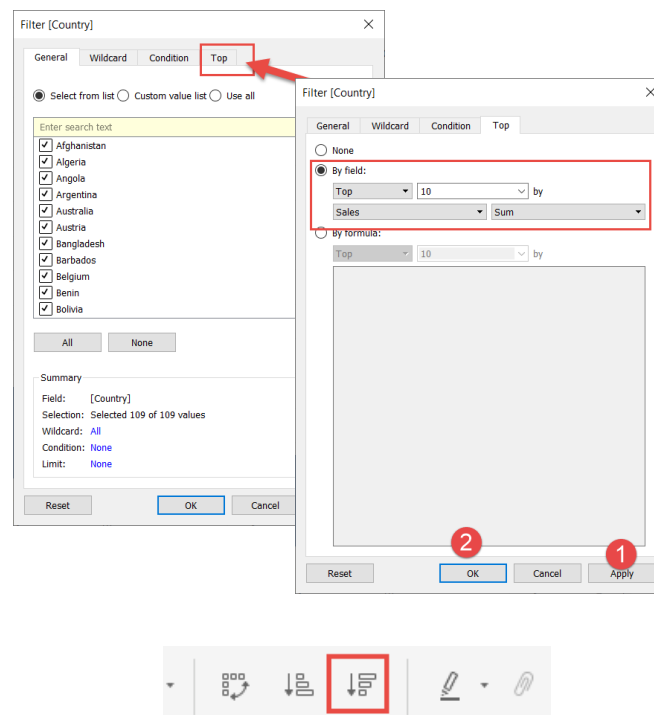
Step1. Start by dragging and dropping the dimensions of **Country** to the Columns cell and the **Sales** measure to the Rows cell.

Step2. Since we only want the top 10 Country for the year 2014, we need to drag and drop, in order, the **Country** dimension and the **Order Date** dimension to the Filters cell. A Filter [] pop-up will appear to select what is to be filtered.

Step3. Drag **Country** to Filters, then Select the Top tab (rectangle in red).

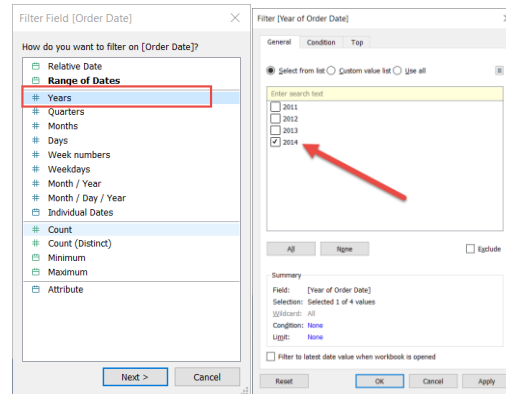
Step4. Select the radial button **By field**, The Top 10 by **Sales** Sum should already be selected. Then, click OK.

Step5. The column is not currently in descending order. Select descending on the top tool bar



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Step6. Drag **Order Date** to Filters, Select Years in Filter Field (highlighted in blue) and click **Next**.
And then, select 2014 in **Enter search** text. Click OK.



At this point, we have our visualization but need to adjust the Title, the y-axis to reflect Sales and the bars in order to see the Country spelling completely.

Step7. To adjust the Title, double click on the *Sheet 1* tab at the bottom

Step8. Rename <Sheet?> to **Top 10 Country Sales for 2014**. Then, hit *enter* to complete

Step9. To adjust the y-axis, right click on **Sales** and select *Format* – The left navigation pane will change to allow you to format the y-axis

Under Scale, select the down arrow on Numbers: and select Currency (Custom)

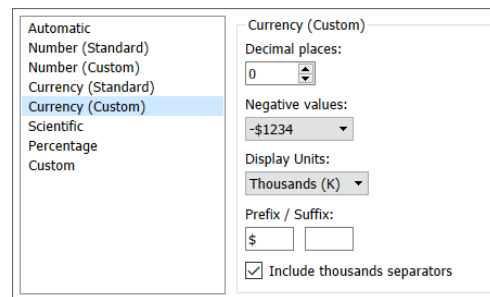
Verify the following (see screen shot):

Change the *Decimal places*: to 0.

Change the *Units*: to Thousands (K).

Negative values: is (\$1234)

Prefix / Suffix: is \$



Step10. Now you must adjust the column widths.

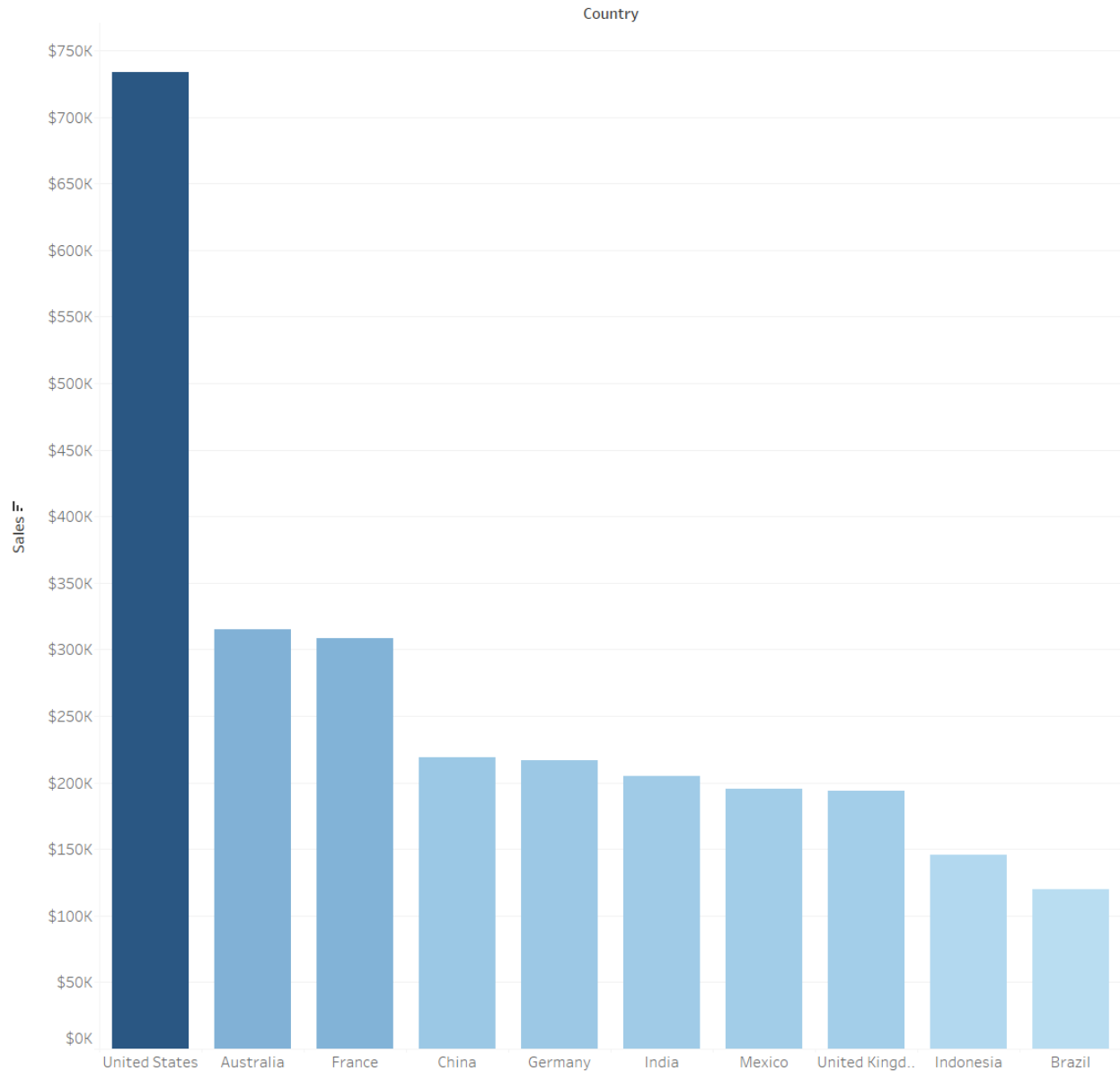
Step11. Finally, to view your final product, click on Presentation Mode (F7) on the top tool bar (Rectangle in red).



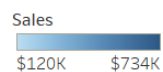
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Question 13. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 13**)

Top 10 Country Sales for 2014



Sum of Sales for each Country. Color shows sum of Sales. The data is filtered on Order Date Year, which keeps 2014. The view is filtered on Country, which keeps 10 of 109 members.



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Deliverables:

SENECA'S ACADEMIC HONESTY POLICY

As a Seneca student, you must conduct yourself in an honest and trustworthy manner in all aspects of your academic career. A dishonest attempt to obtain an academic advantage is considered an offense and will not be tolerated by the College.

Add this declaration to your submission file:

I/WE Sepehr Salehi, Rongzhao Yi, Conghan Zheng and Roohalah Taraf declare that the attached assignment is our own work in accordance with the **Seneca Academic Honesty Policy**. I/We do not copy any part of this assignment, manually or electronically, from any other source including web sites, unless specified as references. I do not distribute my work to other students.

	Name	Task(s)
1	Conghan Zheng	Part two
2	Rongzhao Yi	Part Three
3	Sepehr Salehi	Part four
4	Roohalah Taraf	Part five

Using Blackboard, submit a PDF file

Save your group work as

<**ZAA.2231 10**>_ws2.pdf