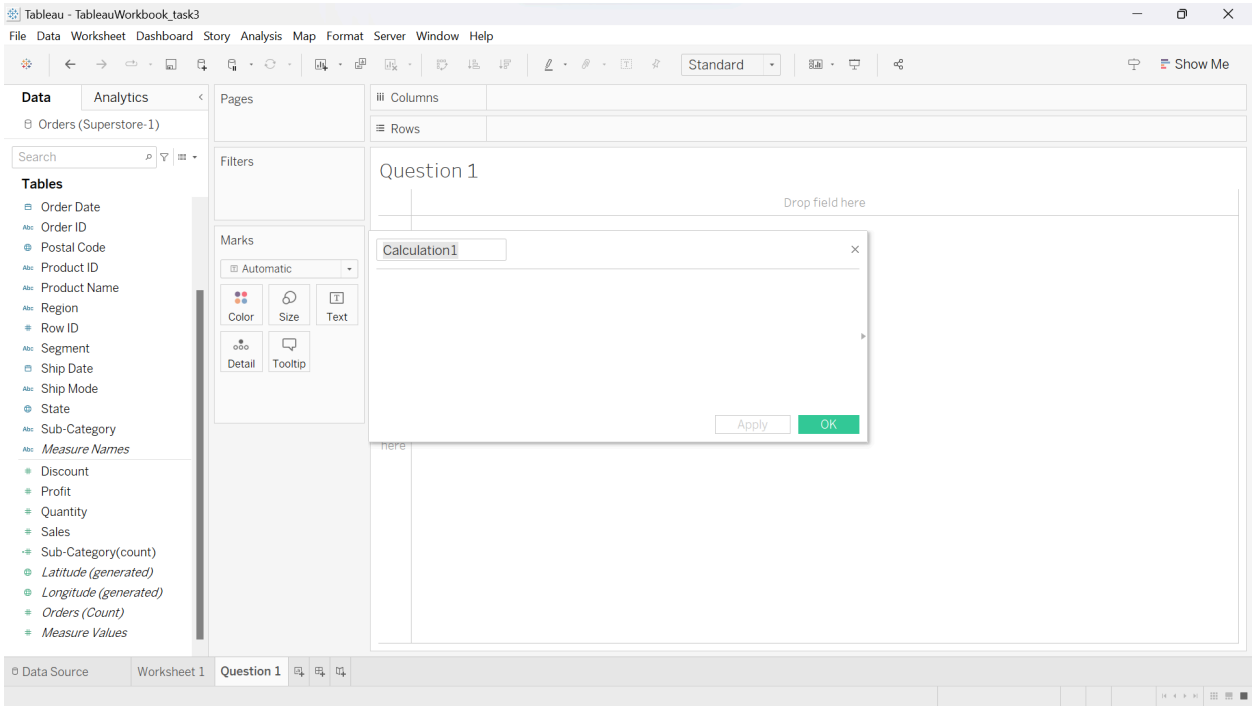
CSCE 5320 Section(s) 003,600 (Spring 2024 1)

Scientific Data Visualization

Question-1:

1.



2.

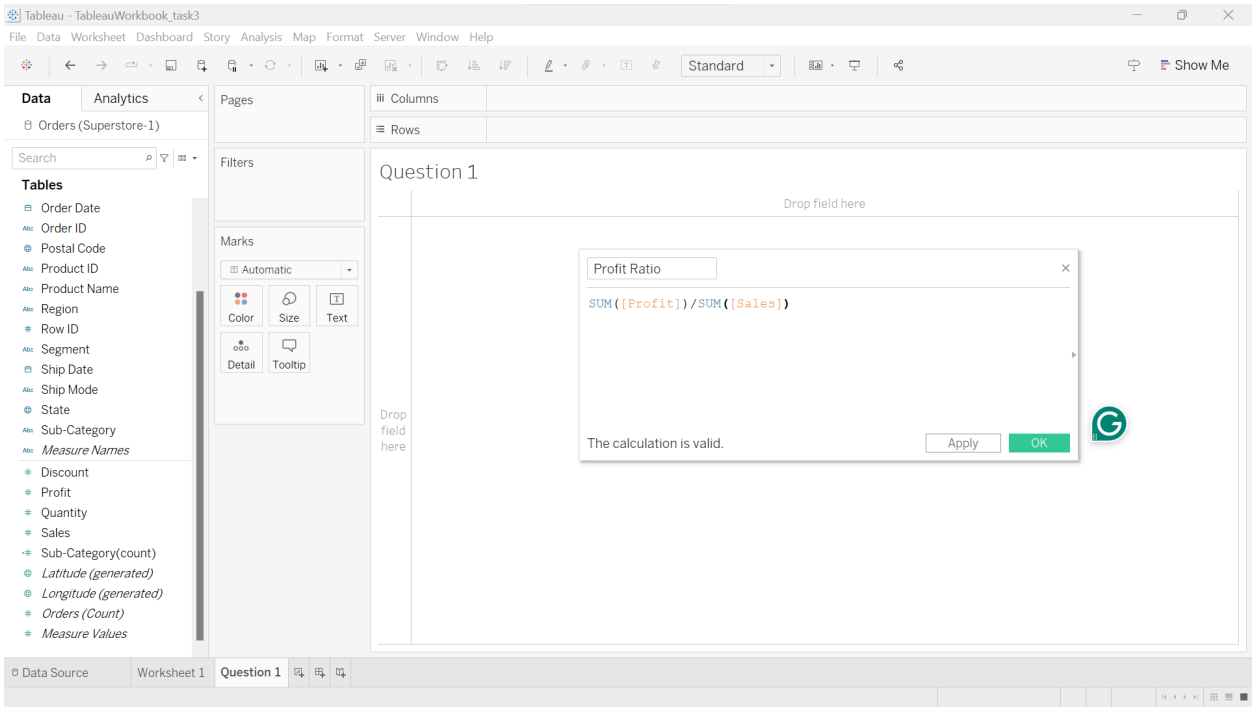


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Question 1
Drop field here
Drop field here
Profit Ratio
SUM([Profit])/SUM([Sales])
The calculation is valid.
Apply
OK
Data Source
Worksheet 1
Question 1

3.

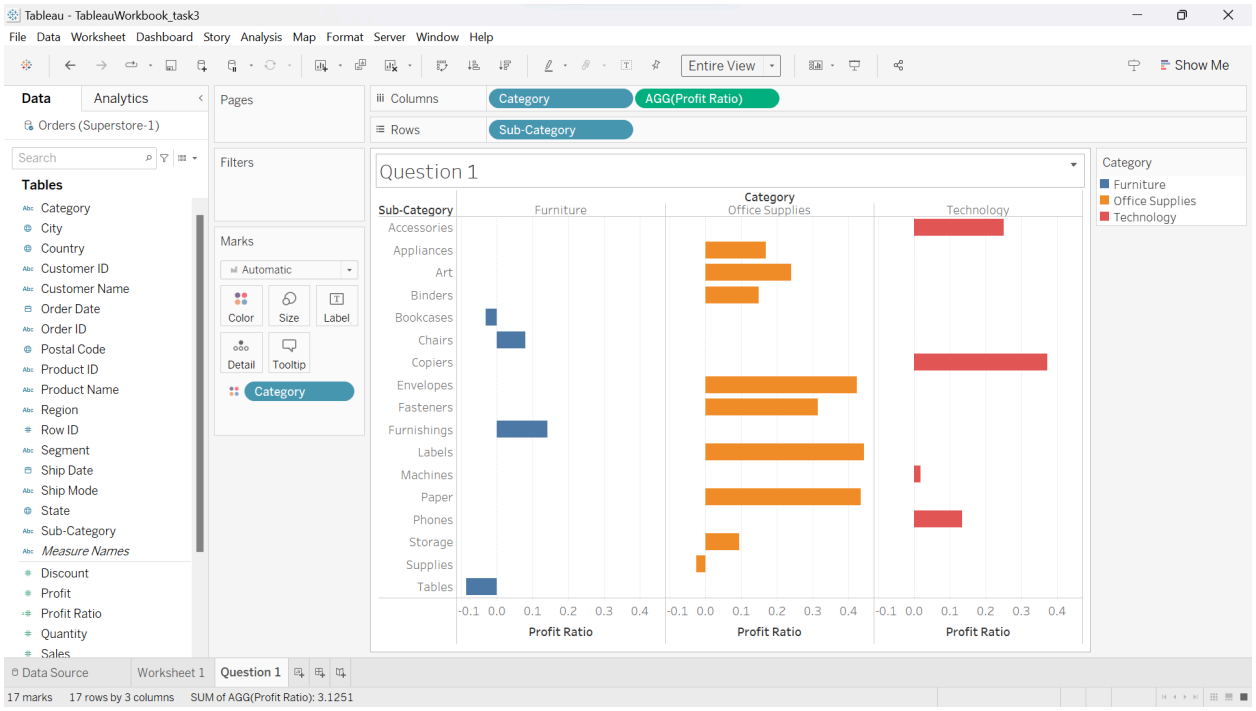


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Category
Columns
Category
AGG(Profit Ratio)
Rows
Sub-Category
Question 1
Sub-Category
Furniture
Category
Office Supplies
Technology
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
-0.1 0.0 0.1 0.2 0.3 0.4
Profit Ratio
Category
Furniture
Office Supplies
Technology
Data Source
Worksheet 1
Question 1
17 marks
17 rows by 3 columns
SUM of AGG(Profit Ratio): 3.1251

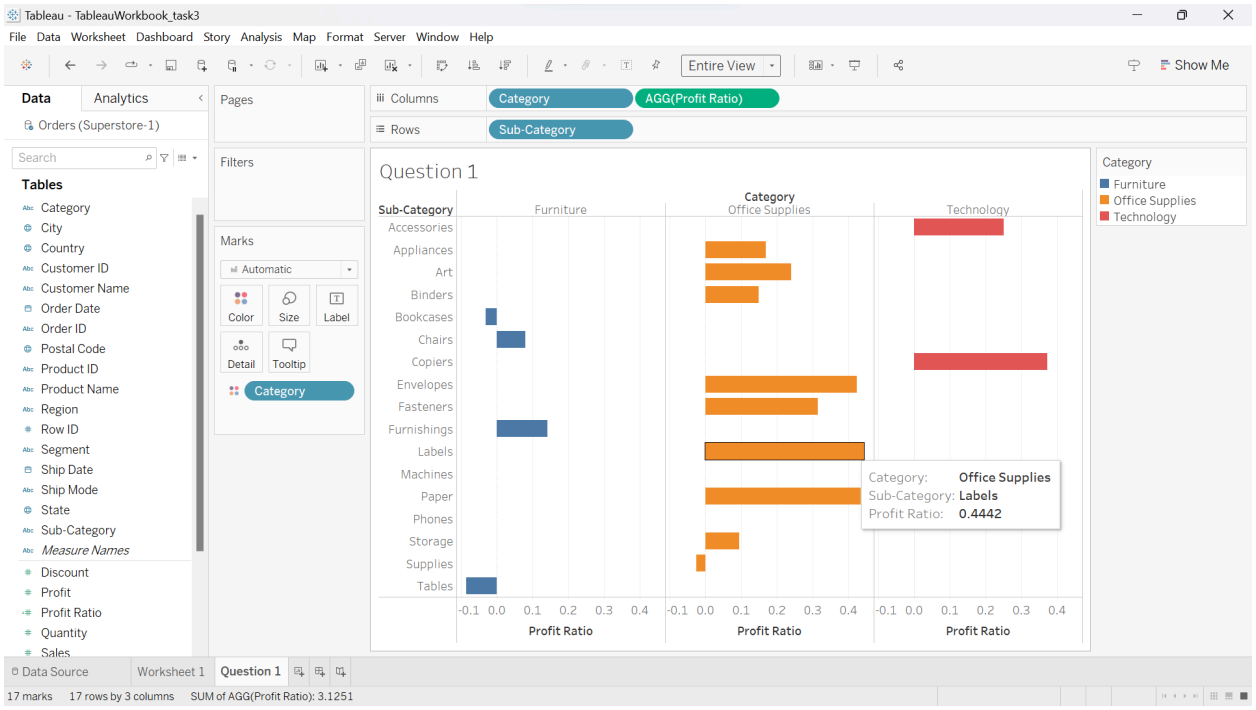


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Category
Columns
Category
AGG(Profit Ratio)
Rows
Sub-Category
Question 1
Sub-Category
Category
Furniture
Office Supplies
Technology
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Category: Office Supplies
Sub-Category: Labels
Profit Ratio: 0.4442
-0.1 0.0 0.1 0.2 0.3 0.4
Profit Ratio
Category
Furniture
Office Supplies
Technology
Data Source
Worksheet 1
Question 1
17 marks
17 rows by 3 columns
SUM of AGG(Profit Ratio): 3.1251

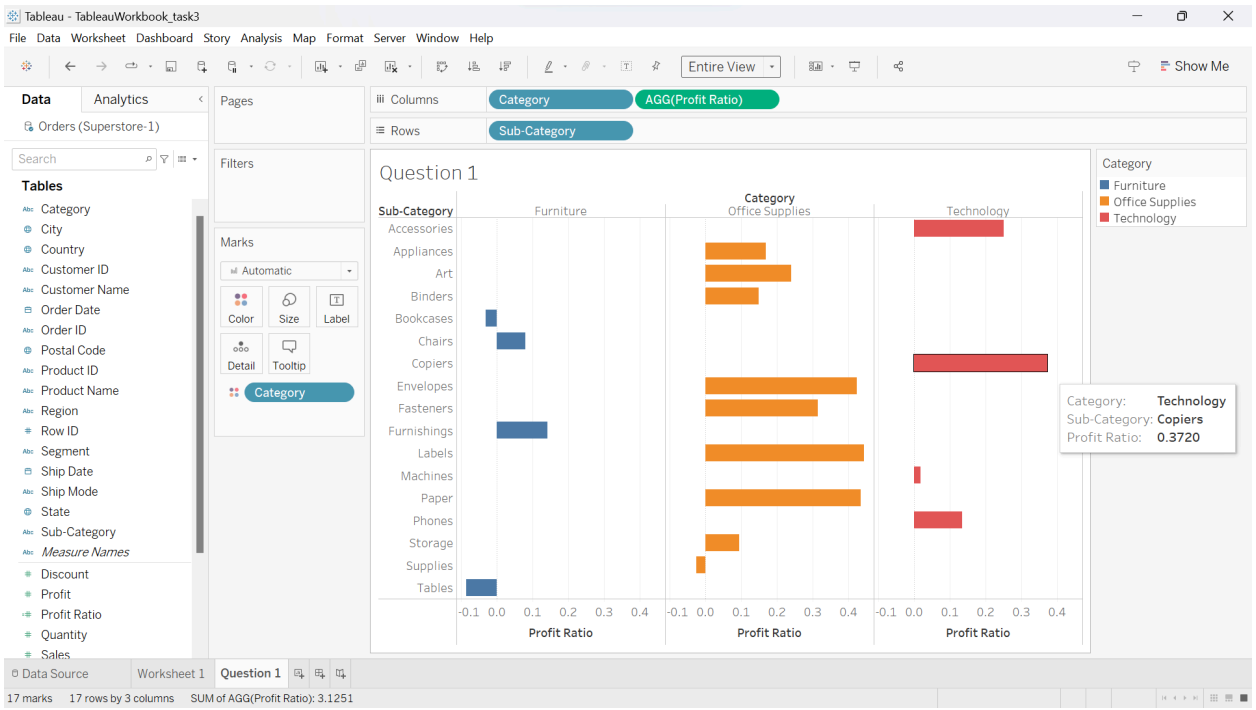
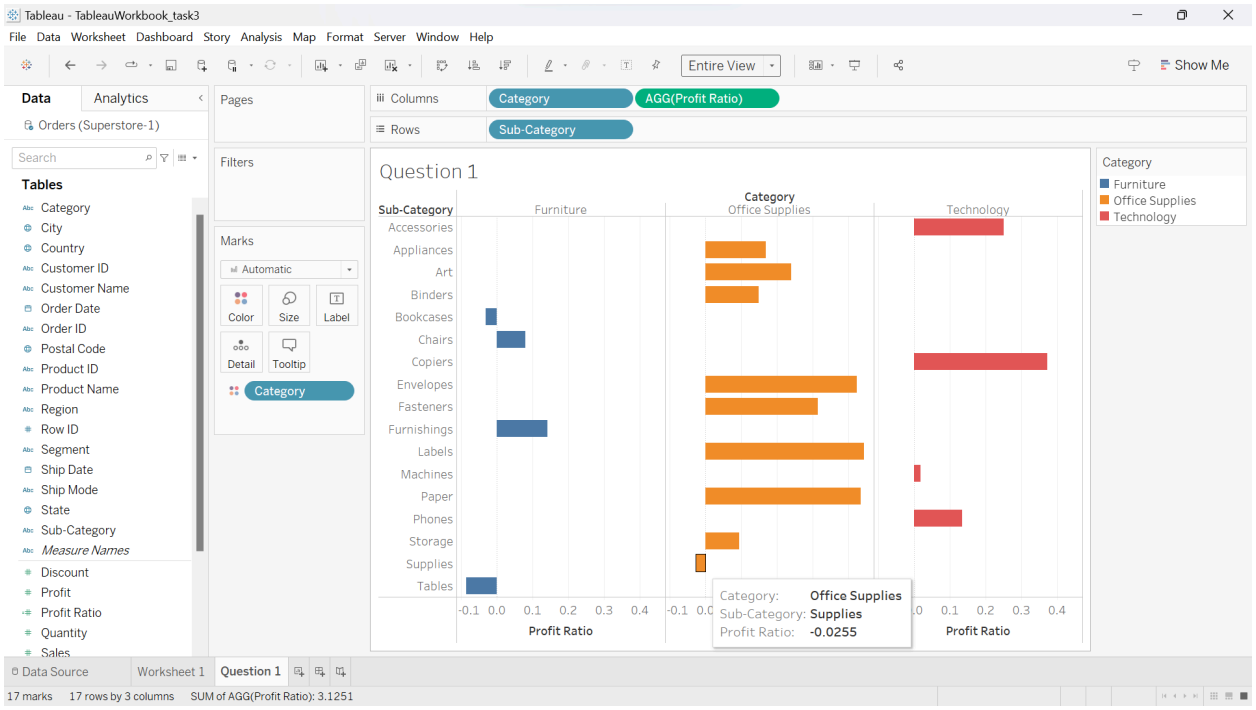
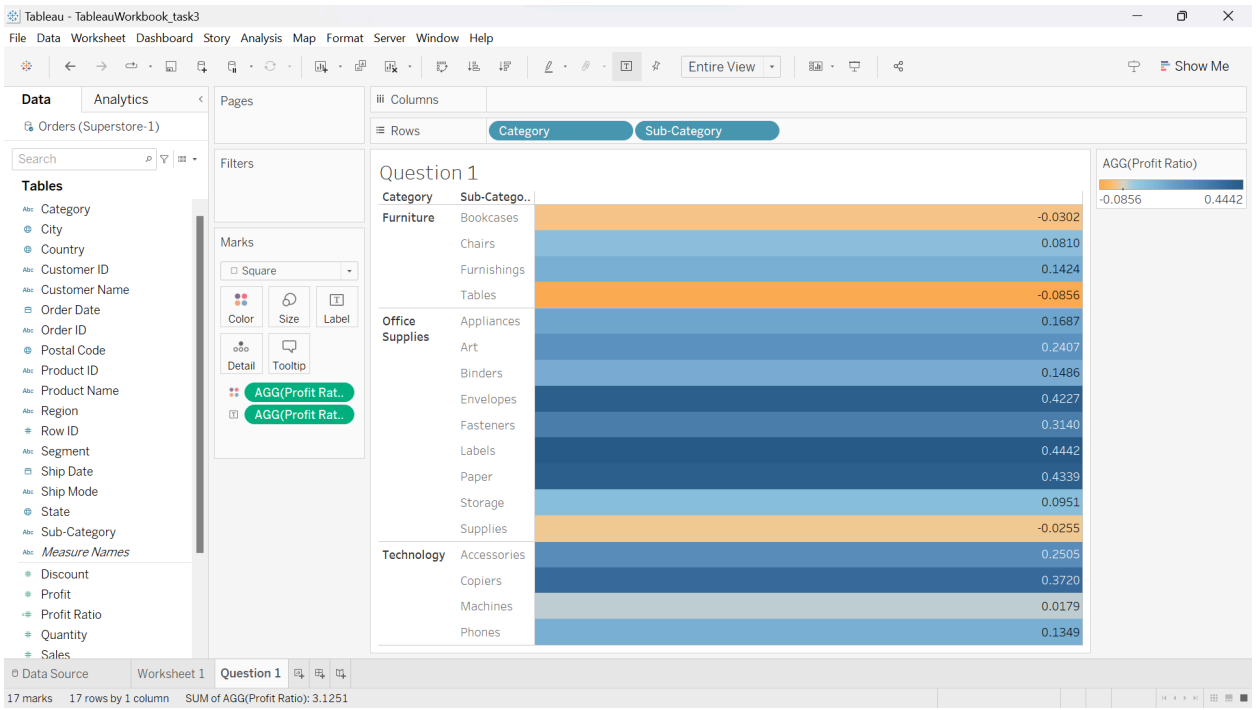


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Category
Columns
Category
AGG(Profit Ratio)
Rows
Sub-Category
Question 1
Sub-Category
Category
Furniture
Office Supplies
Technology
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Category: Technology
Sub-Category: Copiers
Profit Ratio: 0.3720
-0.1 0.0 0.1 0.2 0.3 0.4
Profit Ratio
Category
Furniture
Office Supplies
Technology
Data Source
Worksheet 1
Question 1
17 marks
17 rows by 3 columns
SUM of AGG(Profit Ratio): 3.1251



Highlight table

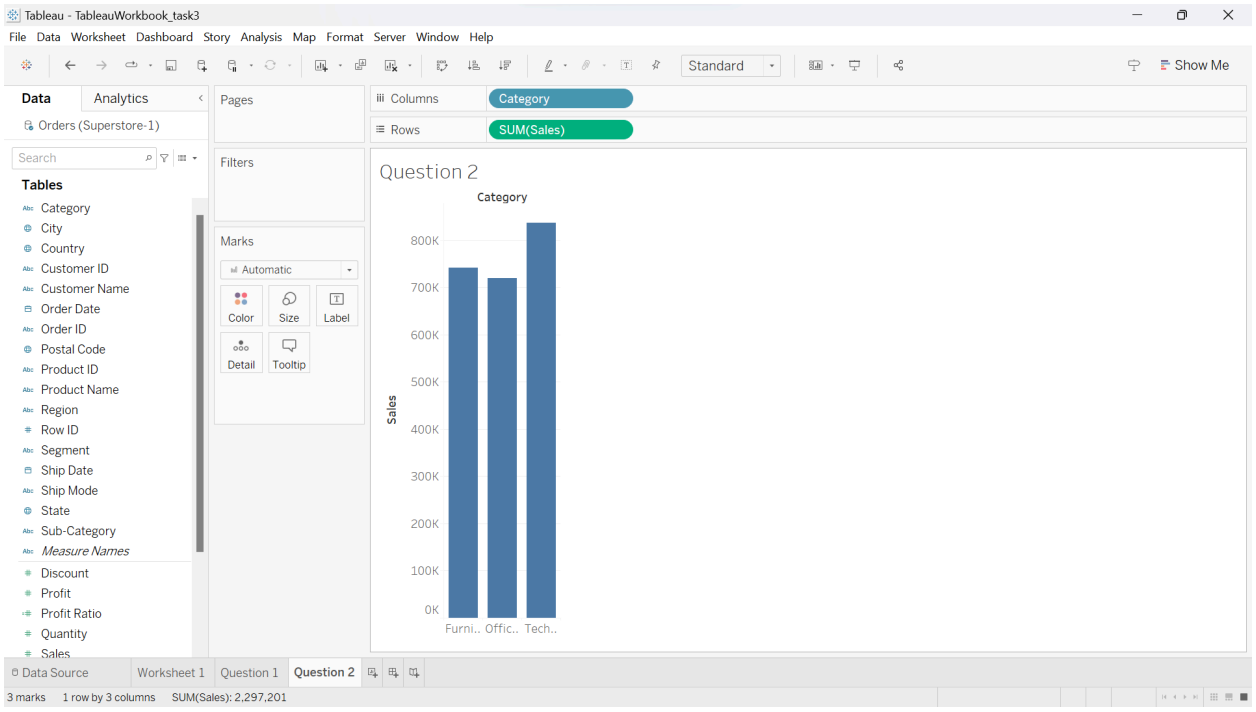


Analysis: I created a new calculated field editor that includes a function to determine the profit ratio of sales. By using this function, we can identify which items are profitable. From the visualization, we can see that the Office

Supplies category has the highest profit ratio. Within the Office Supplies category, the Labels subcategory has the highest profit ratio, while the Supplies category has the lowest. The next highest profit ratio is found in the Technology category with copiers. To provide a better understanding of the data, I also utilized highlight tables.

Question 2:

1.



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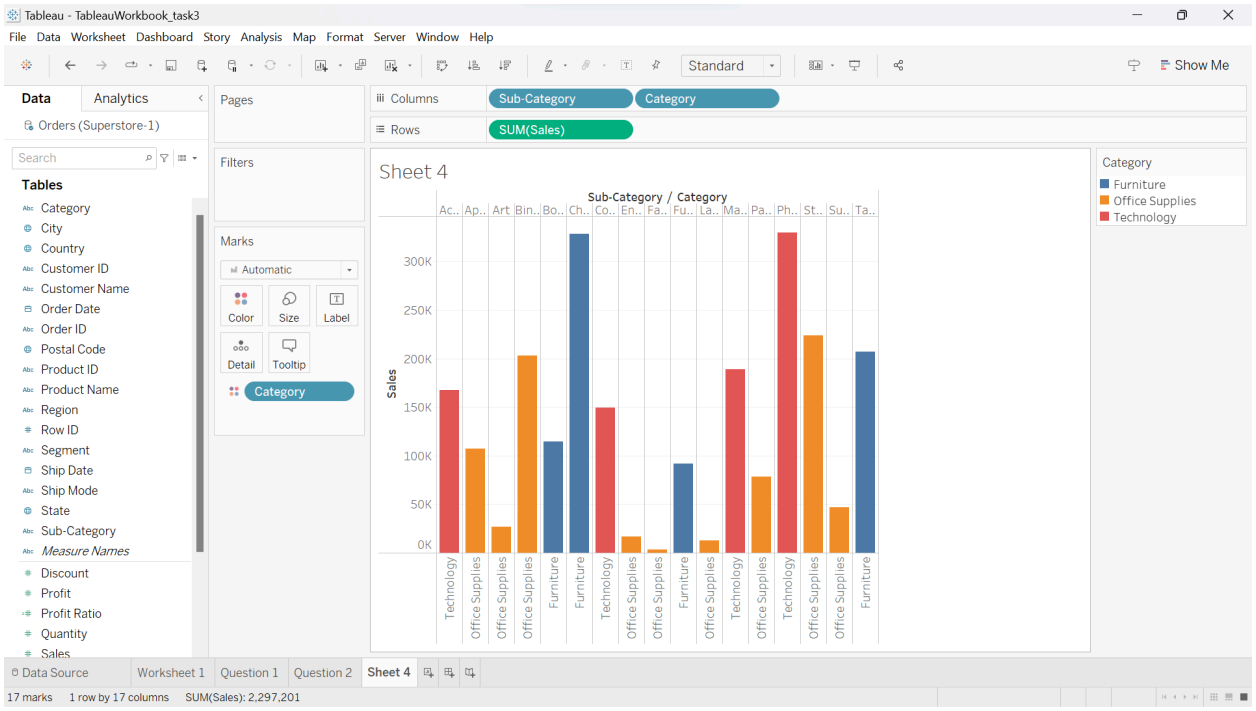


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Category
Columns
Sub-Category
Category
Rows
SUM(Sales)
Sheet 4
Sub-Category / Category
Sales
300K
250K
200K
150K
100K
50K
0K
Technology
Office Supplies
Furniture
Category
Furniture
Office Supplies
Technology
Data Source
Worksheet 1
Question 1
Question 2
Sheet 4
17 marks
1 row by 17 columns
SUM(Sales): 2,297,201

3.

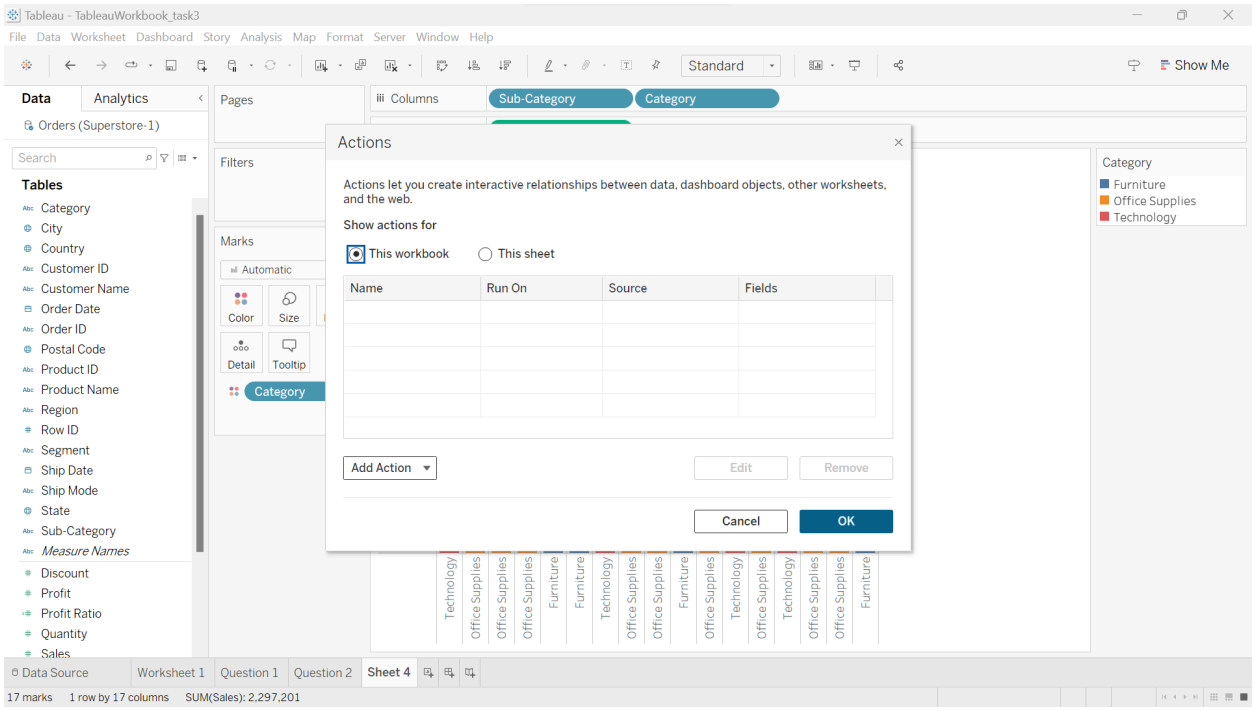
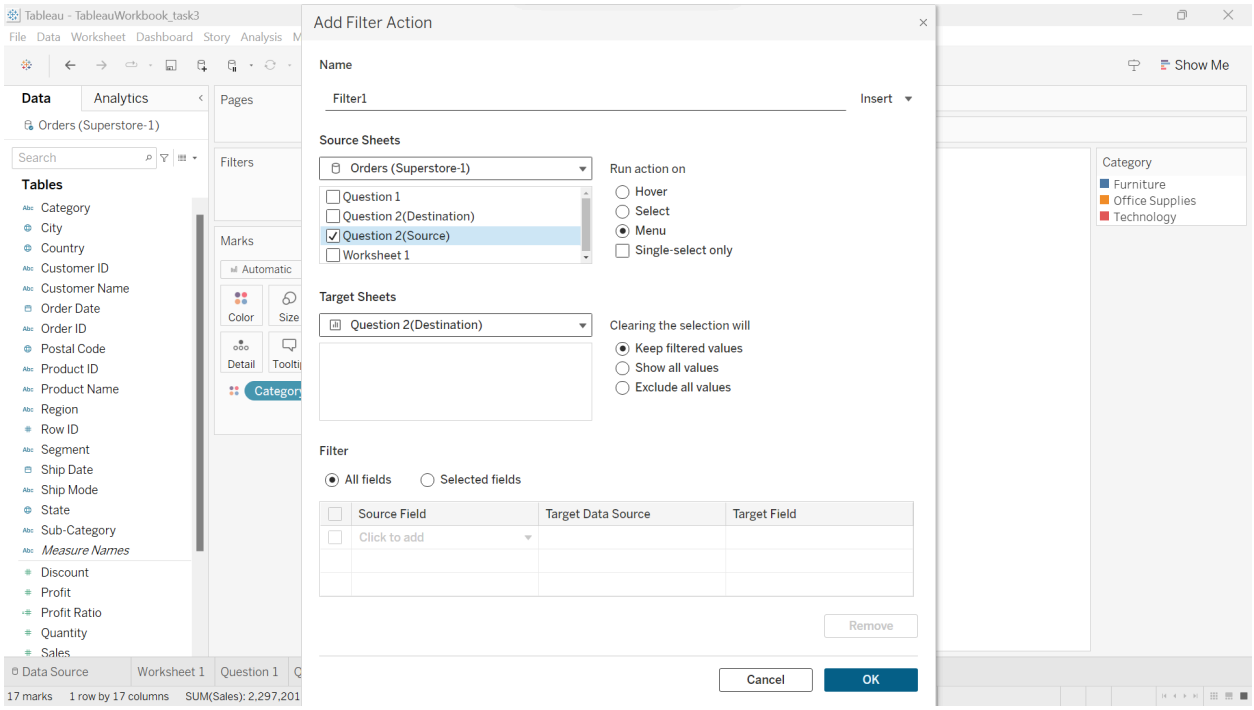
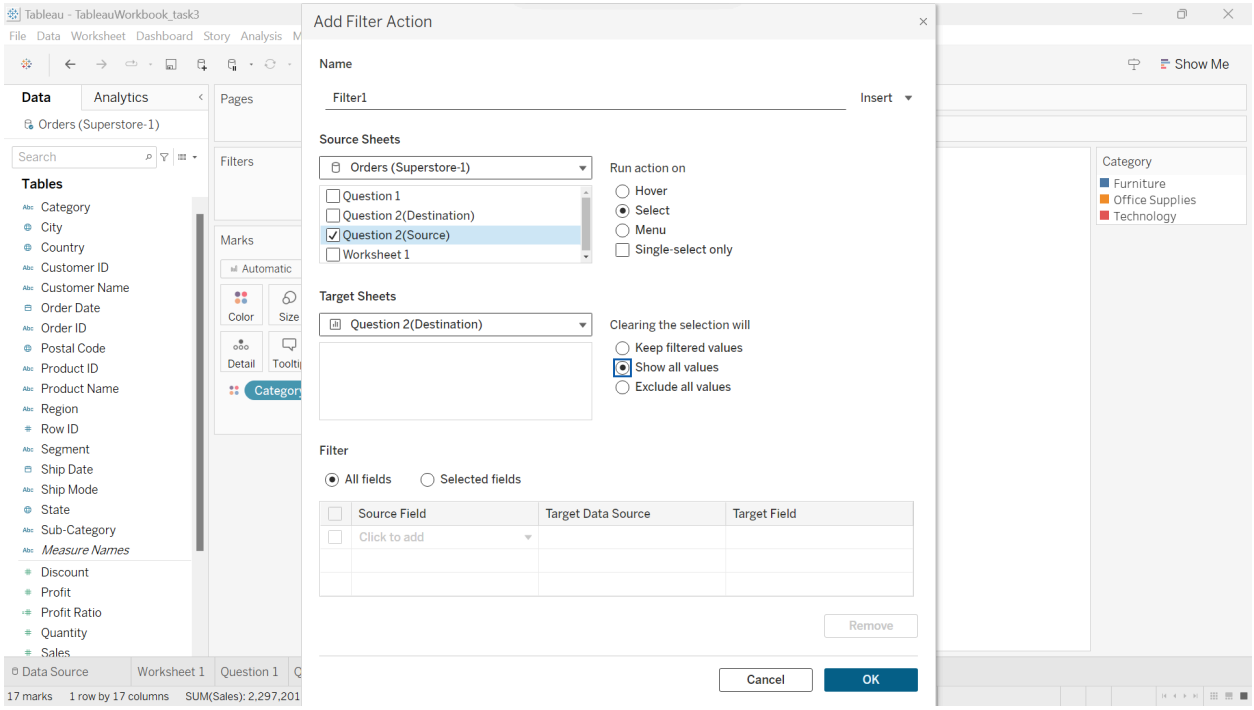
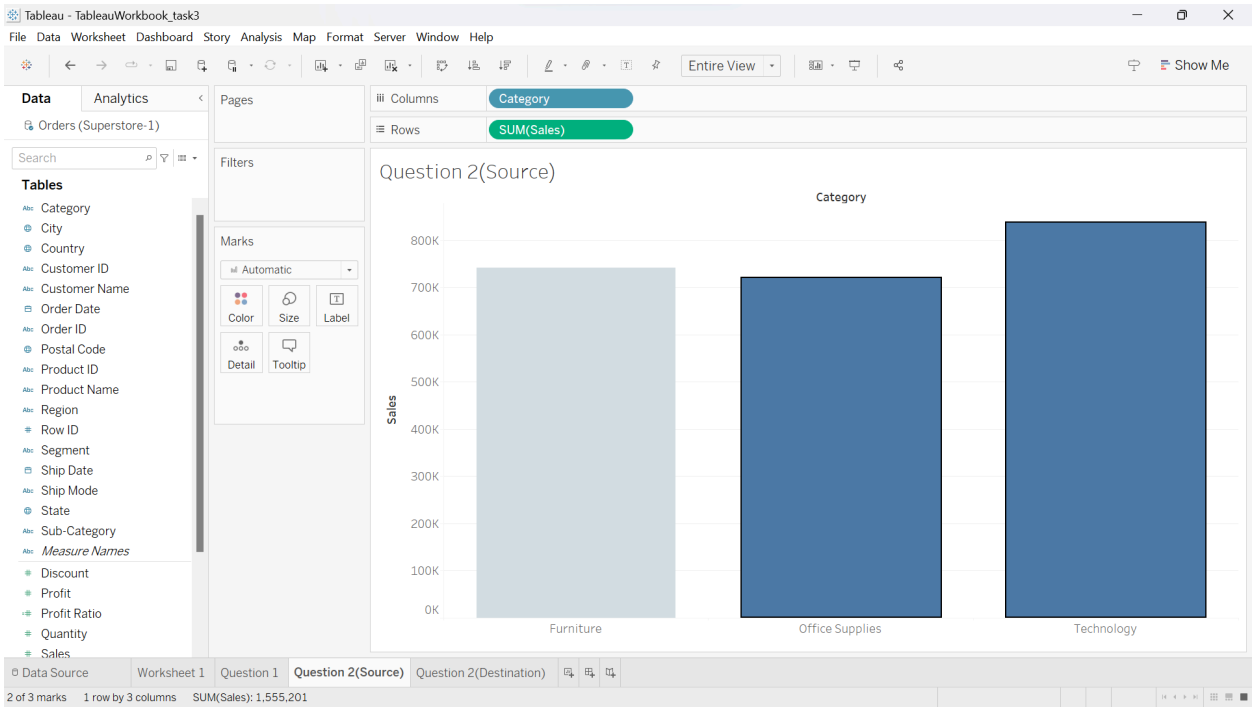


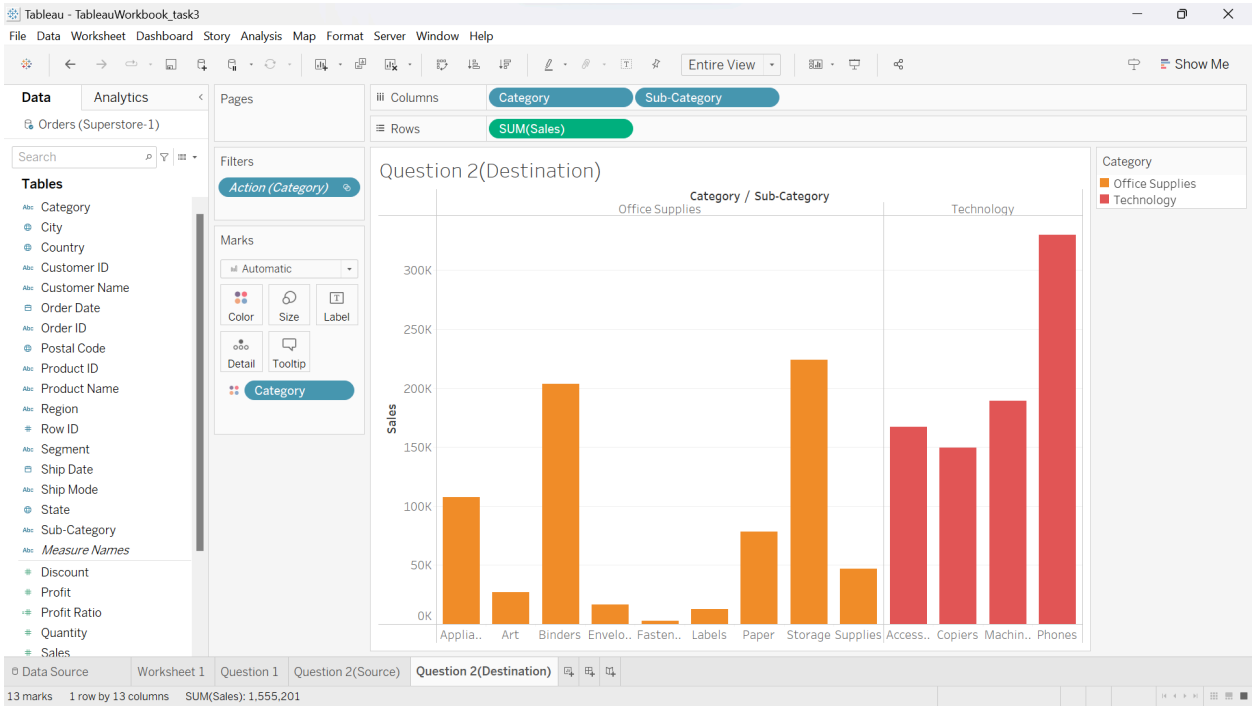
Tableau - TableauWorkbook_task3
Actions
Actions let you create interactive relationships between data, dashboard objects, other worksheets, and the web.
Show actions for
This workbook
This sheet
Name
Run On
Source
Fields
Add Action
Edit
Remove
Cancel
OK


Add Filter Action
Name
Filter1
Insert
Source Sheets
Orders (Superstore-1)
Question 1
Question 2(Destination)
Question 2(Source)
Worksheet 1
Run action on
Hover
Select
Menu
Single-select only
Target Sheets
Question 2(Destination)
Clearing the selection will
Keep filtered values
Show all values
Exclude all values
Filter
All fields
Selected fields
Source Field
Target Data Source
Target Field
Click to add
Remove
Cancel
OK


Add Filter Action
Name
Filter1
Insert
Source Sheets
Orders (Superstore-1)
Question 1
Question 2(Destination)
Question 2(Source)
Worksheet 1
Run action on
Hover
Select
Menu
Single-select only
Target Sheets
Question 2(Destination)
Clearing the selection will
Keep filtered values
Show all values
Exclude all values
Filter
All fields
Selected fields
Source Field
Target Data Source
Target Field
Click to add
Remove
Cancel
OK

4.



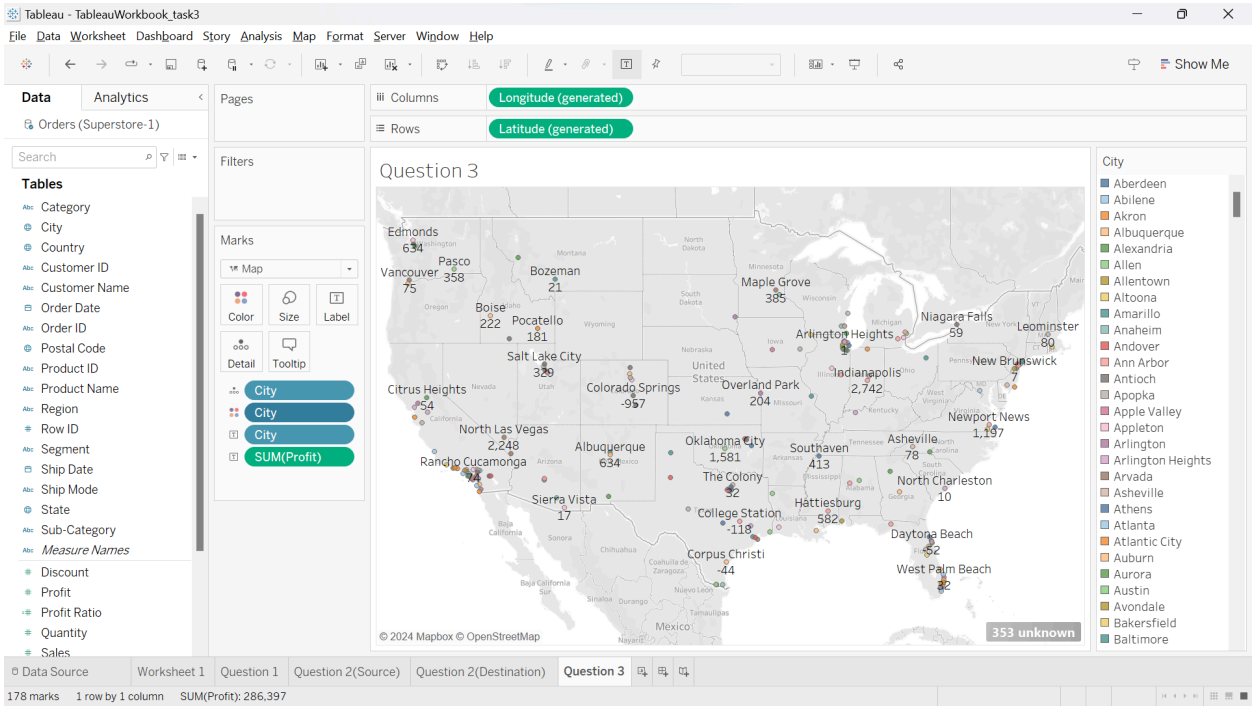


Explanation: I created two worksheets for this task. The source worksheet is used to identify the sales of each category, while the destination worksheet is

used to identify the sales of categories and subcategories. To connect both worksheets, I used the action feature that performs an action when a selection is made. Using the control key, I selected the Office Supplies and Technology categories in the source worksheet. As a result, only the subcategories of Office Supplies and Technology are visible in the destination worksheet.

Question 3:

1.



2.

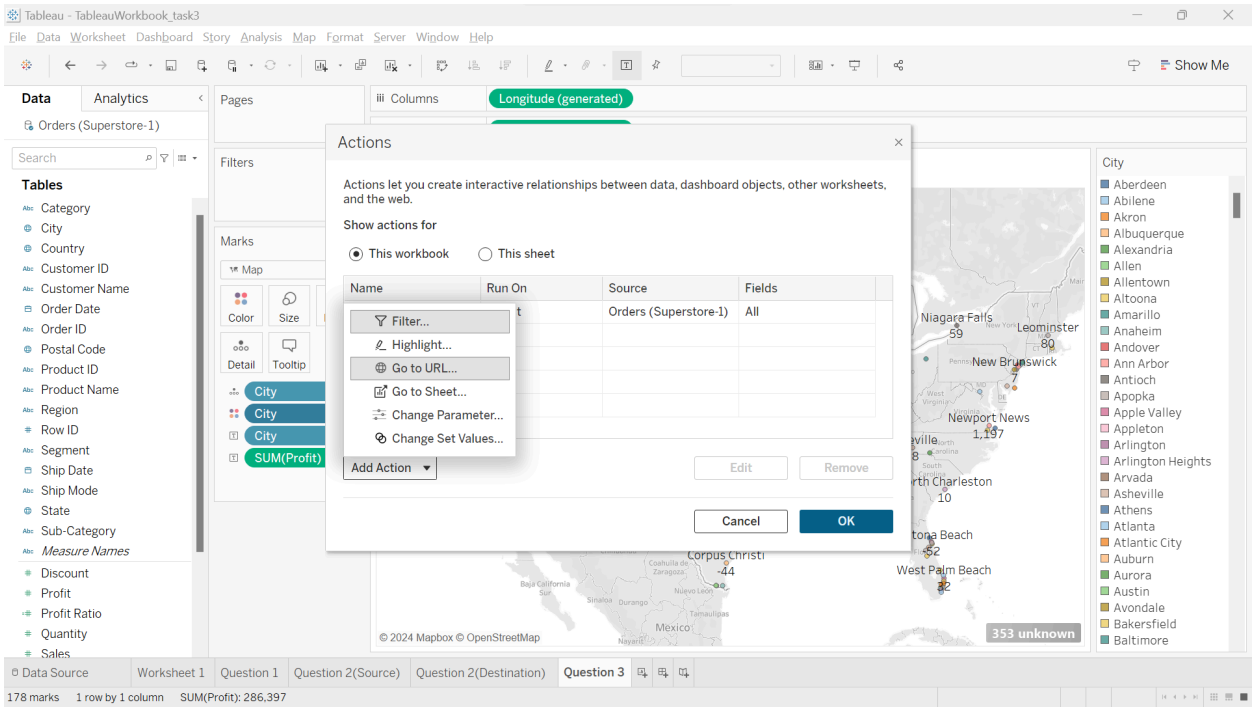


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Columns
Longitude (generated)
Filters
Marks
Map
Color
Size
Detail
Tooltip
City
City
City
SUM(Profit)
Actions
Actions let you create interactive relationships between data, dashboard objects, other worksheets, and the web.
Show actions for
This workbook
This sheet
Name
Run On
Source
Fields
Orders (Superstore-1)
All
Filter...
Highlight...
Go to URL...
Go to Sheet...
Change Parameter...
Change Set Values...
Add Action
Edit
Remove
Cancel
OK
City
Aberdeen
Abilene
Akron
Albuquerque
Alexandria
Allen
Allentown
Altoona
Amarillo
Anaheim
Andover
Ann Arbor
Antioch
Apopka
Apple Valley
Appleton
Arlington
Arlington Heights
Arvada
Asheville
Athens
Atlanta
Atlantic City
Auburn
Aurora
Austin
Avondale
Bakersfield
Baltimore
Niagara Falls
Leominster
New Brunswick
Newport News
Charleston
West Palm Beach
Corpus Christi
Mexico
© 2024 Mapbox © OpenStreetMap
353 unknown
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
178 marks
1 row by 1 column
SUM(Profit): 286,397

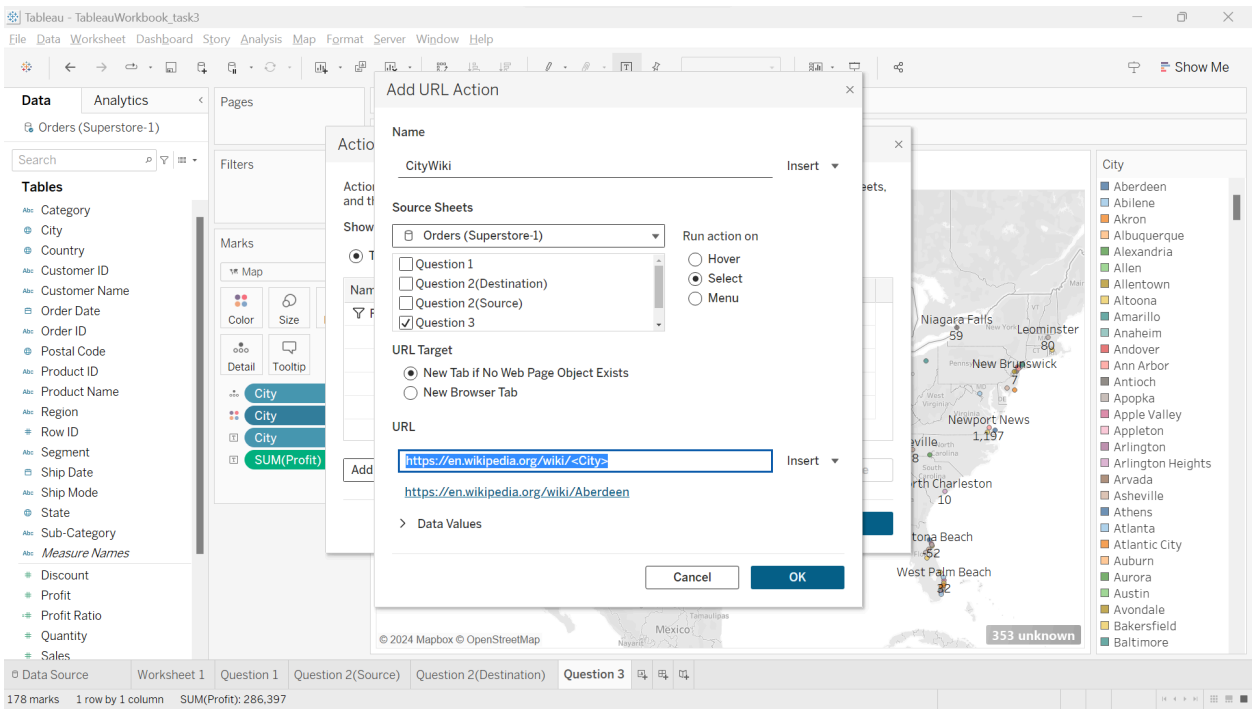
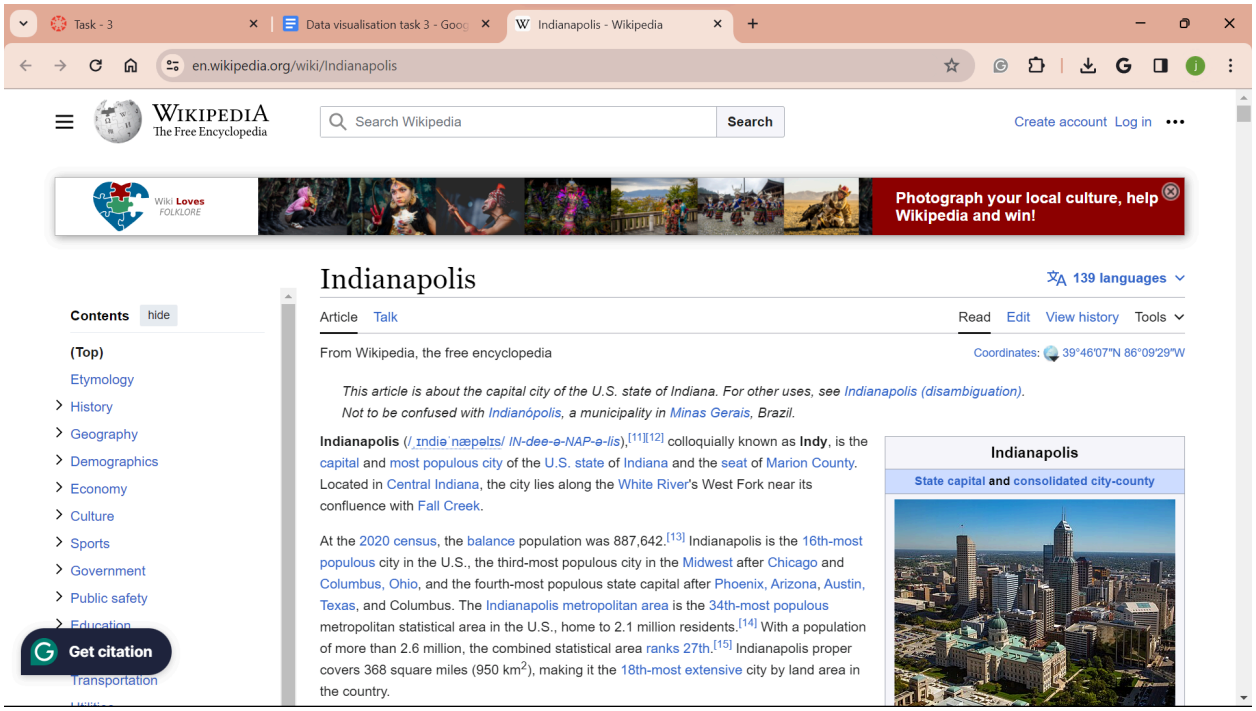
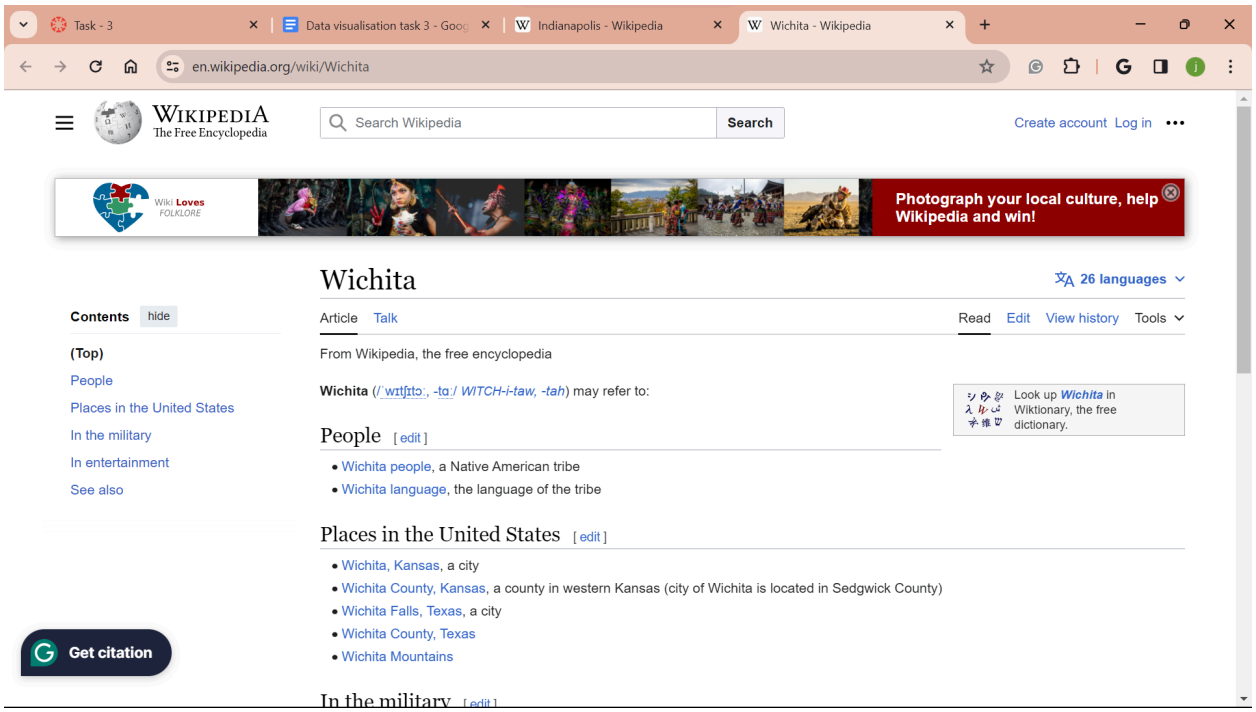


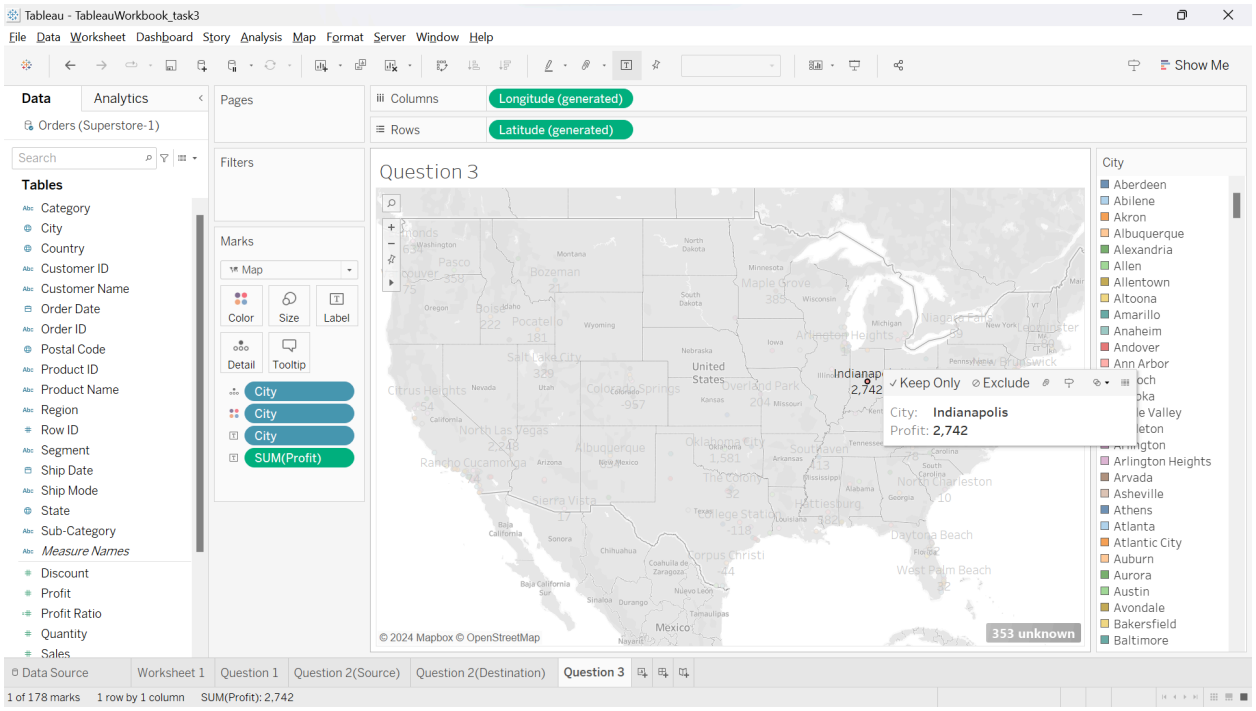
Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Pages
Filters
Marks
Map
Color
Size
Detail
Tooltip
City
City
City
SUM(Profit)
Add URL Action
Name
CityWiki
Insert
Source Sheets
Orders (Superstore-1)
Question 1
Question 2(Destination)
Question 2(Source)
Question 3
Run action on
Hover
Select
Menu
URL Target
New Tab if No Web Page Object Exists
New Browser Tab
URL
https://en.wikipedia.org/wiki/<City>
Insert
https://en.wikipedia.org/wiki/Aberdeen
Data Values
Cancel
OK
City
Aberdeen
Abilene
Akron
Albuquerque
Alexandria
Allen
Allentown
Altoona
Amarillo
Anaheim
Andover
Ann Arbor
Antioch
Apopka
Apple Valley
Appleton
Arlington
Arlington Heights
Arvada
Asheville
Athens
Atlanta
Atlantic City
Auburn
Aurora
Austin
Avondale
Bakersfield
Baltimore
Niagara Falls
Leominster
New Brunswick
Newport News
Charleston
West Palm Beach
Mexico
© 2024 Mapbox © OpenStreetMap
353 unknown
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
178 marks
1 row by 1 column
SUM(Profit): 286,397

3.

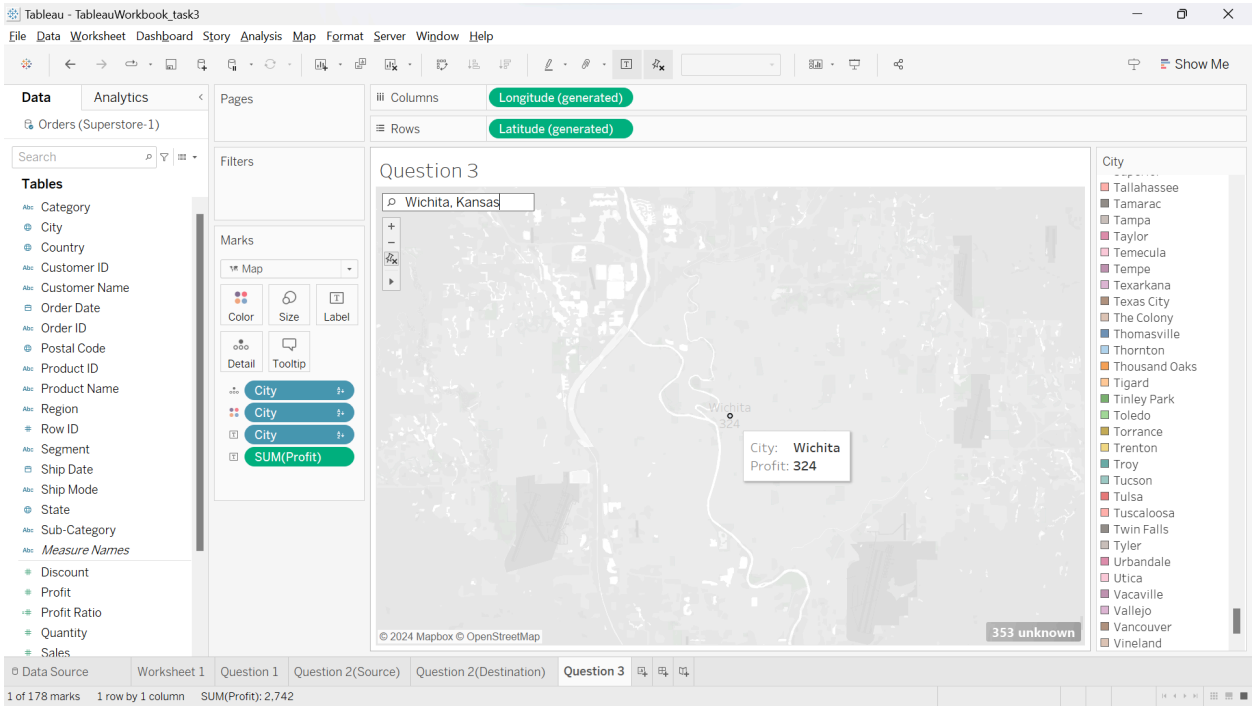

Task - 3
Data visualisation task 3 - Goog
Indianapolis - Wikipedia
en.wikipedia.org/wiki/Indianapolis
WIKIPEDIA
The Free Encyclopedia
Search Wikipedia
Search
Create account
Log in
Wiki Loves FOLKLORE
Photograph your local culture, help Wikipedia and win!
Indianapolis
139 languages
Contents
hide
(Top)
Etymology
History
Geography
Demographics
Economy
Culture
Sports
Government
Public safety
Education
Transportation
Article
Talk
Read
Edit
View history
Tools
From Wikipedia, the free encyclopedia
Coordinates: 39°46'07"N 86°09'29"W
This article is about the capital city of the U.S. state of Indiana. For other uses, see Indianapolis (disambiguation).
Not to be confused with Indianópolis, a municipality in Minas Gerais, Brazil.
Indianapolis (/ˌɪndiəˈnæpəlɪs/ IN-dee-ə-NAP-ə-lis),[11][12] colloquially known as Indy, is the capital and most populous city of the U.S. state of Indiana and the seat of Marion County. Located in Central Indiana, the city lies along the White River's West Fork near its confluence with Fall Creek.
At the 2020 census, the balance population was 887,642.[13] Indianapolis is the 16th-most populous city in the U.S., the third-most populous city in the Midwest after Chicago and Columbus, Ohio, and the fourth-most populous state capital after Phoenix, Arizona, Austin, Texas, and Columbus. The Indianapolis metropolitan area is the 34th-most populous metropolitan statistical area in the U.S., home to 2.1 million residents.[14] With a population of more than 2.6 million, the combined statistical area ranks 27th.[15] Indianapolis proper covers 368 square miles (950 km²), making it the 18th-most extensive city by land area in the country.
Indianapolis
State capital and consolidated city-county
Get citation


Task - 3
Data visualisation task 3 - Goog
Indianapolis - Wikipedia
Wichita - Wikipedia
en.wikipedia.org/wiki/Wichita
WIKIPEDIA
The Free Encyclopedia
Search Wikipedia
Search
Create account
Log in
Wiki Loves FOLKLORE
Photograph your local culture, help Wikipedia and win!
Wichita
26 languages
Contents
hide
(Top)
People
Places in the United States
In the military
In entertainment
See also
Article
Talk
Read
Edit
View history
Tools
From Wikipedia, the free encyclopedia
Wichita (/ˈwɪtʃtɔː, -tɑː/ WITCH-i-taw, -tah) may refer to:
Look up Wichita in Wiktionary, the free dictionary.
People [edit]
Wichita people, a Native American tribe
Wichita language, the language of the tribe
Places in the United States [edit]
Wichita, Kansas, a city
Wichita County, Kansas, a county in western Kansas (city of Wichita is located in Sedgwick County)
Wichita Falls, Texas, a city
Wichita County, Texas
Wichita Mountains
In the military [edit]
Get citation

4. Profit gained is 2742



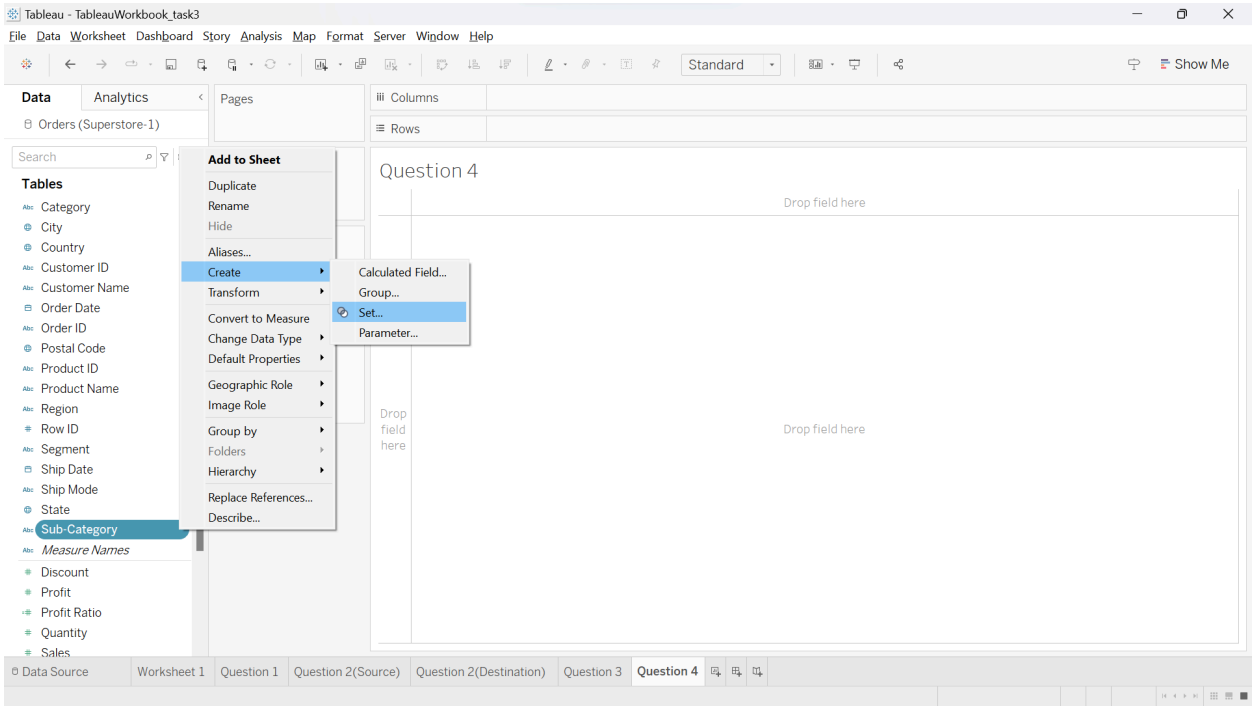
Profit gained by Wichita is 324



Explanation: I created a map-based visualization to understand the profits made by each city in the United States. From this task, I learned how to add URL actions to a worksheet.

Question 4:

1.



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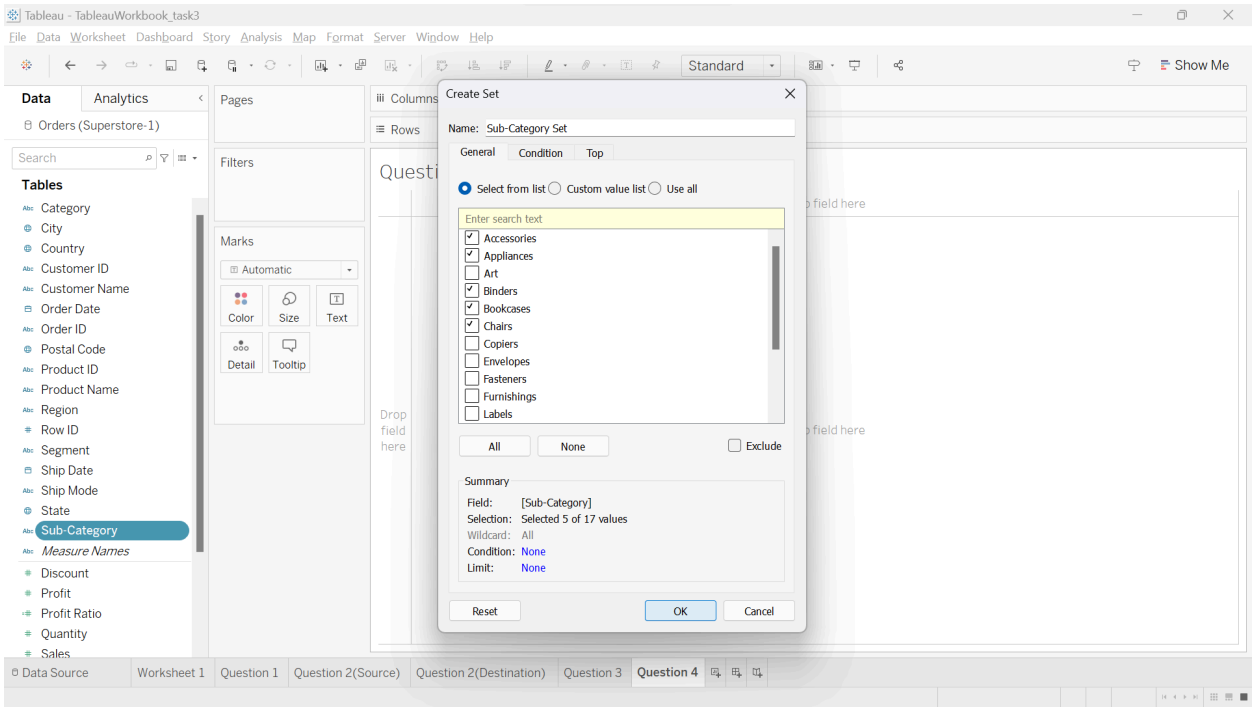
Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Create Set
Name: Sub-Category Set
General
Condition
Top
Select from list
Custom value list
Use all
Enter search text
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
All
None
Exclude
Summary
Field: [Sub-Category]
Selection: Selected 5 of 17 values
Wildcard: All
Condition: None
Limit: None
Reset
OK
Cancel
Drop field here
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4

3.

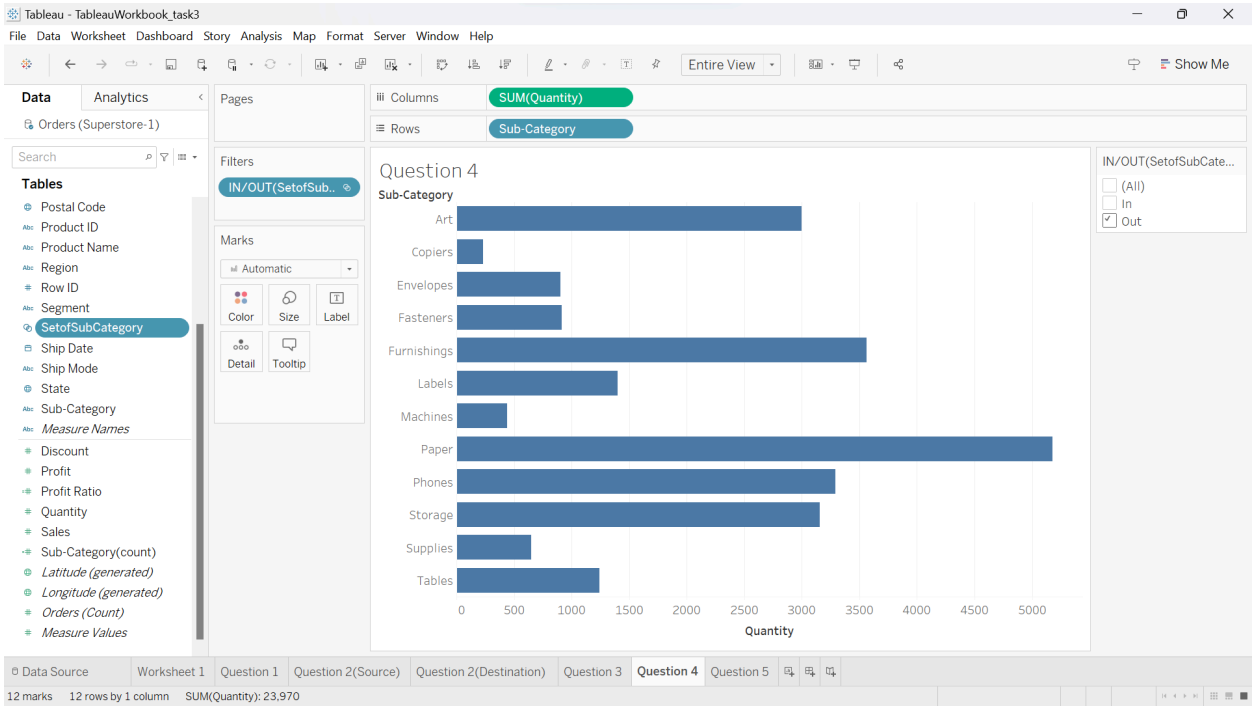
Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(Quantity)
Rows
Sub-Category
Question 4
Sub-Category
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Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
12 marks
12 rows by 1 column
SUM(Quantity): 23,970

4.

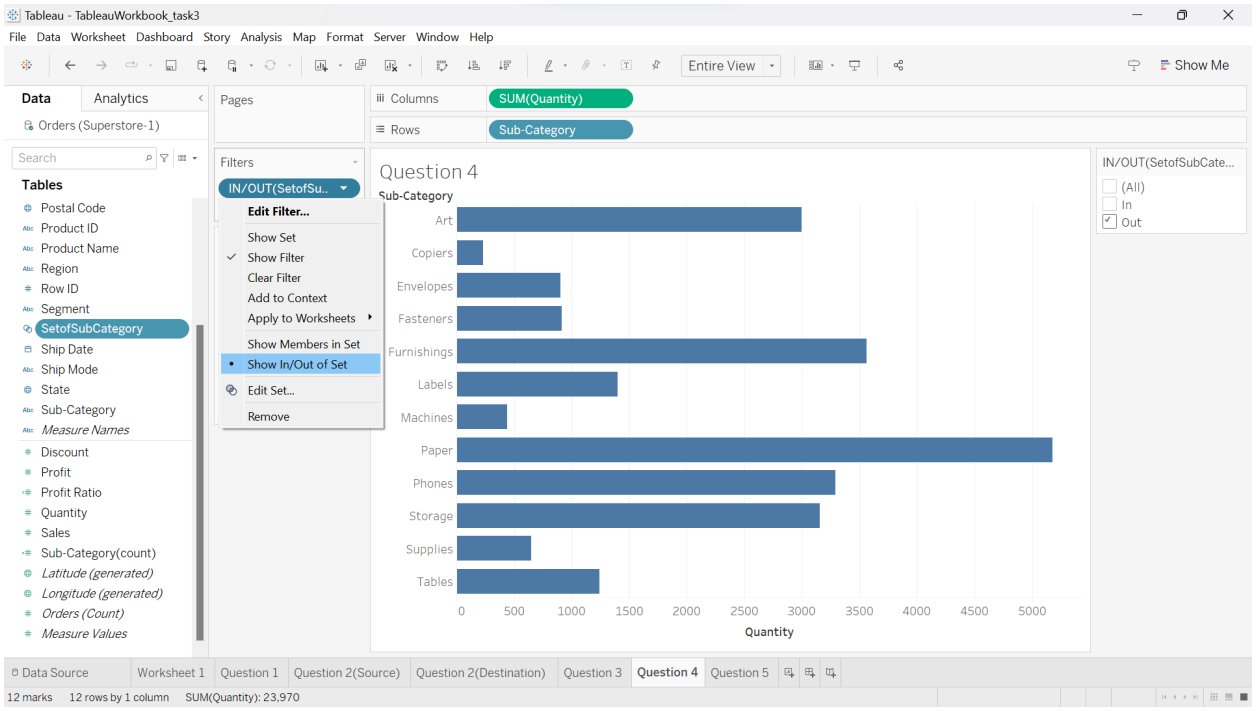


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Columns
SUM(Quantity)
Rows
Sub-Category
Filters
IN/OUT(SetofSu..
Edit Filter...
Show Set
Show Filter
Clear Filter
Add to Context
Apply to Worksheets
Show Members in Set
Show In/Out of Set
Edit Set...
Remove
Question 4
Sub-Category
Art
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
12 marks
12 rows by 1 column
SUM(Quantity): 23,970

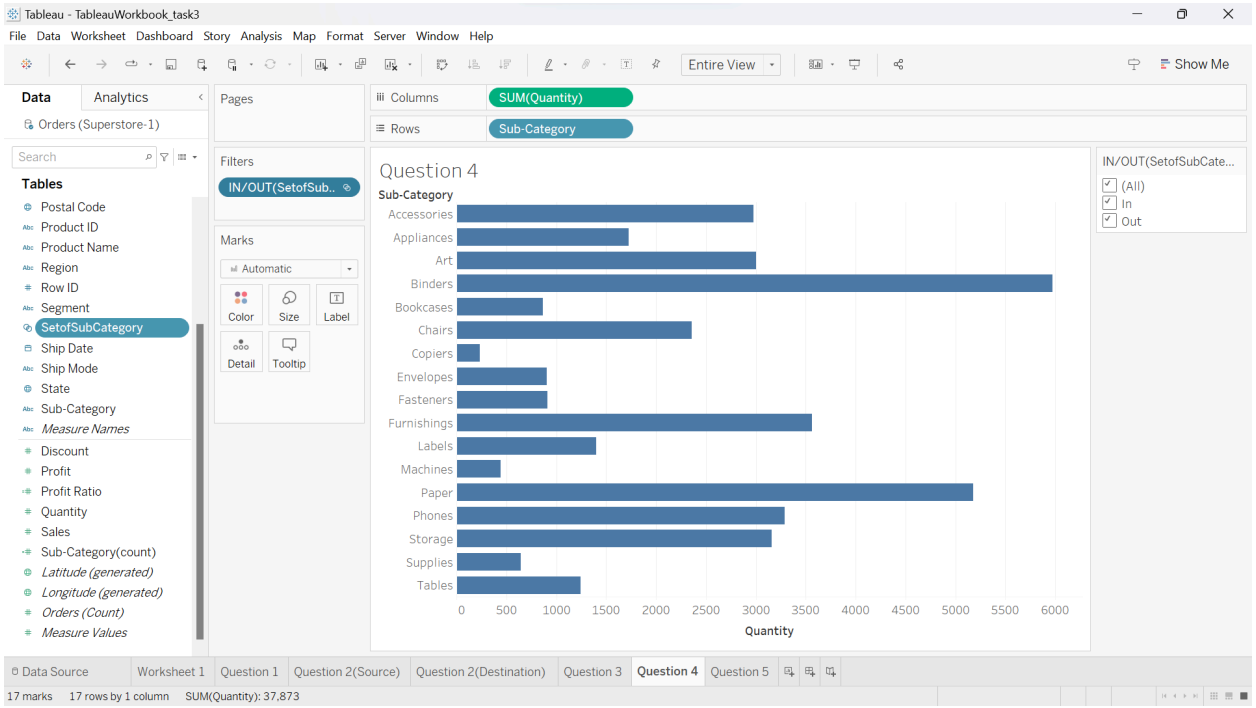


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Columns
SUM(Quantity)
Rows
Sub-Category
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Question 4
Sub-Category
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
17 marks
17 rows by 1 column
SUM(Quantity): 37,873

5.

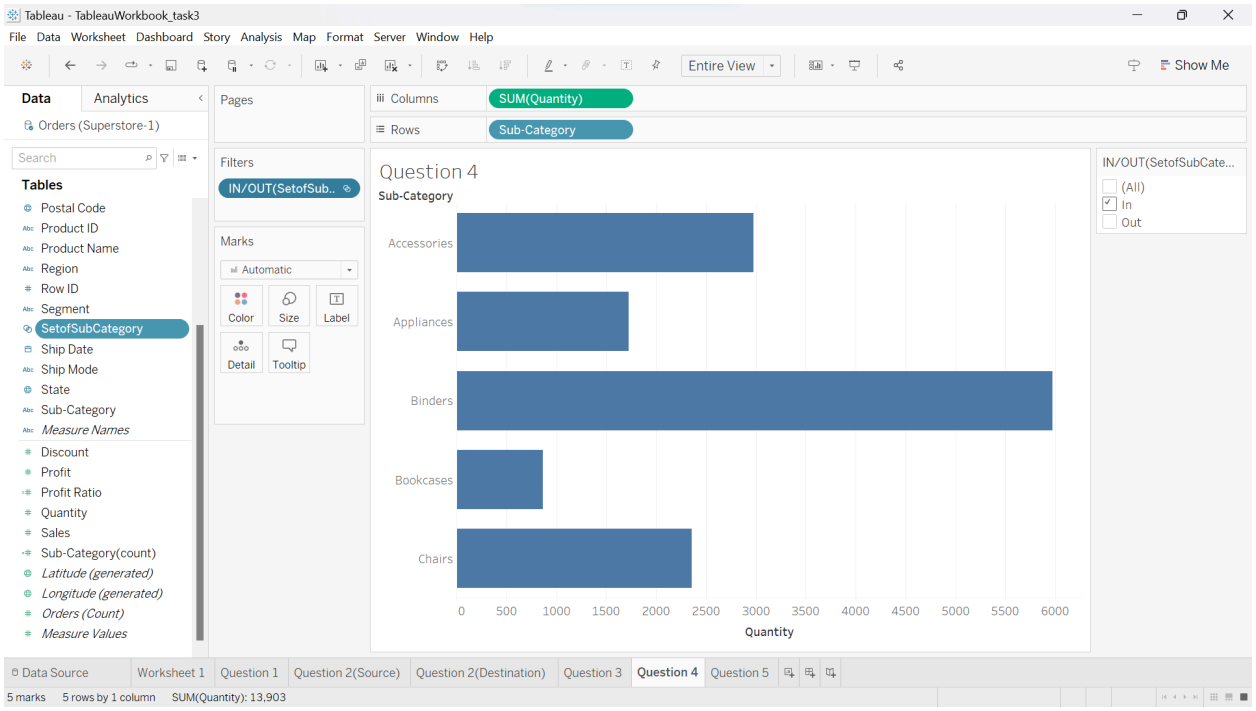


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(Quantity)
Rows
Sub-Category
Question 4
Sub-Category
Accessories
Appliances
Binders
Bookcases
Chairs
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
5 marks
5 rows by 1 column
SUM(Quantity): 13,903

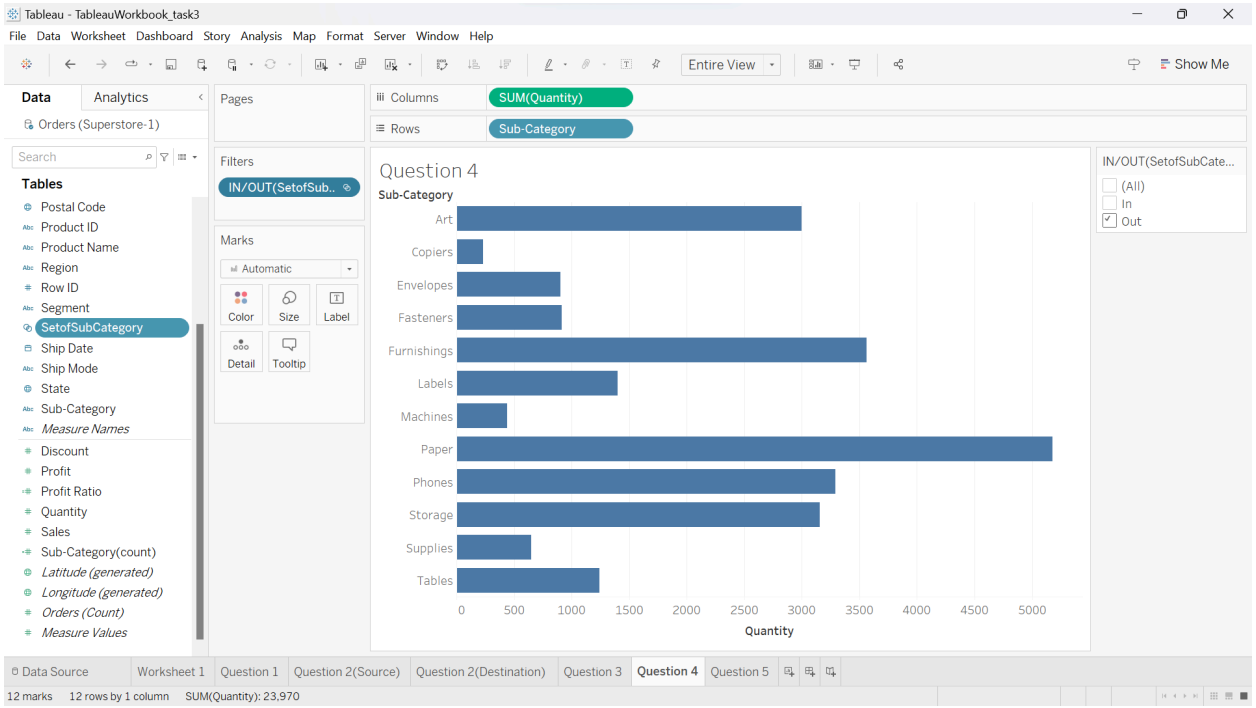


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(Quantity)
Rows
Sub-Category
Question 4
Sub-Category
Art
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
12 marks
12 rows by 1 column
SUM(Quantity): 23,970

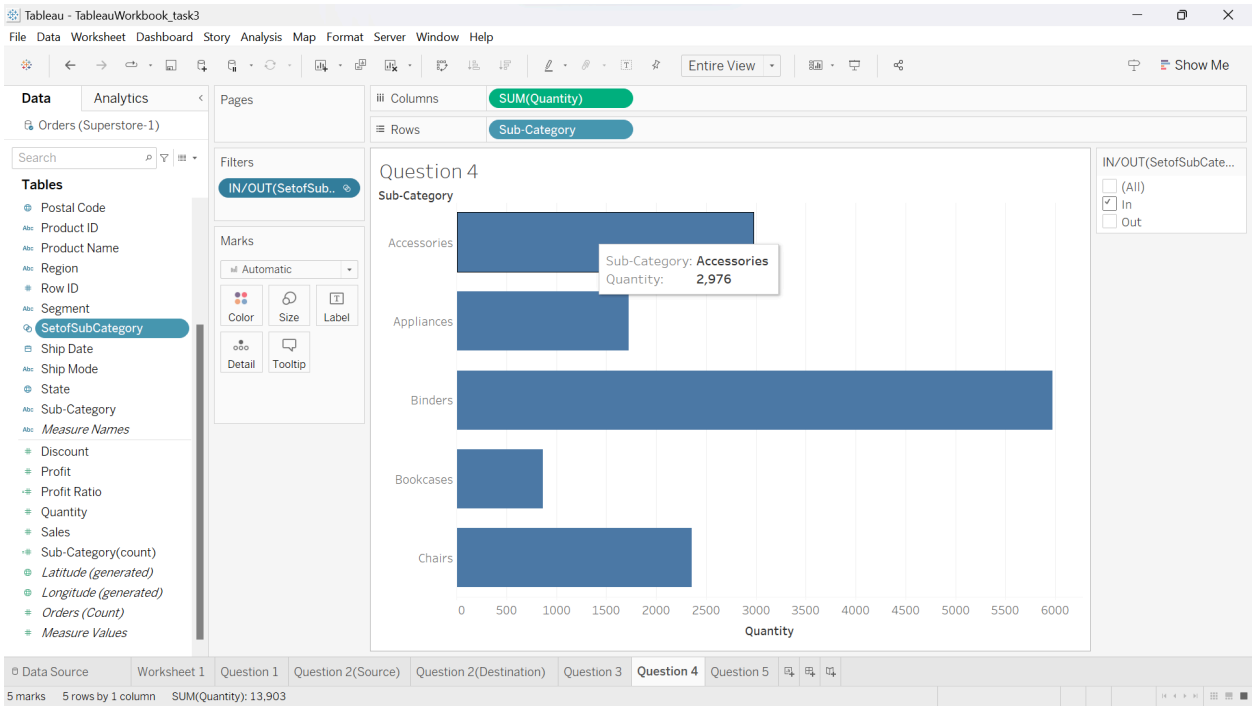


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(Quantity)
Rows
Sub-Category
Question 4
Sub-Category
Accessories
Appliances
Binders
Bookcases
Chairs
Sub-Category: Accessories
Quantity: 2,976
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
5 marks
5 rows by 1 column
SUM(Quantity): 13,903

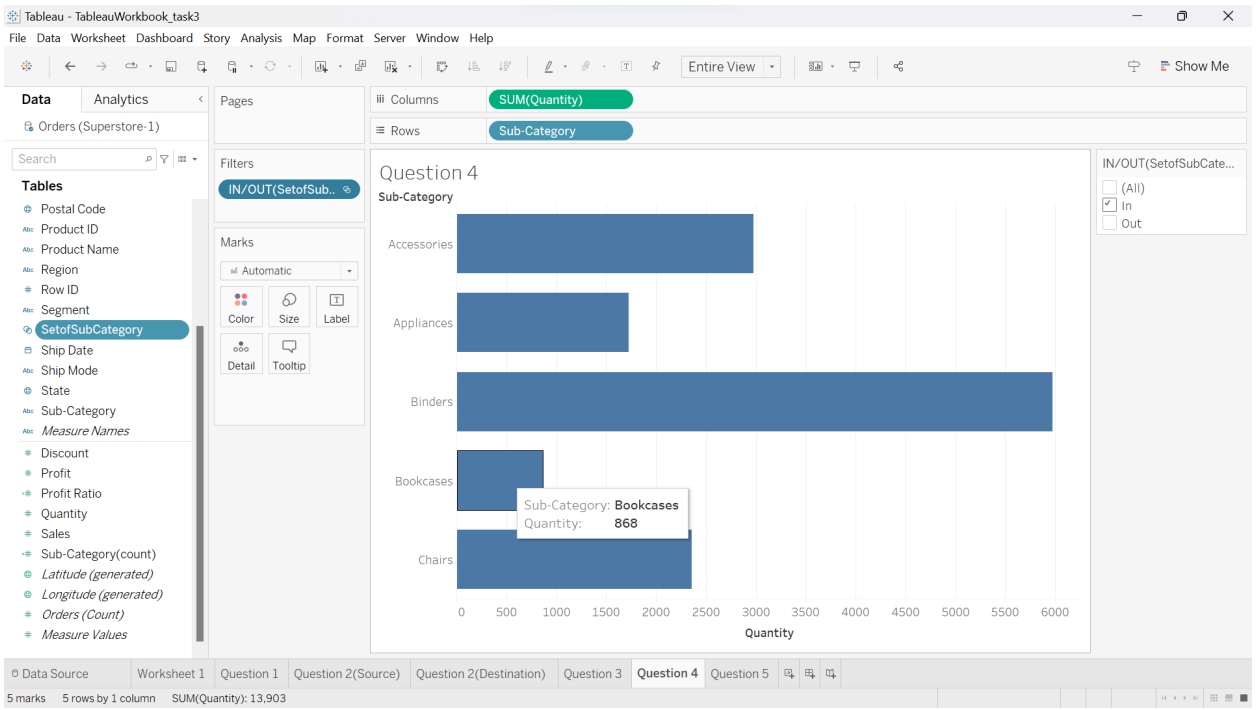
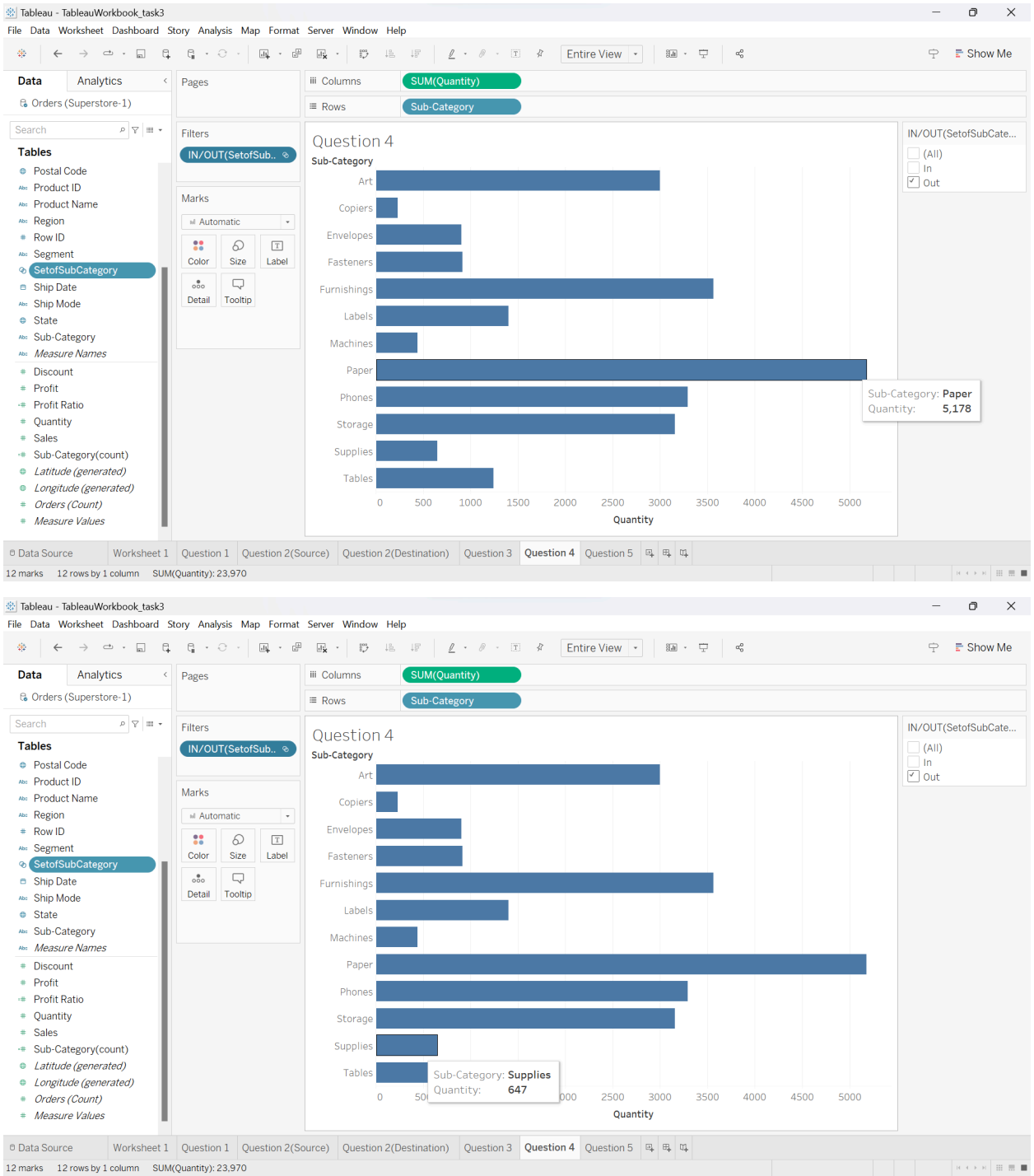


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Postal Code
Product ID
Product Name
Region
Row ID
Segment
SetofSubCategory
Ship Date
Ship Mode
State
Sub-Category
Measure Names
Discount
Profit
Profit Ratio
Quantity
Sales
Sub-Category(count)
Latitude (generated)
Longitude (generated)
Orders (Count)
Measure Values
Pages
Filters
IN/OUT(SetofSub..
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
SUM(Quantity)
Rows
Sub-Category
Question 4
Sub-Category
Accessories
Appliances
Binders
Bookcases
Chairs
Sub-Category: Bookcases
Quantity: 868
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Quantity
IN/OUT(SetofSubCate...
(All)
In
Out
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
5 marks
5 rows by 1 column
SUM(Quantity): 13,903

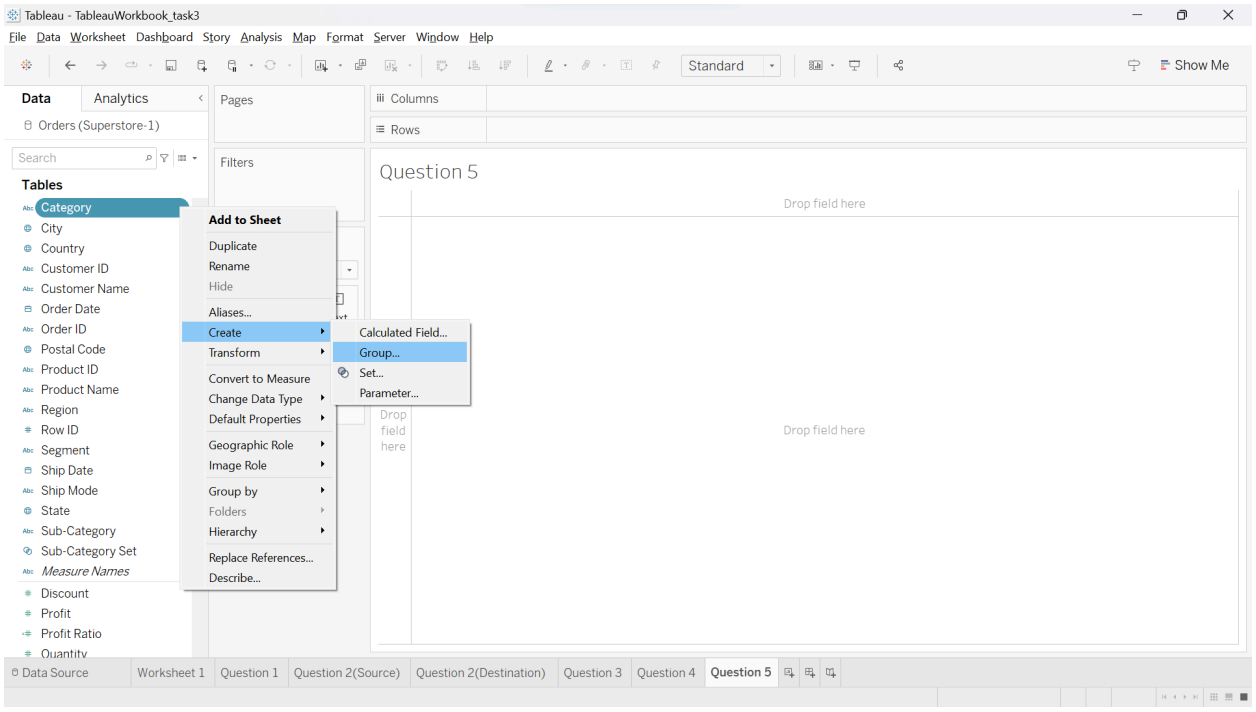


Explanation: I have created a set of subcategories with only a few categories. We can use the 'IN' option in filters to select the categories present in the set, and the 'OUT' option to select the categories not present in the set. Additionally, we can display all the items. The subcategories 'Accessories' and 'Bookcases' are included in the SetofSubCategory, with quantities of

2976 and 878 respectively. 'Bookcases' has the lowest quantity. 'Paper' and 'Supplies' are subcategories that are not included in the set, with quantities of 5178 and 647 respectively. 'Paper' has the highest quantity out of the set, and 'Supplies' has the lowest.

Question 5:

1.



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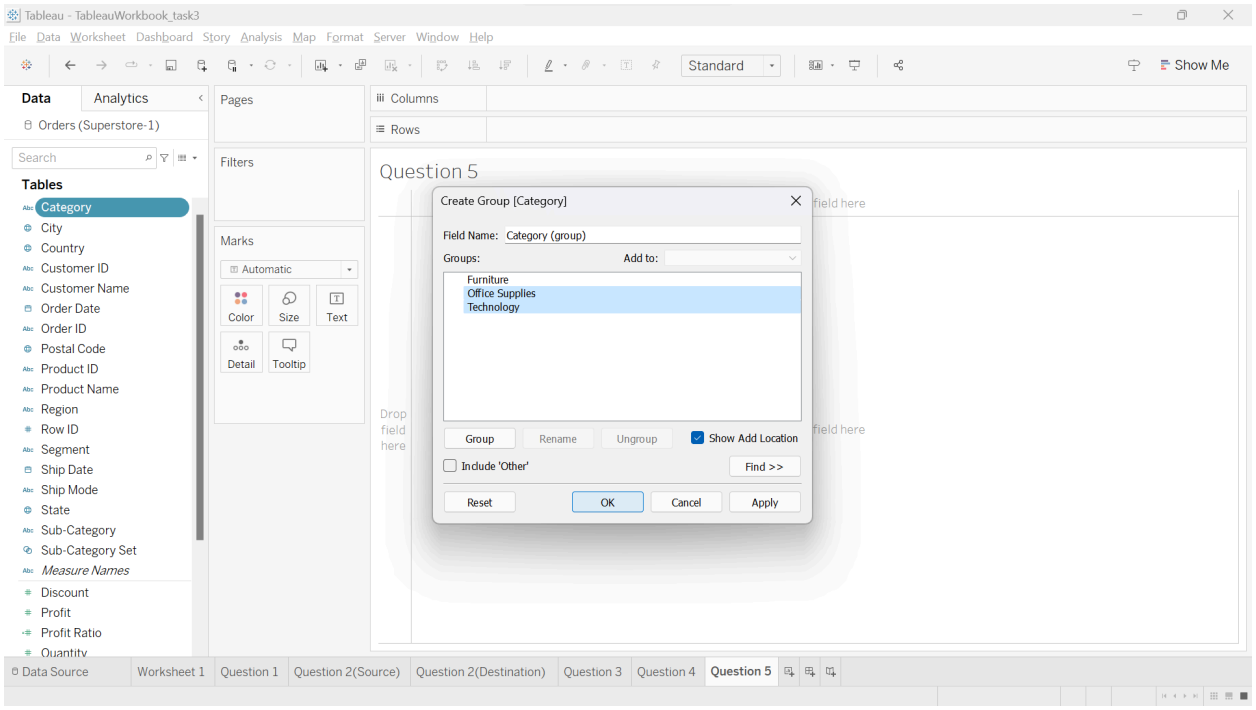


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Sub-Category Set
Measure Names
Discount
Profit
Profit Ratio
Quantity
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Question 5
Create Group [Category]
Field Name: Category (group)
Groups:
Add to:
Furniture
Office Supplies
Technology
Group
Rename
Ungroup
Show Add Location
Include 'Other'
Find >>
Reset
OK
Cancel
Apply
Drop field here
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5

3.

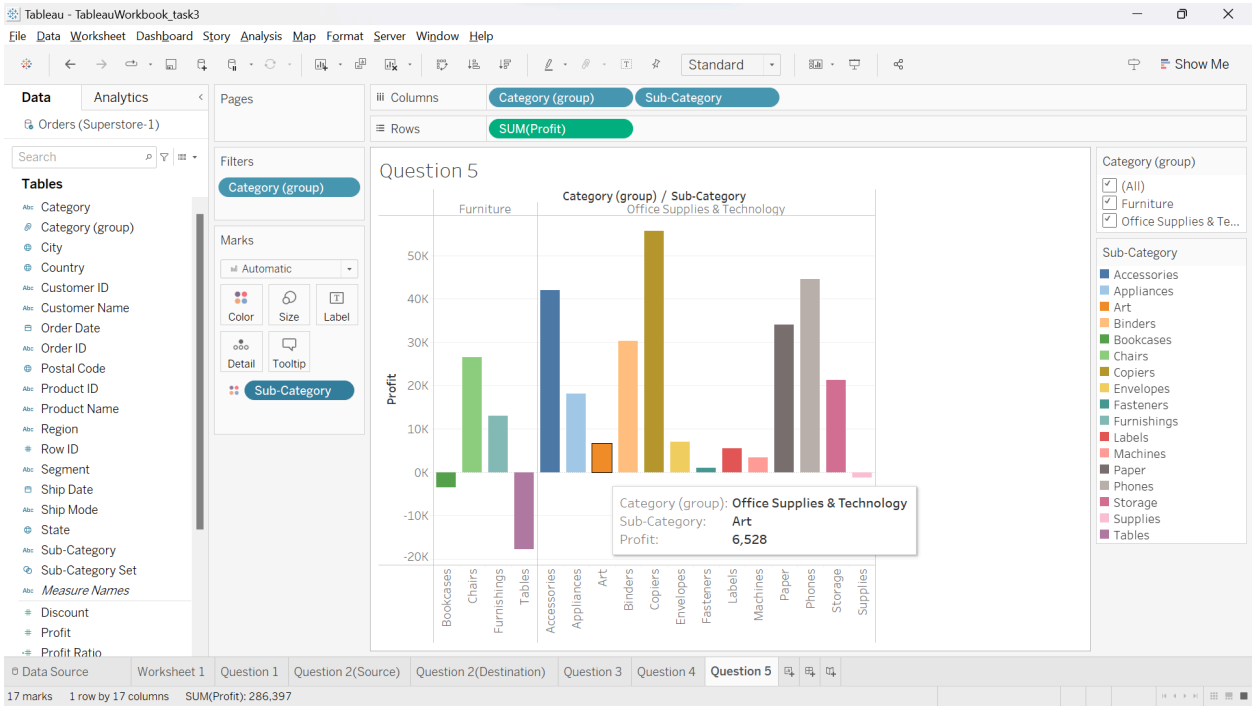
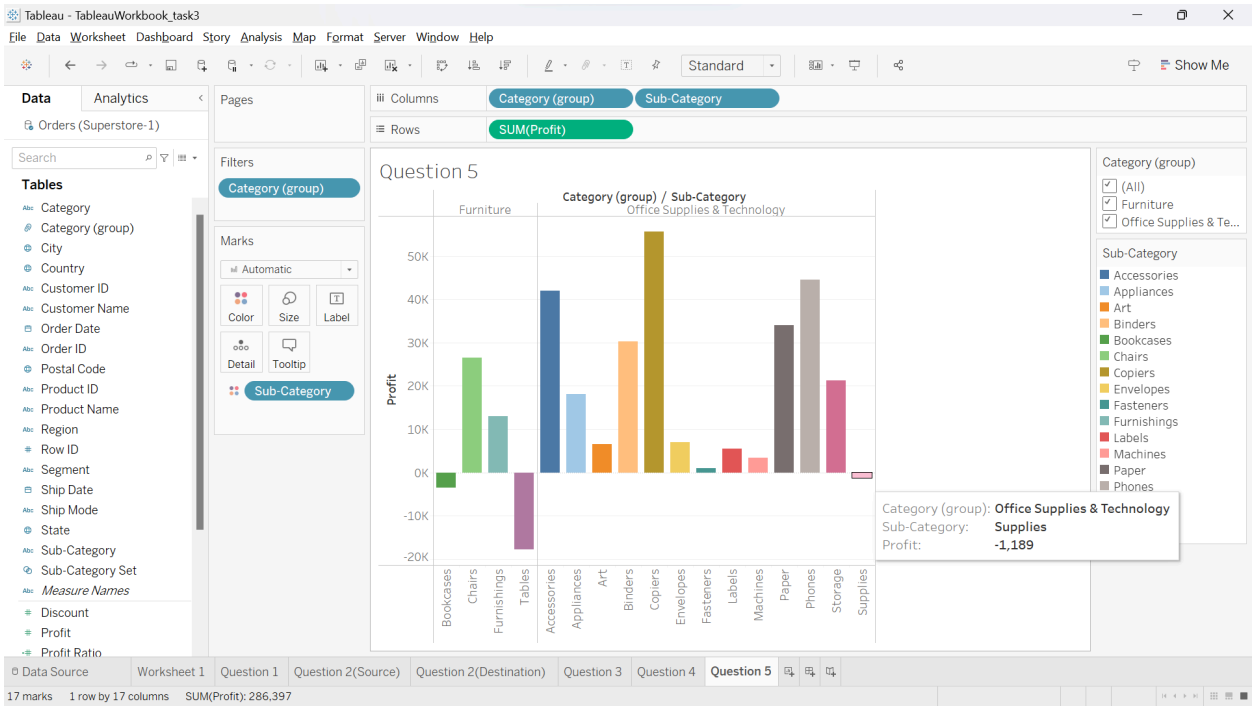
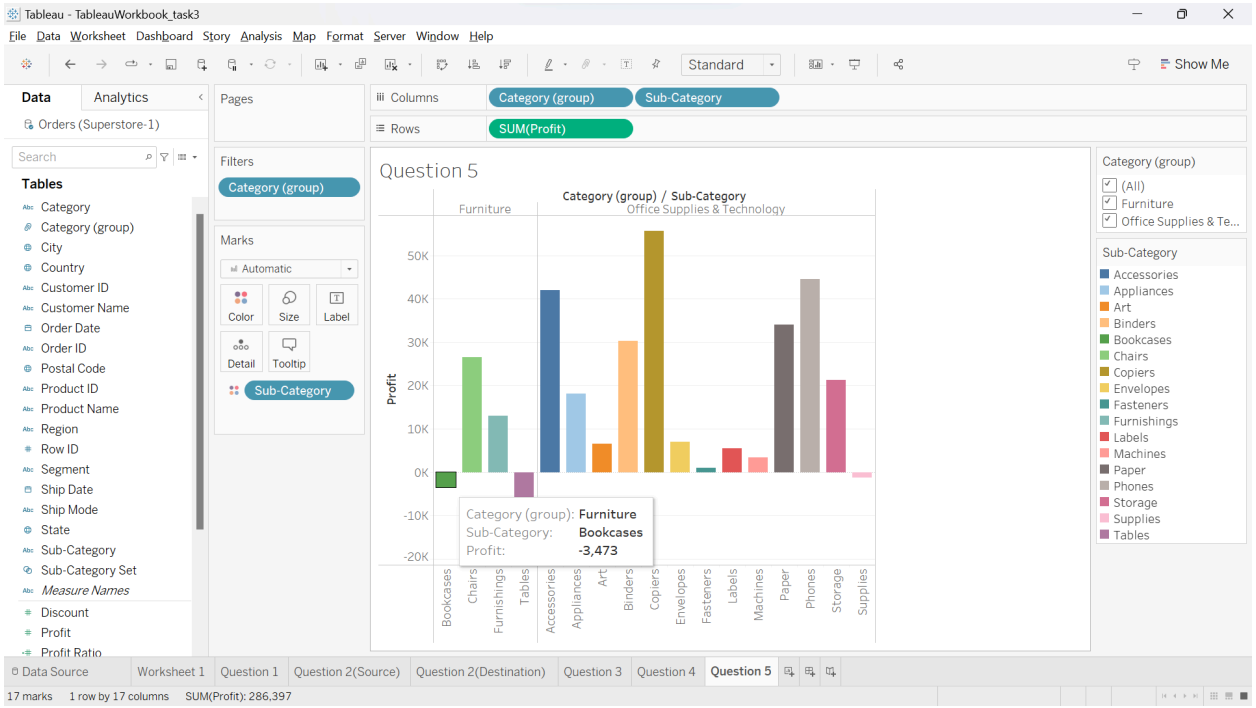


Tableau - TableauWorkbook_task3
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Orders (Superstore-1)
Search
Tables
Category
Category (group)
City
Country
Customer ID
Customer Name
Order Date
Order ID
Postal Code
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State
Sub-Category
Sub-Category Set
Measure Names
Discount
Profit
Profit Ratio
Pages
Filters
Category (group)
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Sub-Category
Columns
Category (group)
Sub-Category
Rows
SUM(Profit)
Question 5
Category (group) / Sub-Category
Furniture
Office Supplies & Technology
Profit
50K
40K
30K
20K
10K
0K
-10K
-20K
Bookcases
Chairs
Furnishings
Tables
Accessories
Appliances
Art
Binders
Copiers
Envelopes
Fasteners
Labels
Machines
Paper
Phones
Storage
Supplies
Category (group): Office Supplies & Technology
Sub-Category: Art
Profit: 6,528
Category (group)
(All)
Furniture
Office Supplies & Te...
Sub-Category
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Copiers
Envelopes
Fasteners
Furnishings
Labels
Machines
Paper
Phones
Storage
Supplies
Tables
Data Source
Worksheet 1
Question 1
Question 2(Source)
Question 2(Destination)
Question 3
Question 4
Question 5
17 marks
1 row by 17 columns
SUM(Profit): 286,397

4.





Explanation: I grouped two categories, namely, Office Supplies and Technology, into one category. Looking at the horizontal graph, the Art subcategory in this group has a profit of 6528. However, the Supplies

subcategory does not make any profit, much like the Bookcases subcategory in the Furniture category.