WorkShop2

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Instructions:

- The workshop must be submitted **in team of two** (with the pair working together and receiving 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):

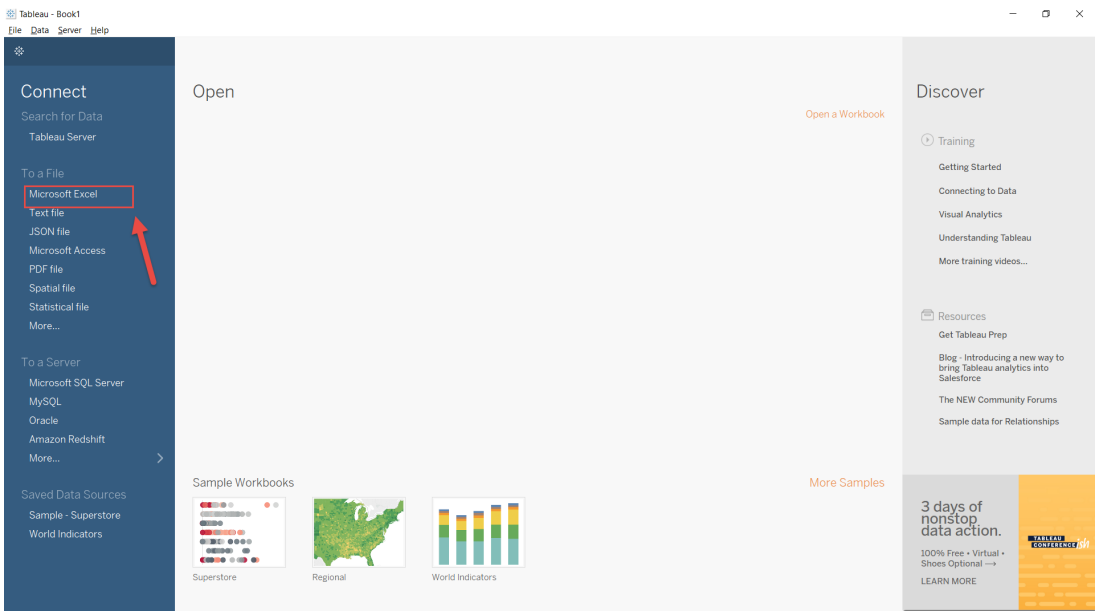
- Getting Started (25 min).
- The Tableau Interface (4 min)
- Distributing and Publishing (4 min)

Answer: Done

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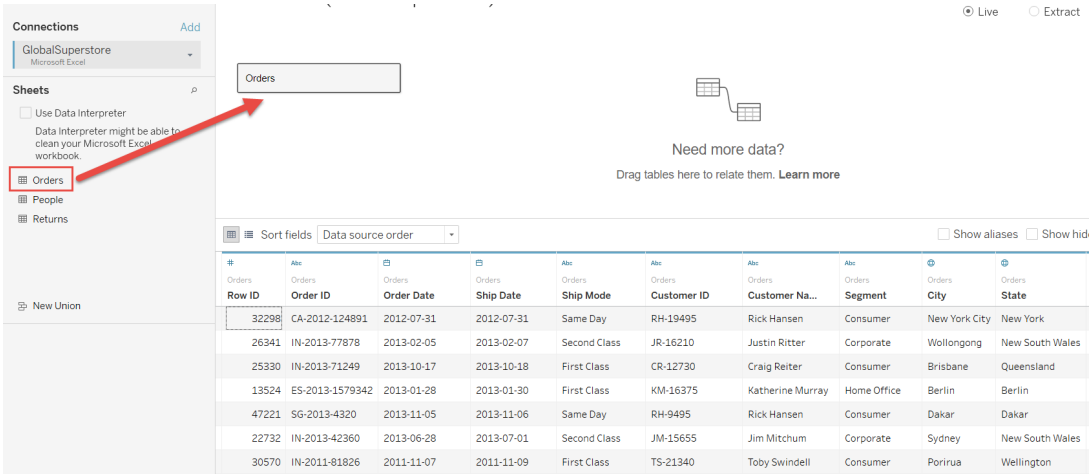
Step3. Choose Connect > To a File > Microsoft Excel and open the "**GlobalSuperstore.xls**" file. The Data Connections screen appears.

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.



Orders Row ID	Orders Order ID	Orders Order Date	Orders Ship Date	Orders Ship Mode	Orders Customer ID	Orders Customer Na...	Orders Segment	Orders City	Orders State
32298	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495	Rick Hansen	Consumer	New York City	New York
26341	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR-16210	Justin Ritter	Corporate	Wollongong	New South Wales
25330	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR-12730	Craig Reiter	Consumer	Brisbane	Queensland
13524	ES-2013-1579342	2013-01-28	2013-01-30	First Class	KM-16375	Katherine Murray	Home Office	Berlin	Berlin
47221	SG-2013-4320	2013-11-05	2013-11-06	Same Day	RH-9495	Rick Hansen	Consumer	Dakar	Dakar
22732	IN-2013-42360	2013-06-28	2013-07-01	Second Class	JM-15655	Jim Mitchum	Corporate	Sydney	New South Wales
30570	IN-2011-81826	2011-11-07	2011-11-09	First Class	TS-21340	Toby Swindell	Consumer	Porirua	Wellington

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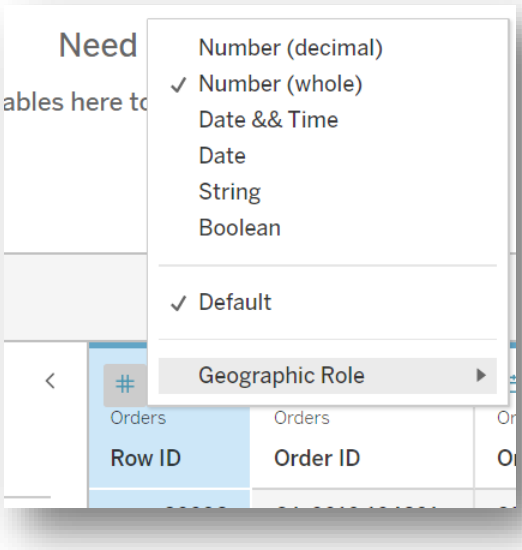
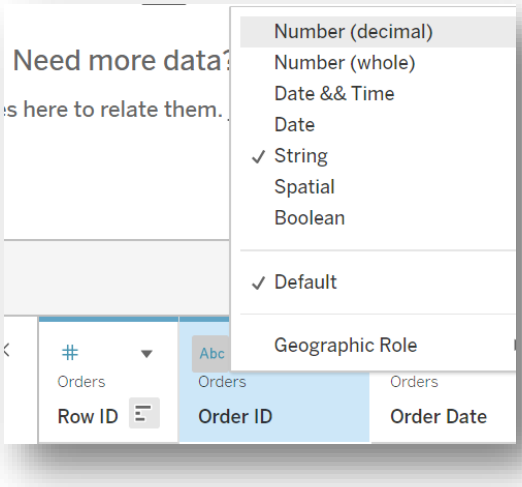
Question 1. Click on # in the header of the first column. What is the data type for RowID?

Answer 1: Number (Whole)



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

Answer 2: String



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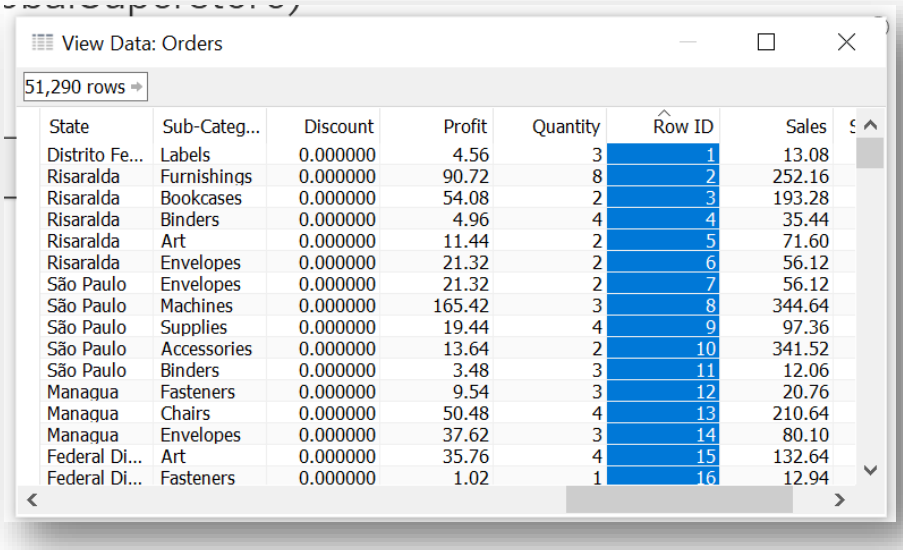
Question 3. Click on the sorting symbol for RowID to sort in ascending or descending order.
What is the lowest RowID in this table?
What is the highest RowID?

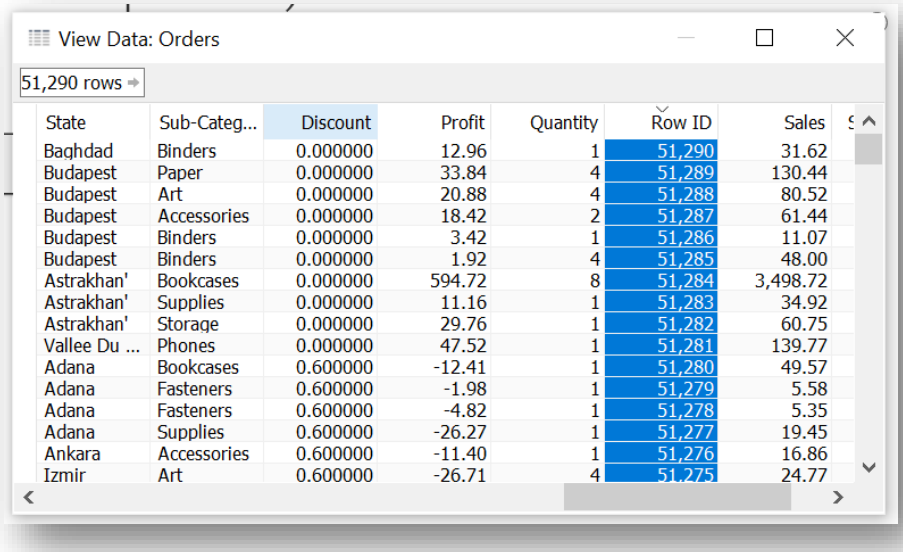
Answer 3: There are 51290 rows in the Orders table,

1 is the lowest RowID and



State	Sub-Categ...	Discount	Profit	Quantity	Row ID	Sales
Distrito Fe...	Labels	0.000000	4.56	3	1	13.08
Risaralda	Furnishings	0.000000	90.72	8	2	252.16
Risaralda	Bookcases	0.000000	54.08	2	3	193.28
Risaralda	Binders	0.000000	4.96	4	4	35.44
Risaralda	Art	0.000000	11.44	2	5	71.60
Risaralda	Envelopes	0.000000	21.32	2	6	56.12
São Paulo	Envelopes	0.000000	21.32	2	7	56.12
São Paulo	Machines	0.000000	165.42	3	8	344.64
São Paulo	Supplies	0.000000	19.44	4	9	97.36
São Paulo	Accessories	0.000000	13.64	2	10	341.52
São Paulo	Binders	0.000000	3.48	3	11	12.06
Managua	Fasteners	0.000000	9.54	3	12	20.76
Managua	Chairs	0.000000	50.48	4	13	210.64
Managua	Envelopes	0.000000	37.62	3	14	80.10
Federal Di...	Art	0.000000	35.76	4	15	132.64
Federal Di...	Fasteners	0.000000	1.02	1	16	12.94

51290 is the highest RowID



State	Sub-Categ...	Discount	Profit	Quantity	Row ID	Sales
Baghdad	Binders	0.000000	12.96	1	51,290	31.62
Budapest	Paper	0.000000	33.84	4	51,289	130.44
Budapest	Art	0.000000	20.88	4	51,288	80.52
Budapest	Accessories	0.000000	18.42	2	51,287	61.44
Budapest	Binders	0.000000	3.42	1	51,286	11.07
Budapest	Binders	0.000000	1.92	4	51,285	48.00
Astrakhan'	Bookcases	0.000000	594.72	8	51,284	3,498.72
Astrakhan'	Supplies	0.000000	11.16	1	51,283	34.92
Astrakhan'	Storage	0.000000	29.76	1	51,282	60.75
Vallee Du ...	Phones	0.000000	47.52	1	51,281	139.77
Adana	Bookcases	0.600000	-12.41	1	51,280	49.57
Adana	Fasteners	0.600000	-1.98	1	51,279	5.58
Adana	Fasteners	0.600000	-4.82	1	51,278	5.35
Adana	Supplies	0.600000	-26.27	1	51,277	19.45
Ankara	Accessories	0.600000	-11.40	1	51,276	16.86
Izmir	Art	0.600000	-26.71	4	51,275	24.77

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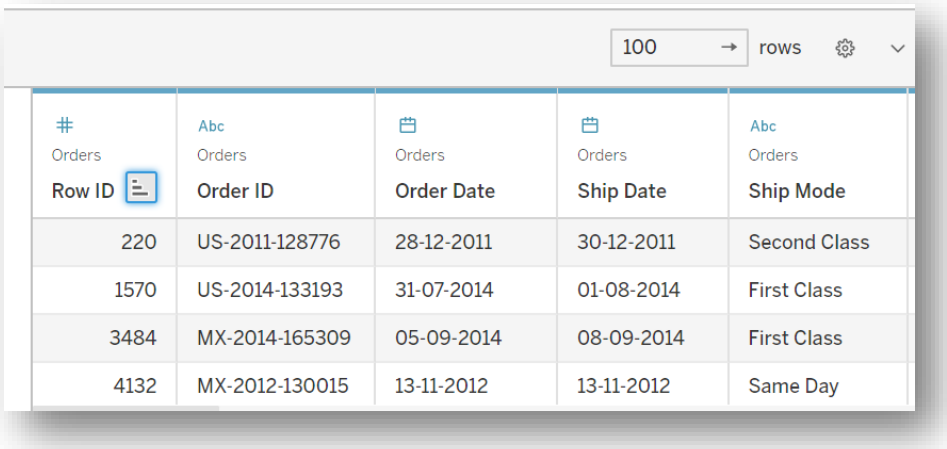
If we look at the current view of 100 random rows:

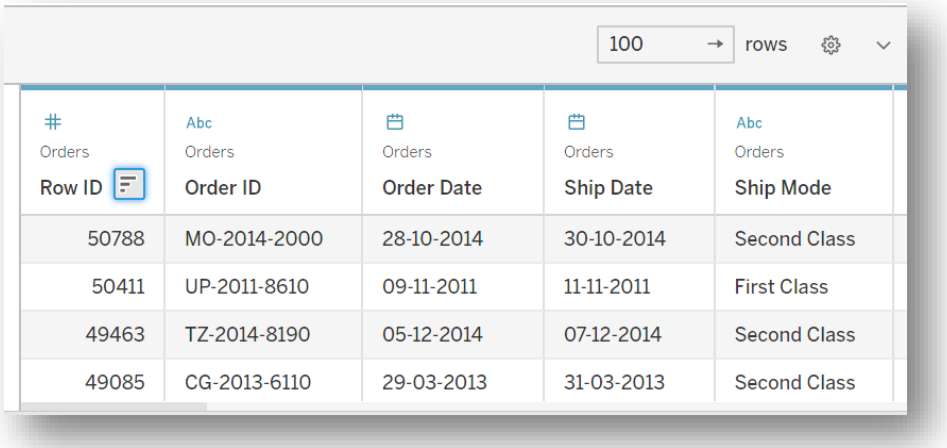
220 is the lowest RowID



100 → rows

Orders Row ID	Orders Order ID	Orders Order Date	Orders Ship Date	Orders Ship Mode
220	US-2011-128776	28-12-2011	30-12-2011	Second Class
1570	US-2014-133193	31-07-2014	01-08-2014	First Class
3484	MX-2014-165309	05-09-2014	08-09-2014	First Class
4132	MX-2012-130015	13-11-2012	13-11-2012	Same Day

50788 is the highest RowID



100 → rows

Orders Row ID	Orders Order ID	Orders Order Date	Orders Ship Date	Orders Ship Mode
50788	MO-2014-2000	28-10-2014	30-10-2014	Second Class
50411	UP-2011-8610	09-11-2011	11-11-2011	First Class
49463	TZ-2014-8190	05-12-2014	07-12-2014	Second Class
49085	CG-2013-6110	29-03-2013	31-03-2013	Second Class

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

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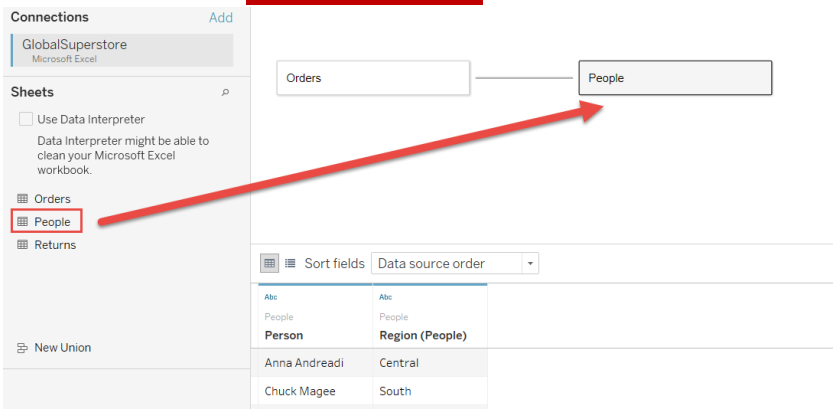
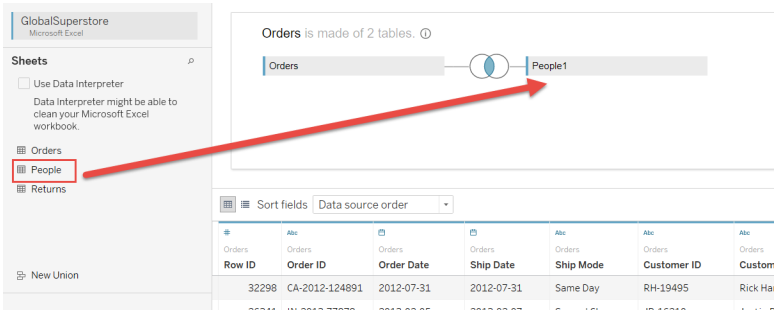
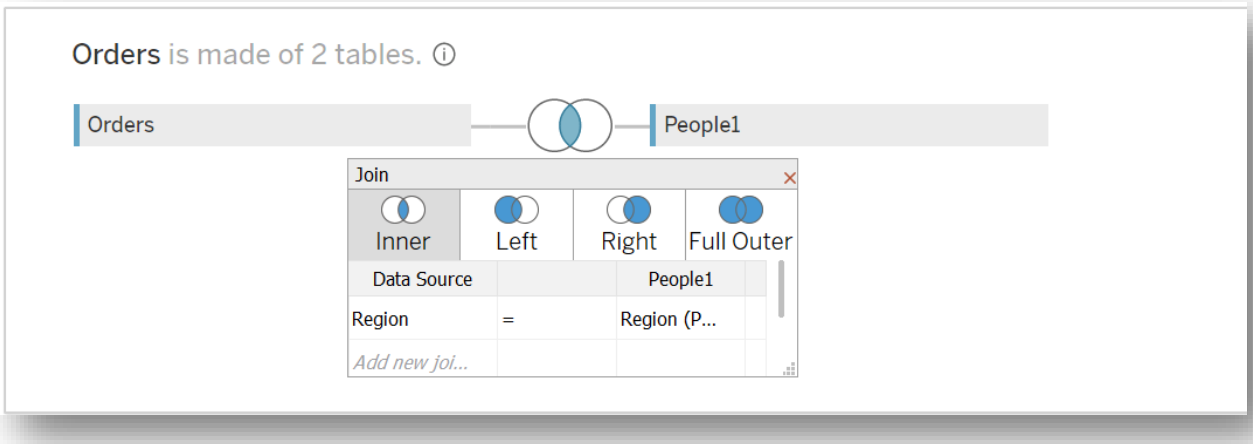




Question 4. Right click the joining symbol. Which join type is selected? Inner, Left, Right, or Full join?

Answer 4: Inner join



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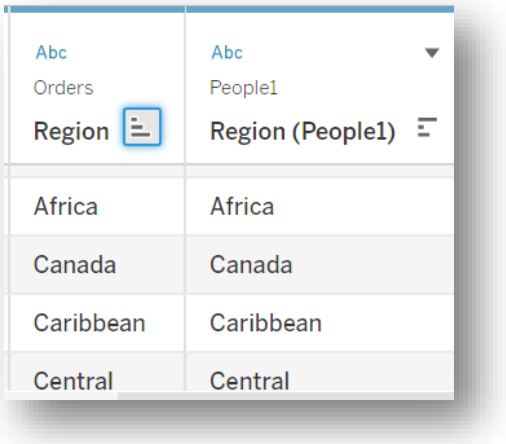
Question 5. The criteria for join is shown as Region = Region (People1). Check to see that for every row in the data preview, the value of Region column (from Orders) is the same as the value of the Region (people) column (from People). **Are they the same? Any exceptions?**

Answer 5: Tables Orders and People1 are joining with mutual column – Region

So, they are the same columns in both tables, no exceptions.



Abc Orders Region	Abc People1 Region (People1)
Africa	Africa
Canada	Canada
Caribbean	Caribbean
Central	Central

(Hint: Choose Sort fields as A to Z descending, so the two Region columns show side by side)

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

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.

Answer 6: Dimensions are qualitative and descriptive values. For example: Product Name, Region, State.

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

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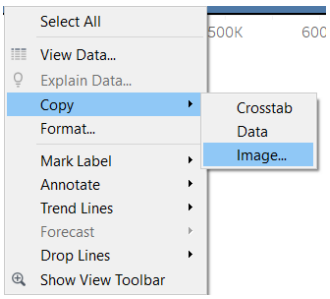
Answer 7: Measures are quantitative and numeric values. For example: Profit, Discount, Sales.

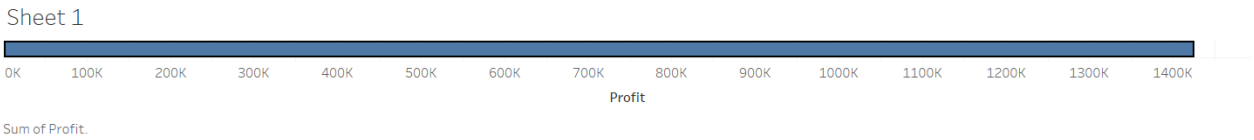
Part Four: Creating charts

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

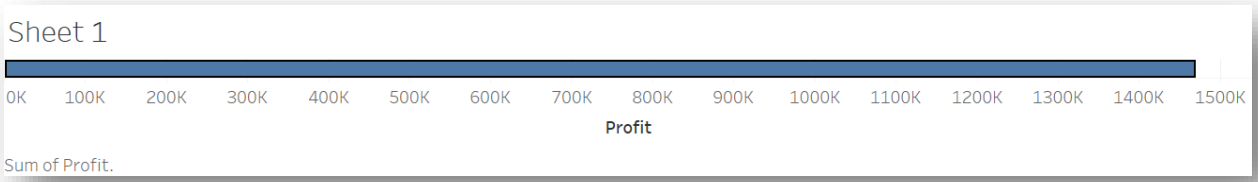
Question 8. Right click the image (or go to Worksheet menu), choose Copy> Image. Then, paste the image here. (In your submission under **Question 8**)



It should look like this



Answer 8:



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**)

Answer 9:

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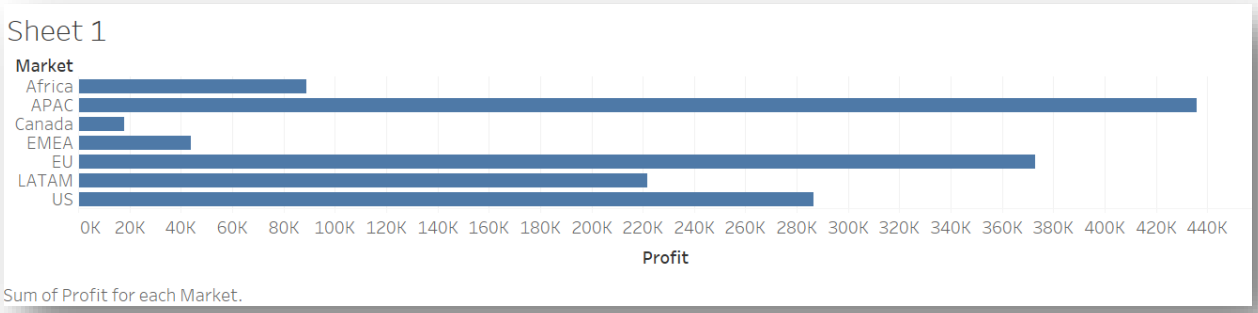
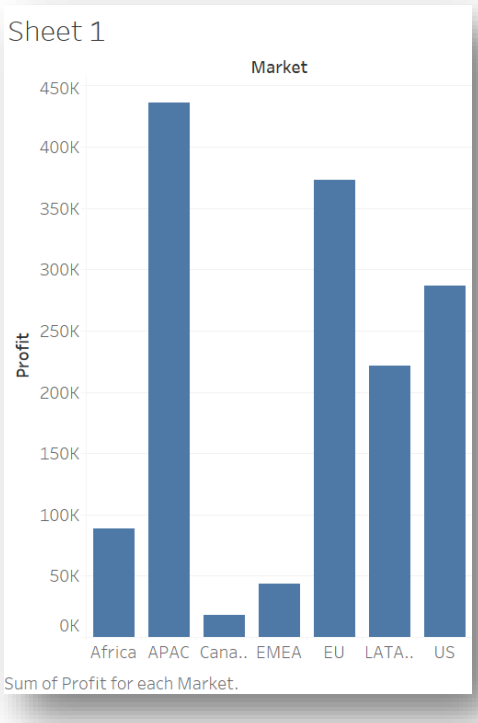


Step3. From the toolbar (as shown), choose the Swap Rows and Columns button.

Question 10. What type of graph is used?

Answer 10: Bar Chart



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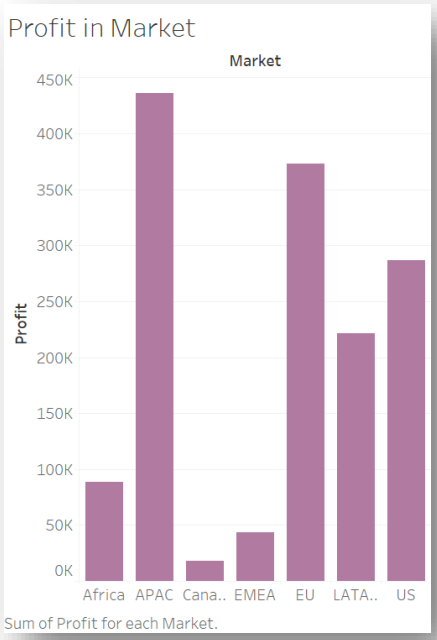
Step4. Click on Color in the Marks card and change the color of the bars.
Step5. Change the title.

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**)

Answer 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.

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**)

Answer 12:

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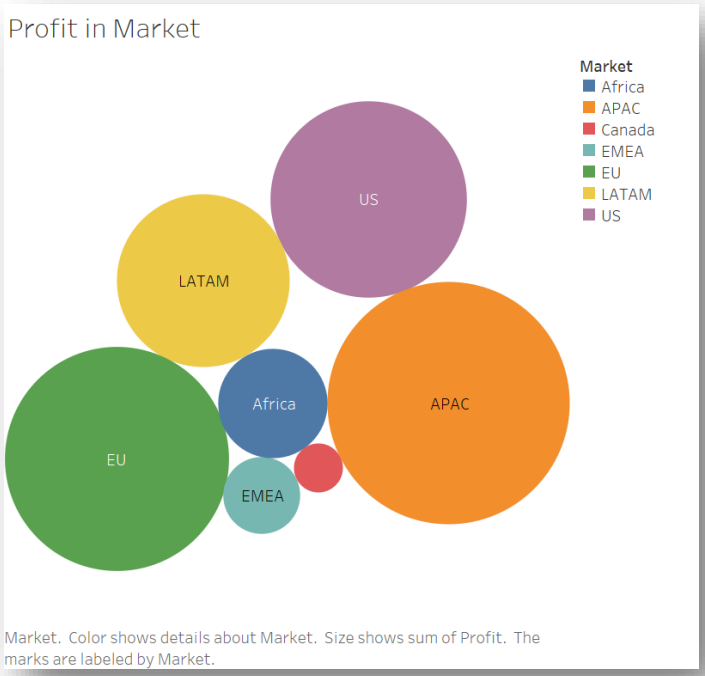

Part Five: Create the Visualizations Top 10 Country

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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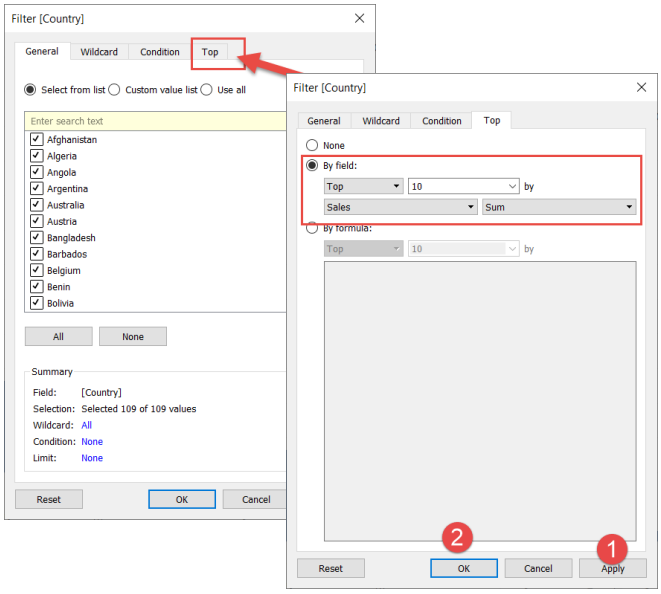
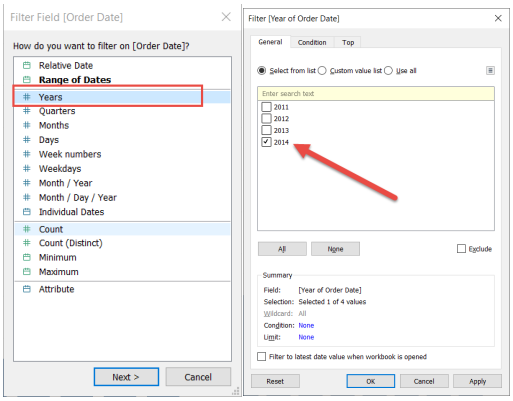


Step6. Drag **Order Date** to Filters, Select Years in Filter Field (highlighted in blue) and click **Next**. And then, select 2014 in **Enter search** text. Click OK.



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)

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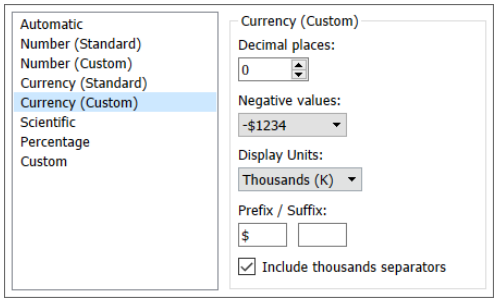
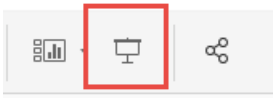
Verify the following (see screen shot):
Change the *Decimal places:* to 0.
Change the *Units:* to Thousands (K).
Negative values: is ($1234)
Prefix / Suffix: is $



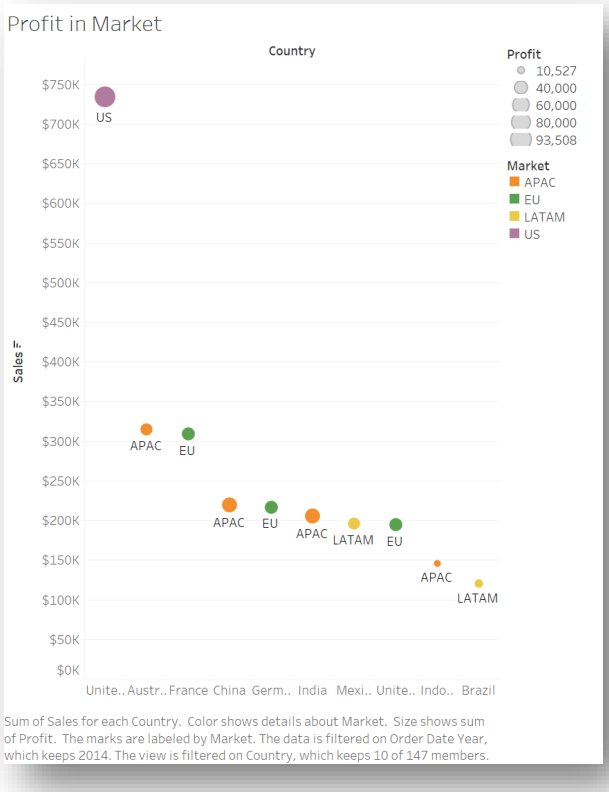
Step10. Now you must adjust the column widths.

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



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**)

Answer 13:



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Deliverables:

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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:

WE, Sukanya Mukherjee & Nishant Kotak, 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	Nishant Kotak	Workshop 2
2	Sukanya Mukherjee	Workshop 2

Using Blackboard, submit a PDF file

128347218,128041217_Kotak,Mukherjee_ws2.pdf