



BATCH :
LESSON :
DATE :
SUBJECT :

TABLEAU 2024

Tableau ENG

May 29.2024

Share – Filters

Group- Hierarchy

PLEASE USE **LMS** TO JOIN THE ZOOM
MEETINGS





Tableau - 2



Where we left on lecture 2



Marks

Automatic

Color

Size

Label

Detail

Tooltip

Tableau - Data Visualization with Tableau Course

Data Analytics Pages

Orders (Sample - Superstore)

Search

Tables

All: Category, City, Country-Region, Customer ID, Customer Name, Order Date, Order ID, Product ID, Product Name, Region, Segment, Ship Date, Ship Mode, State, Sub-Category, All Names, Discount, Profit, Quantity, Sales, LeftJoin(generated), OrderCount, Measure Values

Marks

Bar

Color

Size

Label

Detail

Tooltip

Filters

Sheet 3

Category

Sales

Furniture Office Technology

836.154

719.047

742.000

800K

600K

400K

200K

0K

Sheet 3

Category

836.154

719.047

742.000

800K

600K

400K

200K

0K

Sheet 3

Category

836.154

719.047

742.000

800K

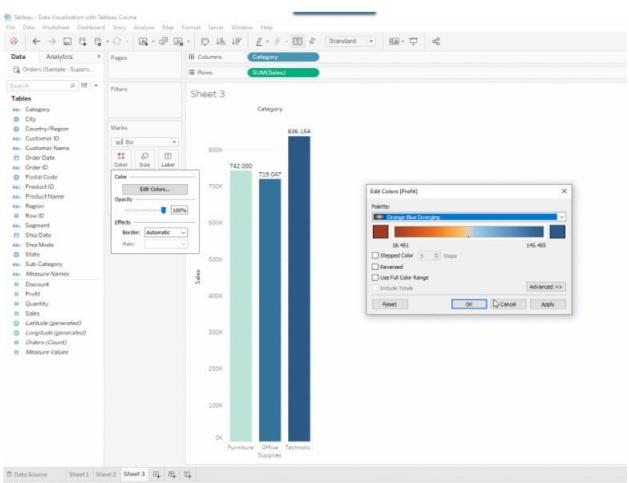
600K

400K

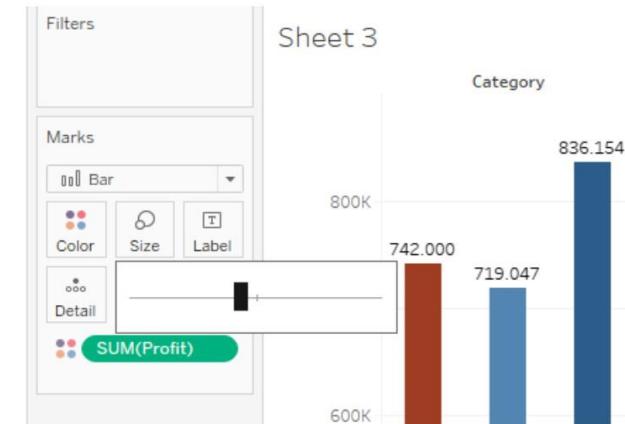
200K

0K

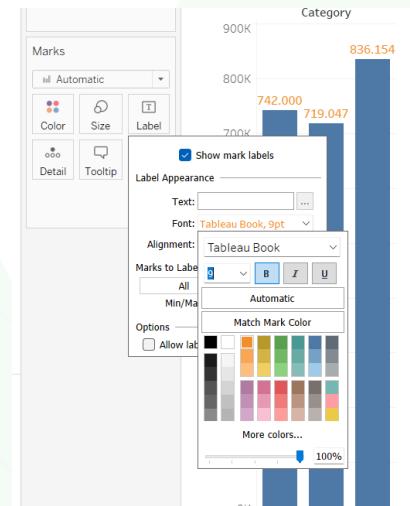
Color Card



Size Card



Label Card





Color Palette

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Data Analytics < Pages iii Columns Sub-Category
Rows SUM(Profit)

Sample - Superstore (3)

Search

Tables

- Abc Category
- ⊕ City
- ⊕ Country
- Abc Customer ID
- Abc Customer Name
- ⊖ Order Date
- Abc Order ID
- ⊕ Postal Code
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- ⊖ Ship Date
- Abc Ship Mode
- ⊕ State
- Abc Sub-Category
- Abc Measure Names
- # Discount

Marks

- Automatic
- Color
- Size
- Label
- Detail
- Tooltip

Sheet 6 (2)

Sub-Category

Profit

Sheet 6 (2) (SUM(Profit))

Sub-Category

Profit

Sheet 4 Sheet 5 Sheet 6 Sheet 6 (2)

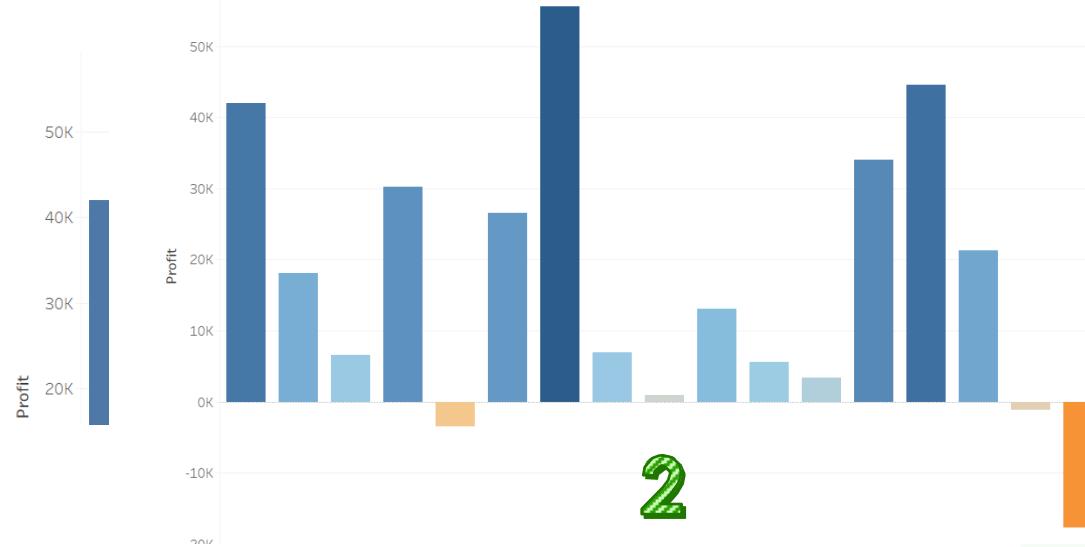


Color Palette

Sheet 1

Marks

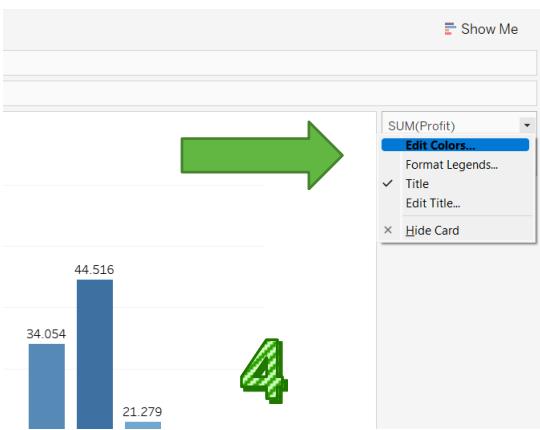
- Automatic
- SUM(Profit)** Color
- Size
- Label
- Detail
- Tooltip



2



3



4

Edit Colors [Profit]

Palette:

Automatic

-17.725 55.618

Stepped Color 5 Steps

Reversed

Use Full Color Range

Include Totals

[Advanced >>](#)

Reset OK Cancel Apply

5

Edit Colors [Profit]

Palette:

Custom Diverging

-55.618 55.618

Stepped Color 2 Steps

Reversed

Use Full Color Range

Include Totals

[Advanced](#)

Start: -17.725,4811

End: 55.617,8249

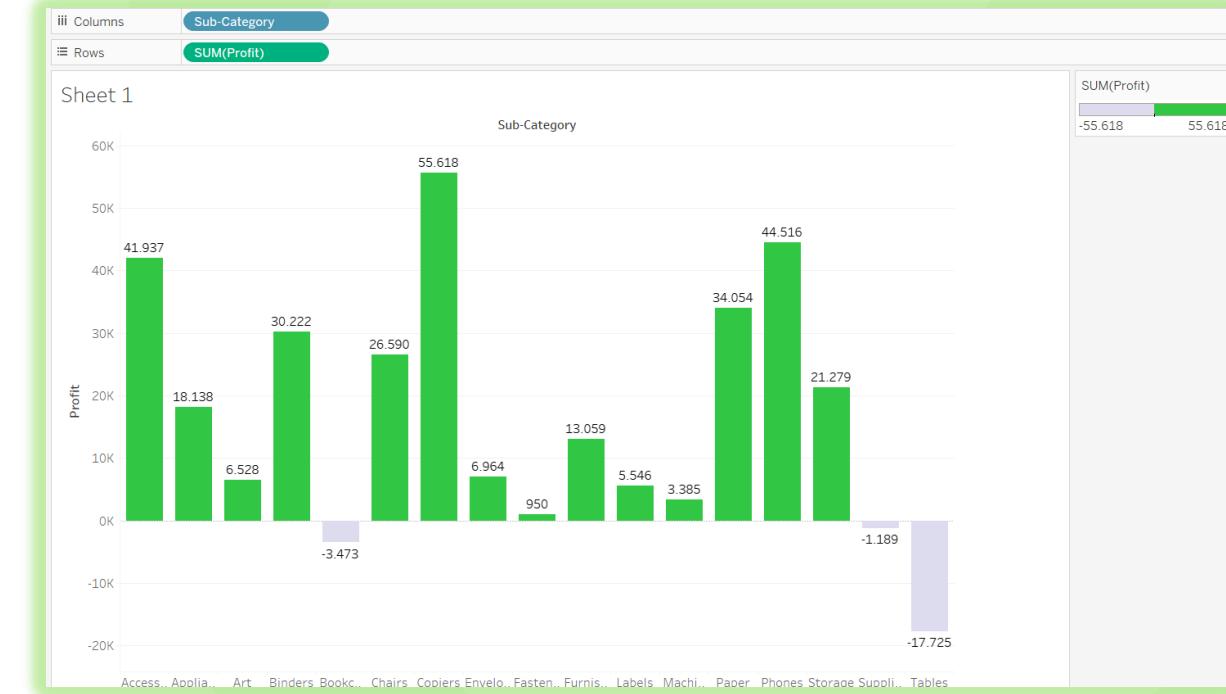
Center: 0

Reset OK Cancel Apply

6



Color Palette





Interaction

I have visualised profit and loss distribution based on the profit field.



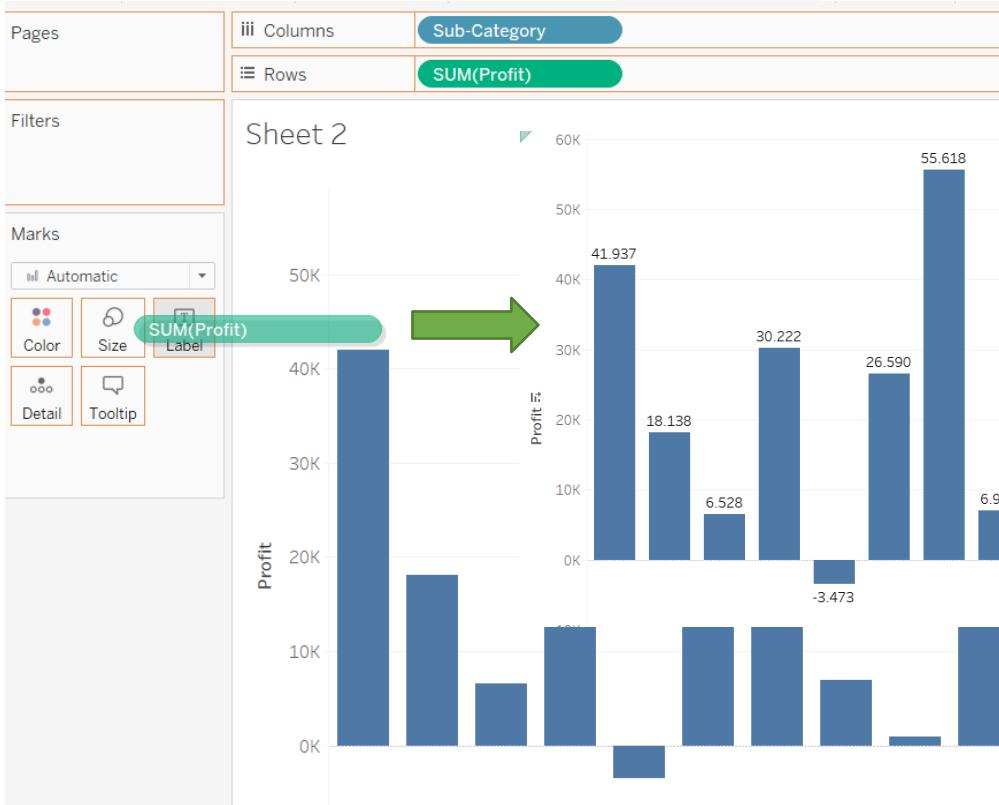
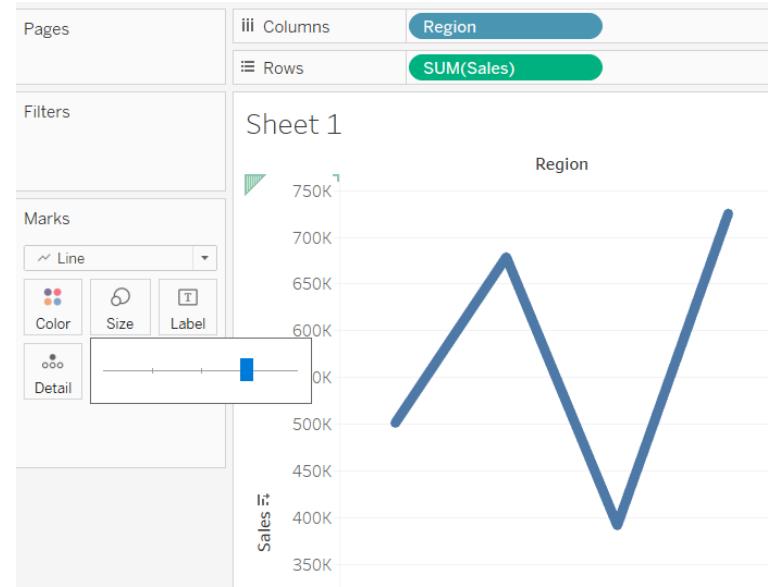


Question

- Draw 'sales by regions' graph and emphasize where we have sales less then 600K.

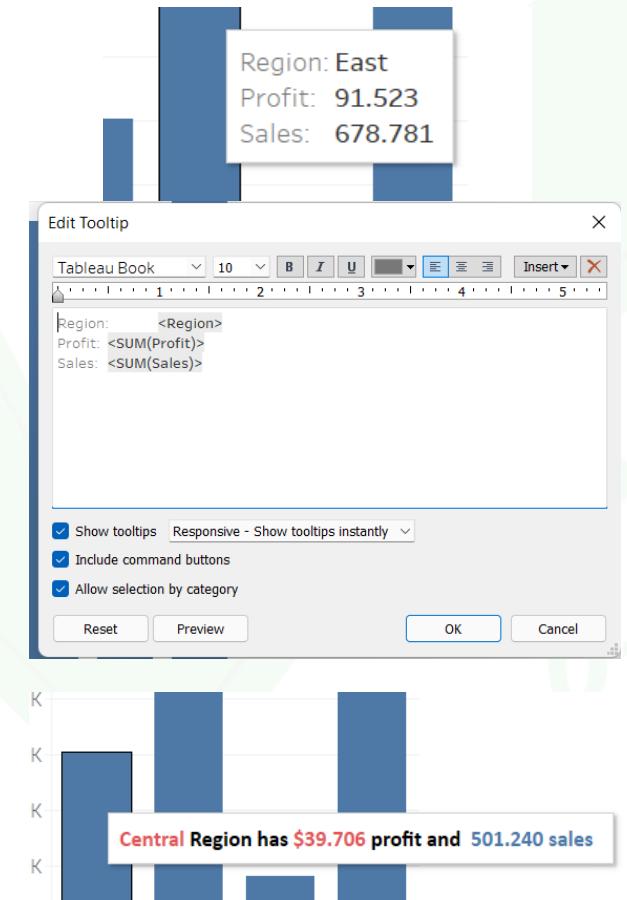


Size - Label - Tooltip



Size

Label



Tooltip

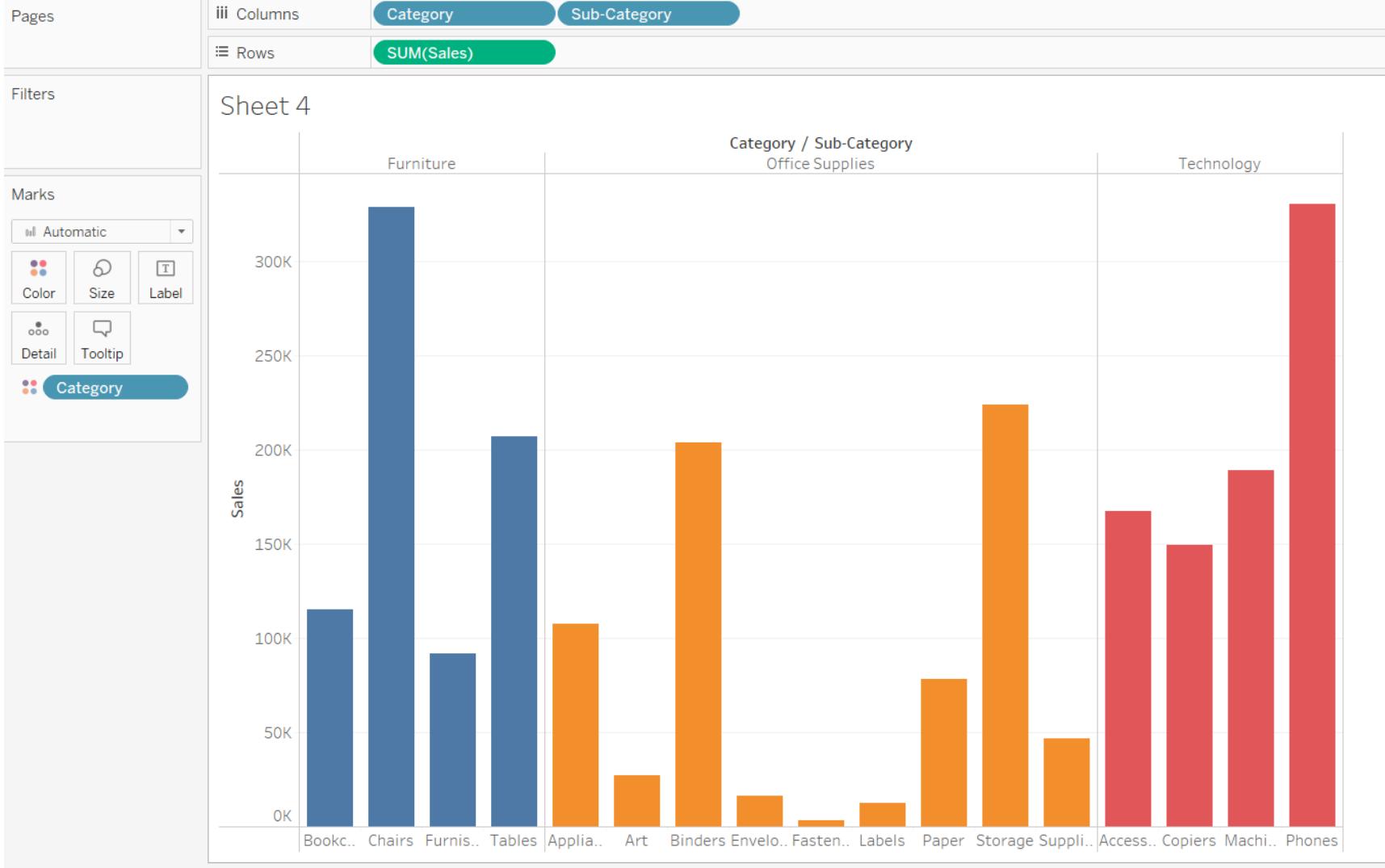


Question

- Graph the sales of subcategories. Group sub-categories belonging to the same category together. Color the subcategories of the same category with the same color.



Hands-On



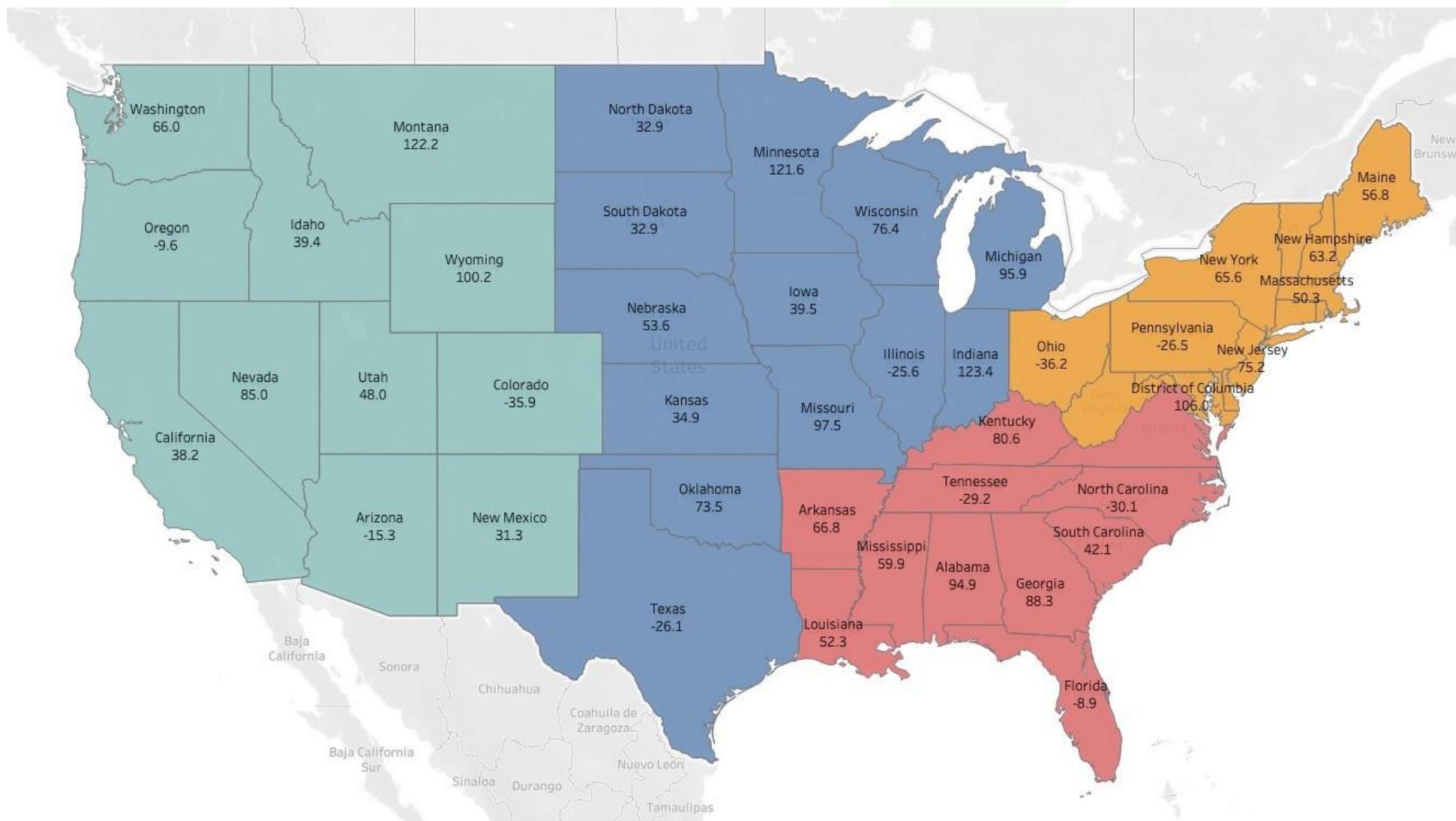


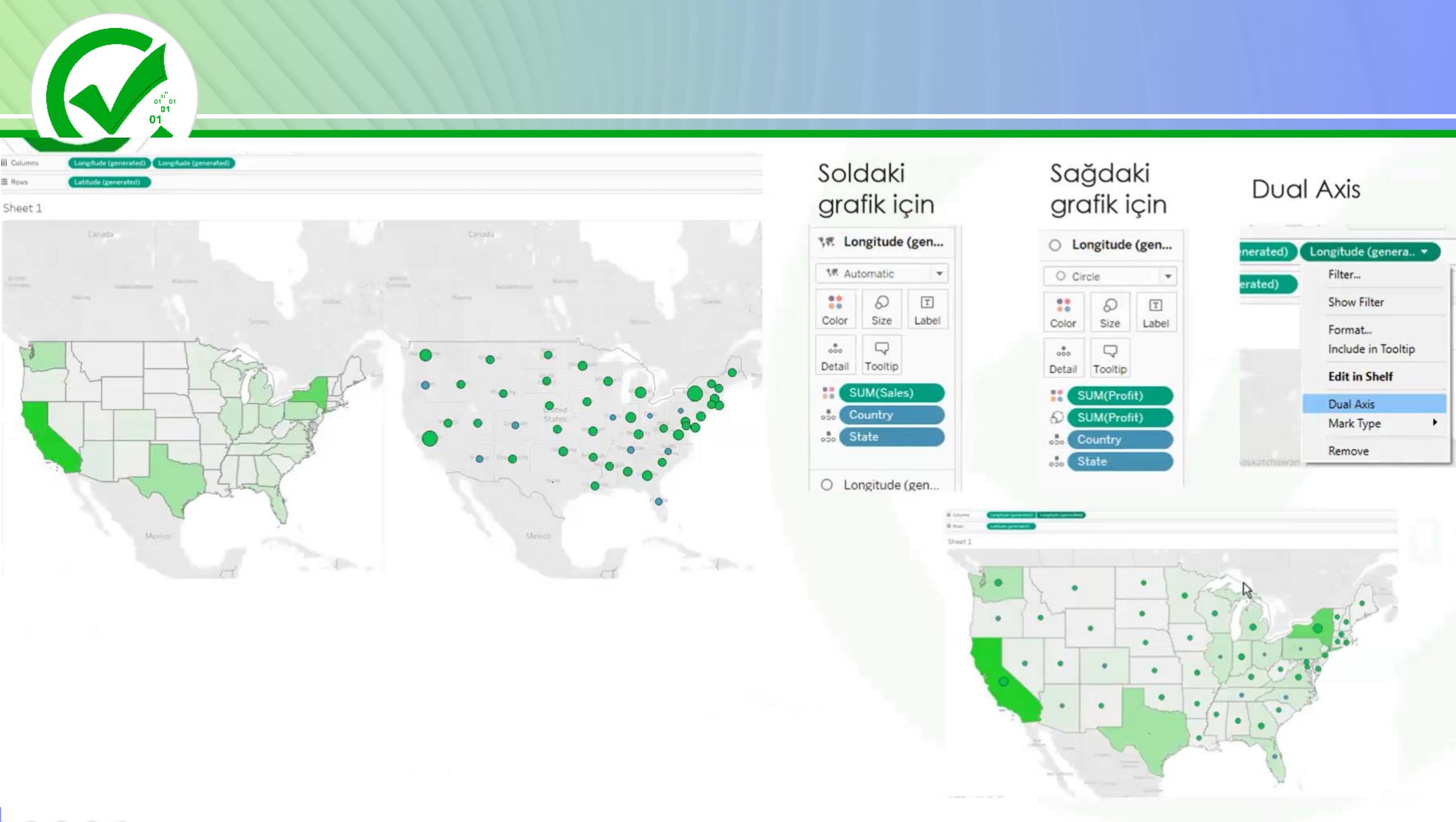
Question

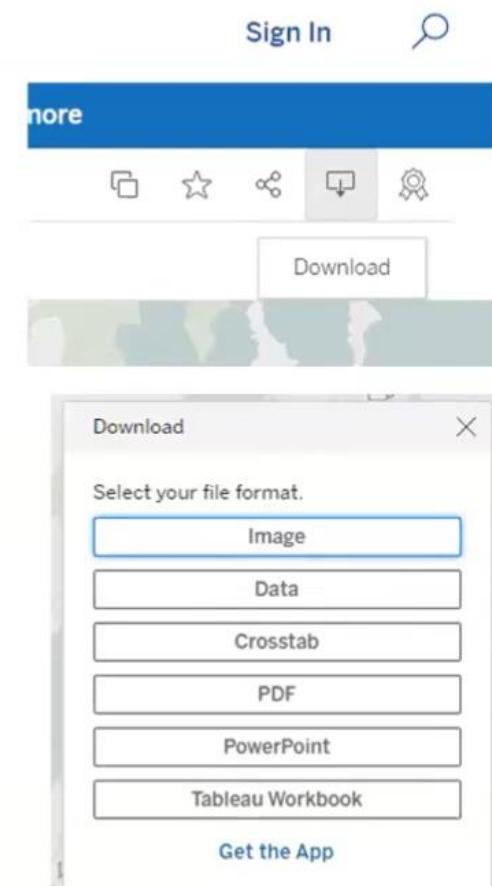
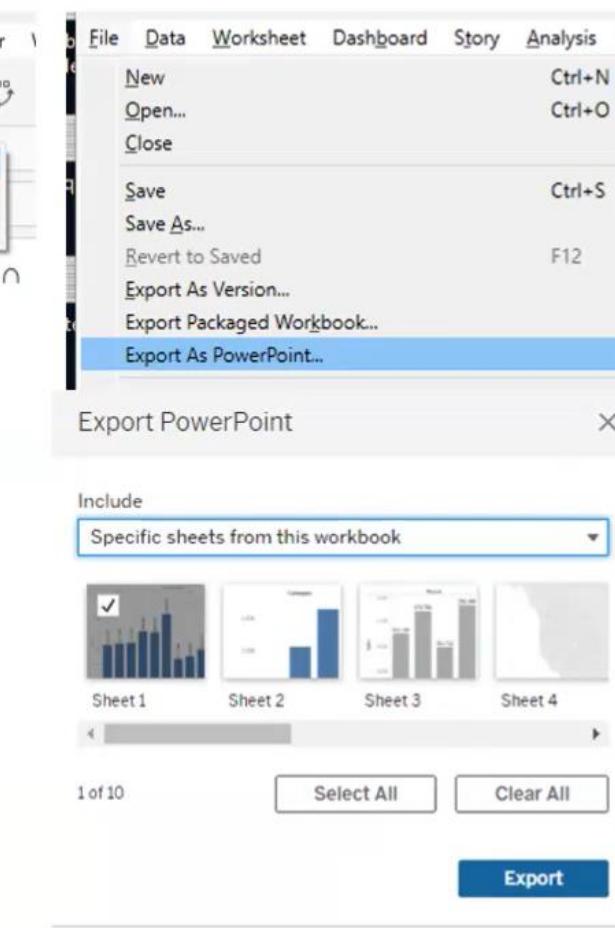
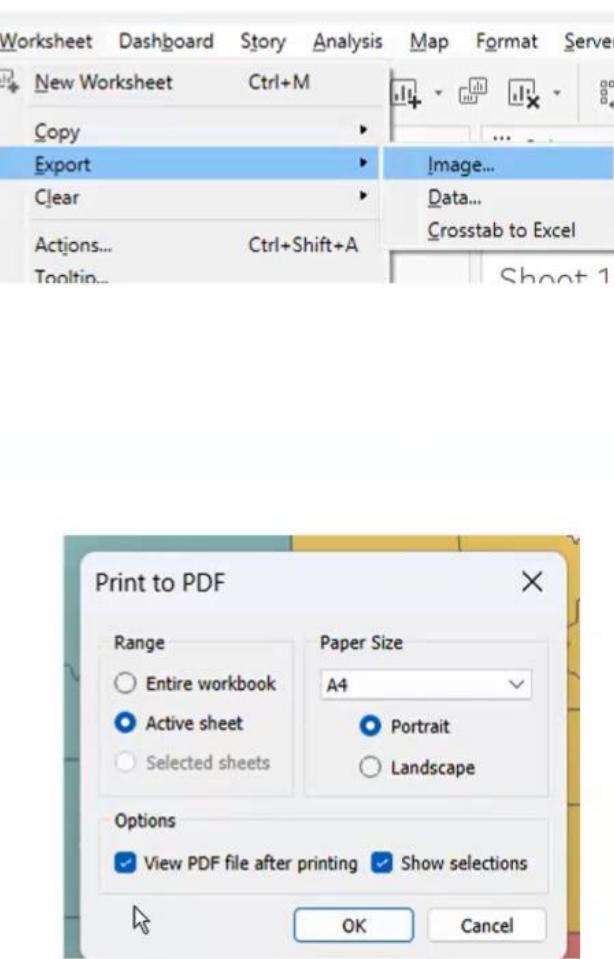
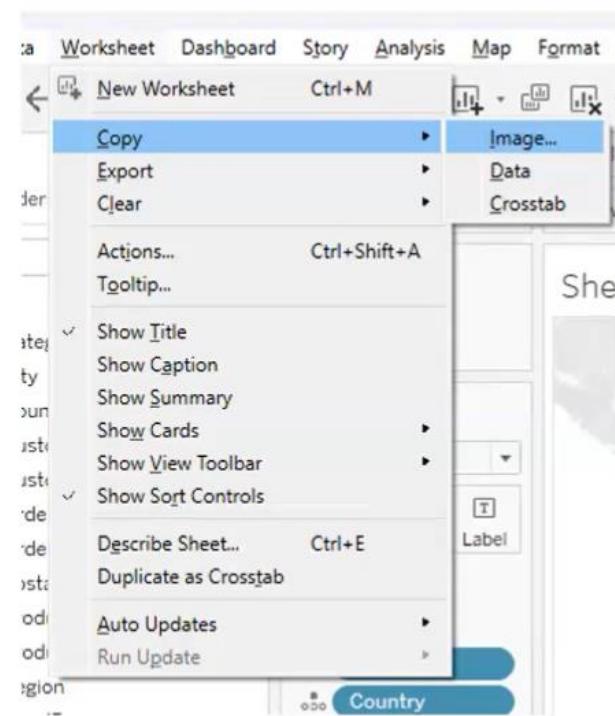
- Show me the regions in the USA, with different colors.
- Add each state's name and average profit to the same map.



Answer..









Create Account

**Until next lecture, please create
a Tableau Public account.**

[Tableau Public sign up..](#)



Tableau - 3

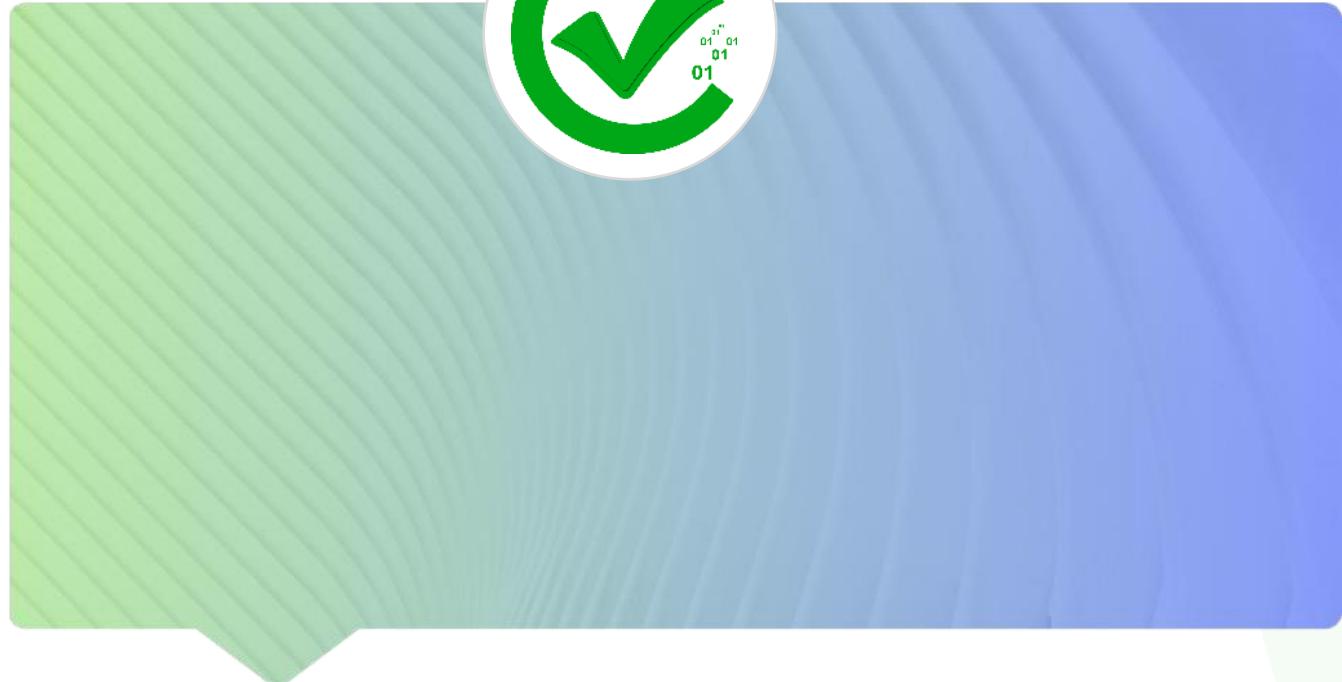


Analyze Data and Dashboard



I practiced previous lectures,
and have no question.





I created Tableau Public account.





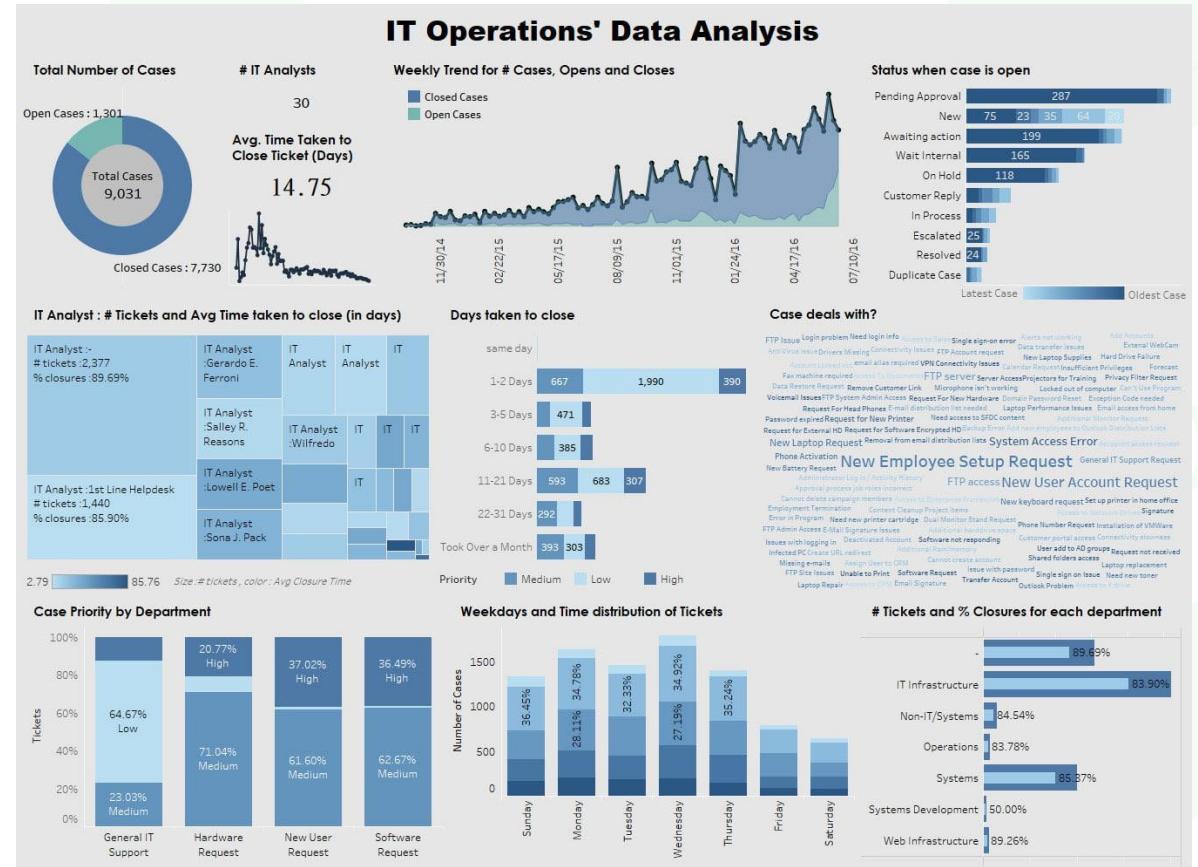
Tableau



+ a b | e a u®

Content

- Filters
- Sorting Data
- Analyze Data
- Share your work
- Creating Groups and Hierarchies





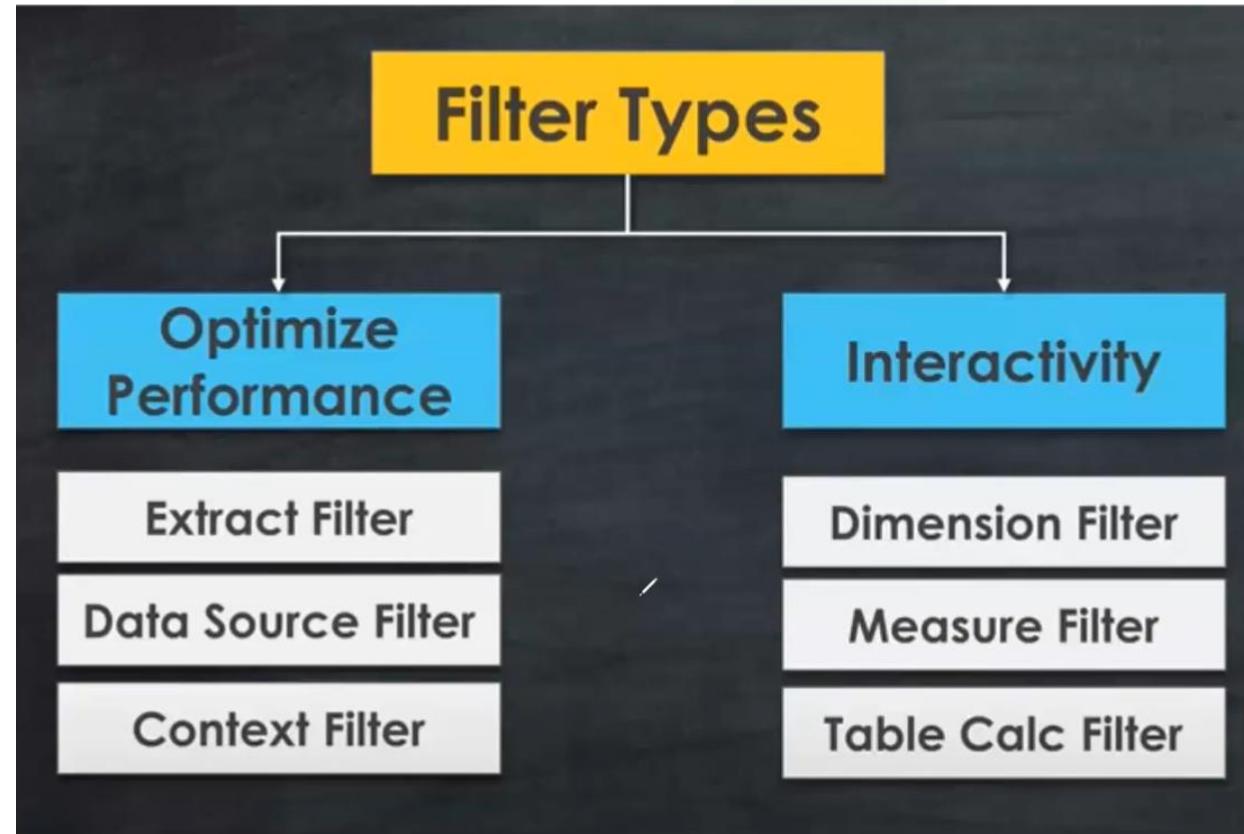
FILTERING

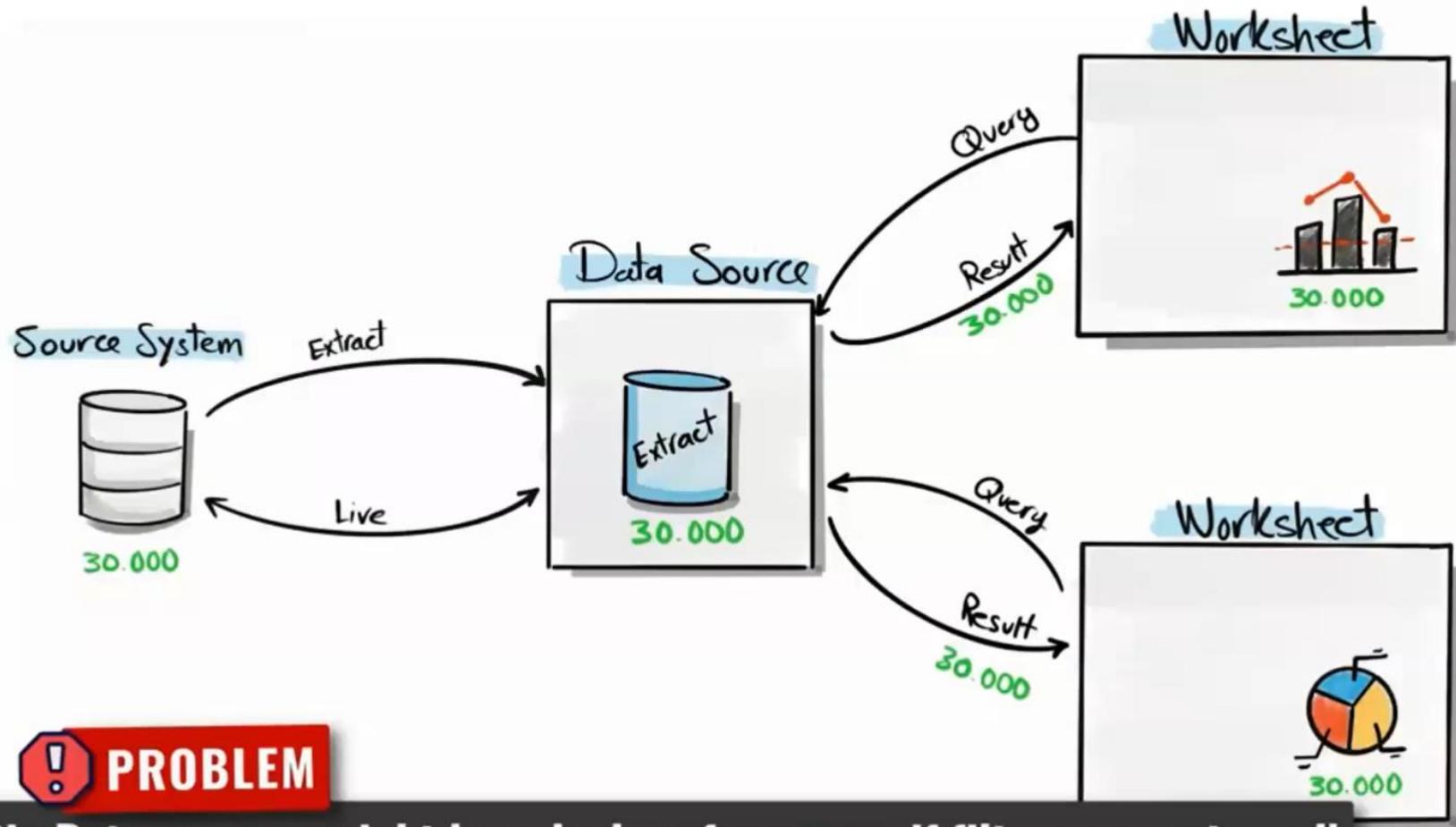
tableau

The Tableau logo features a 4x4 grid of colored plus signs (orange, green, red, blue) arranged in four rows and four columns. Below the grid, the word "tableau" is written in a lowercase, sans-serif font.



Filter Types





! PROBLEM

Big Data sources might have bad performance, if filters are not used!



Filtering



Filter Types

- Extract filter
- Data source filters
- Context filters
- Filters on dimensions
- Filters on measures

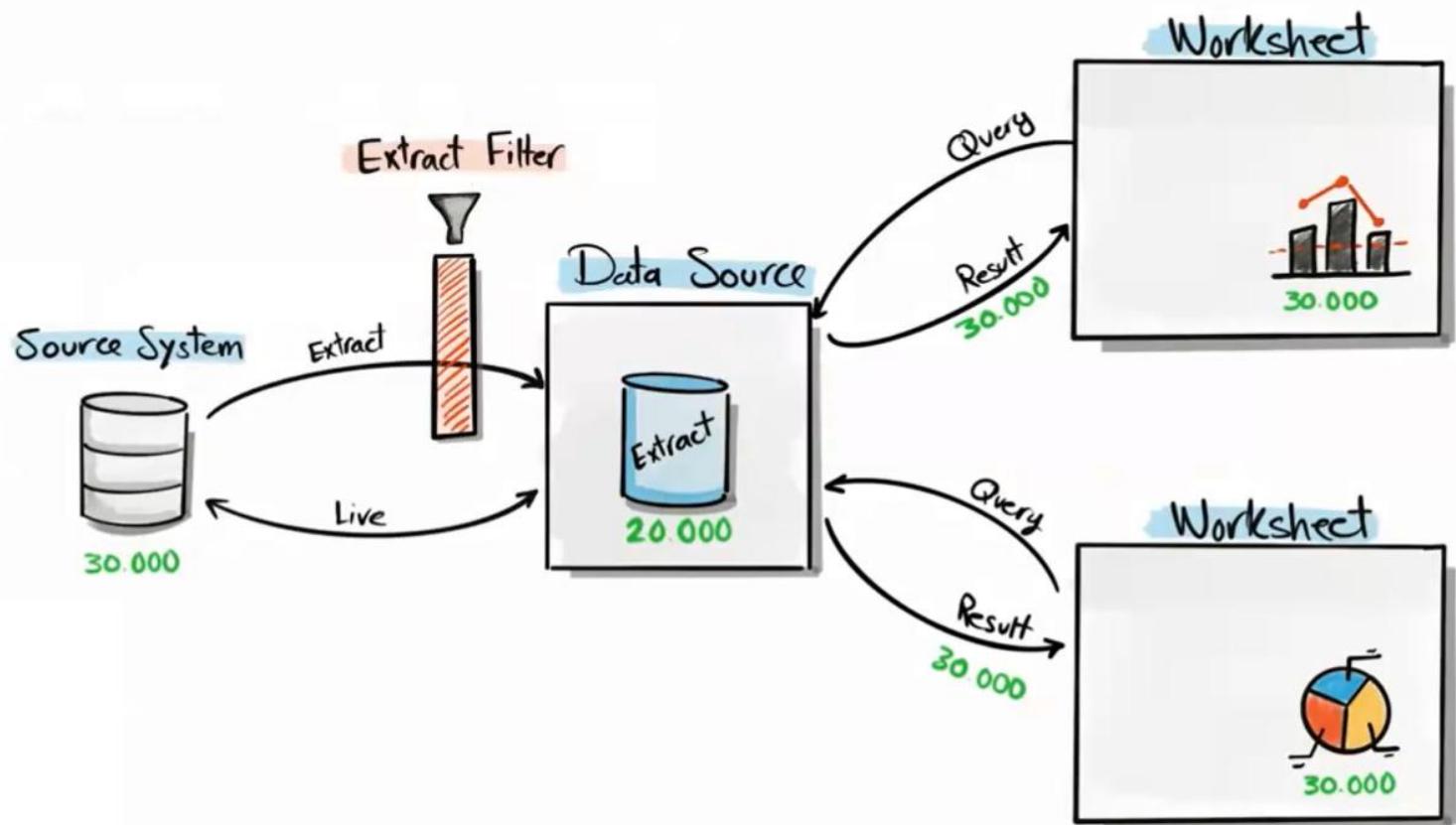
Order of Operation

- Extract filter
- Data source filters
- Context filters
- Filters on dimensions
- Filters on measures



Extract Filter

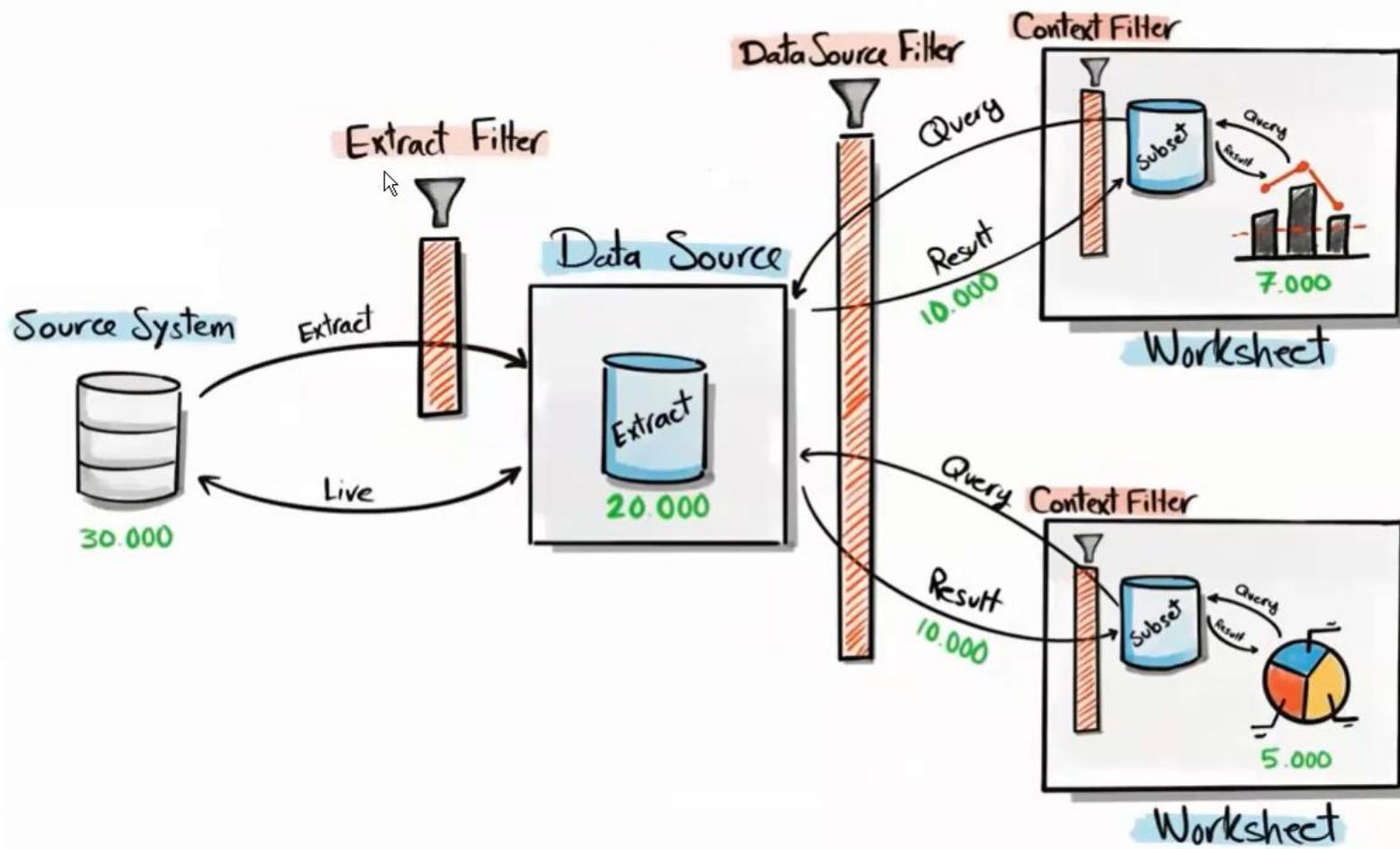
Used to filter data before it even enters Tableau

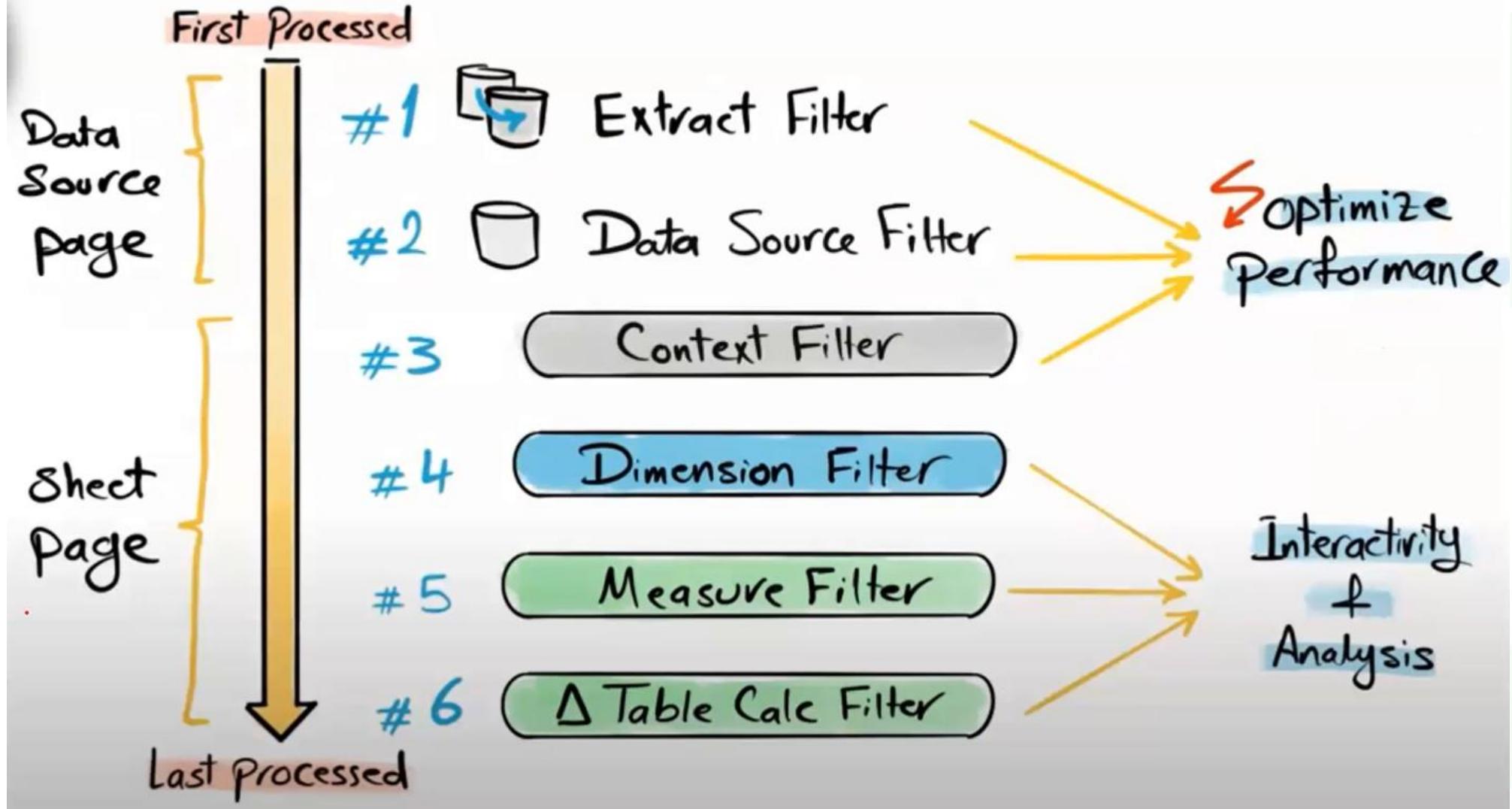




Context Filter

Creates temporal filtered subset of data in worksheets







Filtering



- to reduce the overall data frequency for faster processing
- The filter dialog differs depending on whether you filter categorical data (dimensions), quantitative data (measures), or date fields.

The screenshot shows the Tableau desktop application interface. The top navigation bar has tabs for "Data" and "Analytics", with "Data" currently selected. Below the tabs, there is a connection list with "Orders (Sample - Superstore)". A search bar and a filter icon are also present. The main area is divided into three sections: "Tables" (listing dimensions like City, Country/Region, Customer ID, etc.), "Marks" (listing measures like Color, Size, Label, Detail, Tooltip, Path), and "Pages" (which is currently empty). The "Tables" section includes a dropdown menu with options like "Automatic", "Color", "Size", "Label", "Detail", "Tooltip", and "Path".



Exercise

- Top 20 customers in sales
- First 20 customers whose name starts with “S”
- Top 20 customers in sales whose name starts with “S”



Filters

1

Sheet 14

Customer Name	SUM(Sales)
Sean Miller	25.043
Tamara Chand	19.052
Raymond Buch	15.117
Tom Ashbrook	14.596
Adrian Barton	14.474
Ken Lonsdale	14.175
Sanjit Chand	14.142
Hunter Lopez	12.873
Sanjit Engle	12.209
Christopher Conant	12.129
Todd Sumrall	11.892
Greg Tran	11.820
Becky Martin	11.790
Seth Vernon	11.471
Caroline Jumper	11.165
Clay Ludtke	10.881
Maria Etezadi	10.664
Karen Ferguson	10.604
Bill Shonely	10.502
Edward Hooks	10.311
John Lee	9.800
Grant Thornton	9.351

2

Sheet 14

Customer Name

Customer Name

3

Filter [Customer Name]

Select from list Custom value list Use all

Enter search text

- Aaron Bergman
- Aaron Hawkins
- Aaron Smayling
- Adam Bellavance
- Adam Hart
- Adam Shillingsburg
- Adrian Barton
- Adrian Hane
- Adrian Shani
- Aimee Bibby
- Alan Barnes
- Alan Dominguez
- Alan Haines

All None Exclude

Summary

Field: [Customer Name]
Selection: Selected 793 of 793 values
Wildcard: All
Condition: None
Limit: None

Reset OK Cancel Apply

4

Pages

Filters Customer Name

Marks Automatic

Color Size Text Detail Tooltip

SUM(Sales)

Sheet 14

Customer Name	SUM(Sales)
Becky Martin	11.790
Darrin Martin	6.345
Janet Martin	3.159
Eudokia Martin	1.041

Customer Na... Edit Filter...

- Show Filter
- Show Highlighter
- Clear Filter
- Add to Context
- Apply to Worksheets

5

Customer Na... Edit Filter...

- Show Filter
- Show Highlighter
- Clear Filter
- Add to Context
- Apply to Worksheets

Customer .. Becky Martin

Customer .. Darrin Martin

Customer .. Janet Martin

Customer .. Eudokia Mart



Filters

01

01

01

1

Filter [Customer Name]

General Wildcard Condition Top

None

By field:

Sales > 10.000 Sum

Range of Values
Min:
Max: Load

By formula:

Sheet 14

Customer Name	
Sean Miller	25.043
Tamara Chand	19.052
Raymond Buch	15.117
Tom Ashbrook	14.596
Adrian Barton	14.474
Ken Lonsdale	14.175
Sanjit Chand	14.142
Hunter Lopez	12.873
Sanjit Engle	12.209
Christopher Conant	12.129
Todd Sumrall	11.892
Greg Tran	11.820
Becky Martin	11.790
Seth Vernon	11.471
Caroline Jumper	11.165
Clay Ludtke	10.881
Maria Etezadi	10.664
Karen Ferguson	10.604
Bill Shonely	10.502
Edward Hooks	10.311

2

3

Filter [Customer Name]

General Wildcard Condition Top

None

By field:

Top 20 by Sales Sum

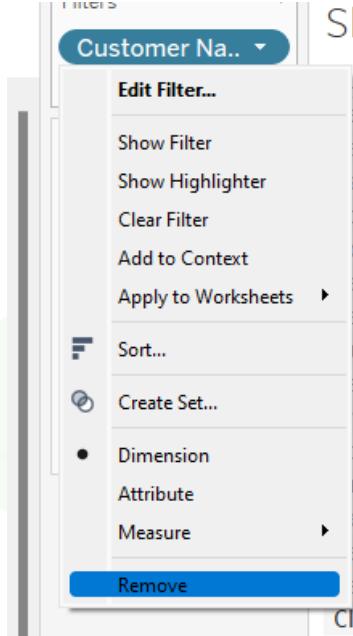
By formula:

Top 10 by Sales Sum

Customer Name	
Sean Miller	25.043
Tamara Chand	19.052
Raymond Buch	15.117
Tom Ashbrook	14.596
Adrian Barton	14.474
Ken Lonsdale	14.175
Sanjit Chand	14.142
Hunter Lopez	12.873
Sanjit Engle	12.209
Christopher Conant	12.129
Todd Sumrall	11.892
Greg Tran	11.820
Becky Martin	11.790
Seth Vernon	11.471
Caroline Jumper	11.165
Clay Ludtke	10.881
Maria Etezadi	10.664
Karen Ferguson	10.604
Bill Shonely	10.502
Edward Hooks	10.311

4

5





Filters

1

Filter [Customer Name]

General Wildcard Condition Top

Match value: Exclude

Contains
 Starts with
 Ends with
 Exactly matches
 Include all values when empty

3

Sheet 14

Customer Name F

Sean Miller	25.043
Sanjit Chand	14.142
Sanjit Engle	12.209
Seth Vernon	11.471
Sean Braxton	8.058
Sarah Brown	6.411
Shirley Daniels	6.121
Shahid Collister	5.993
Suzanne McNair	5.563
Stefania Perrino	5.440
Steven Cartwright	5.226
Sue Ann Reed	4.767
Sample Company A	4.625
Stewart Carmichael	4.493
Scot Coram	4.372
Steven Roelle	4.346
Sung Pak	4.283
Stewart Visinsky	4.105
Susan Pistek	3.991
Sean Christensen	3.979

5

Filter [Sales]

Range of values At least At most Special

Range of values

4,833 25.043,05

4,833 25.043,05

Show: Only Relevant Values Include Null Values

Reset OK Cancel Apply

2

Filter [Customer Name]

General Wildcard Condition Top

None
 By field:
Sales Sum
 > 3.000
Range of Values
Min:
Max:

 By formula:

4

Filter Field [Sales]

How do you want to filter on [Sales]?

All values
 Sum
 Average
 Median
 Count
 Count (Distinct)
 Minimum
 Maximum
 Standard deviation
 Standard deviation (Population)
 Variance
 Variance (Population)
 Attribute

Next > Cancel

6

Sheet 14

Customer Name F

Sean Miller	25.043
Sanjit Chand	14.142
Sanjit Engle	12.209
Seth Vernon	11.471

7

Sheet 14

Customer Name F

Sean Miller	25.043
Sanjit Chand	14.142
Sanjit Engle	12.209
Seth Vernon	11.471

Filter [Customer Name]

General Wildcard Condition Top

Match value: Contains
 Starts with
 Ends with
 Exactly matches
 Include all values when empty

SUM(Sales)



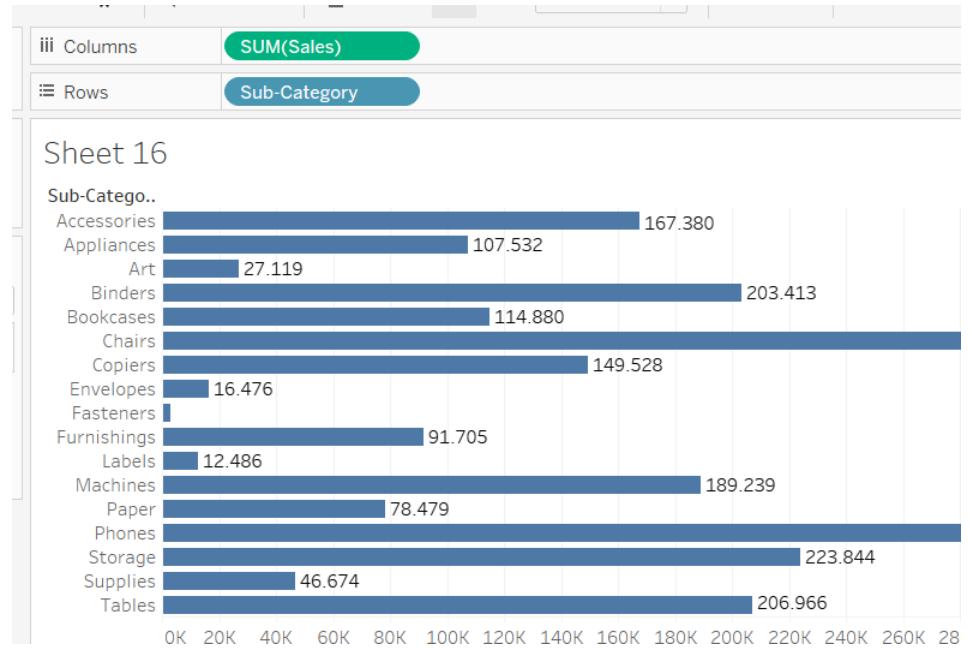
Exercise

- Top 20 customers in sales
- First 20 customers whose name starts with "S"
- Top 20 customers in sales whose name starts with "S"
- Bottom 20 customer in sales
- Customers whose name starts with SA and who has sales more than 3K



Filters

1

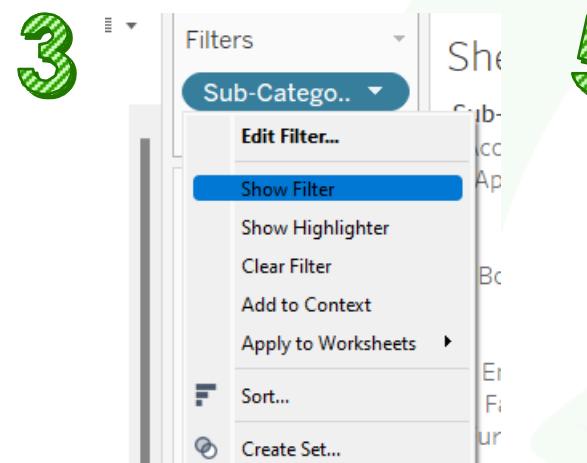


Filters

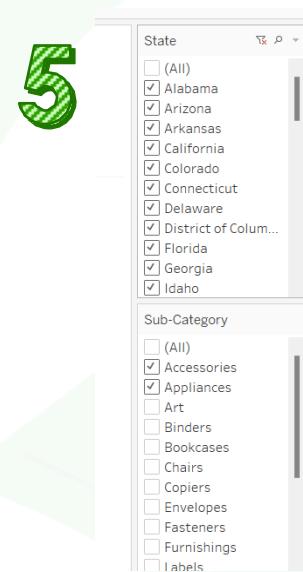
Sub-Category

2

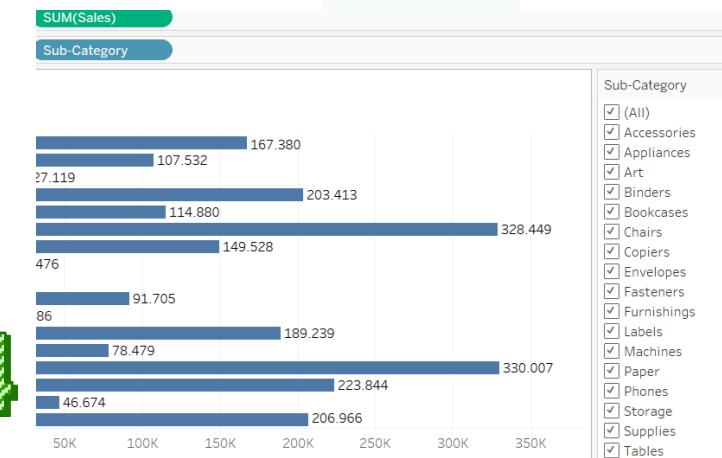
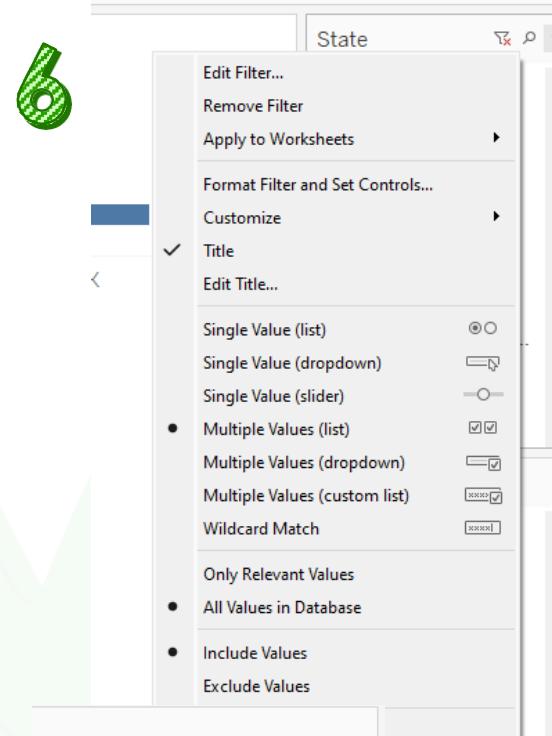
3



5

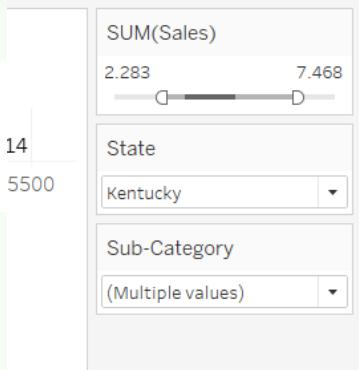


6



4

7





Filters

Among the top 20 customers with the highest sales, those whose names start with s

Pages

iii Columns

Rows Customer Name

Filters

Customer ID

Customer N..

Marks

Automatic

Colour

Size

Text

Detail

Tooltip

SUM(Sal..)

Sheet 13

Customer N..

Sanjit Chand	14.142
Sanjit Engle	12.209
Sean Miller	25.043
Seth Vernon	11.471

Filter [Customer Name]

General Wildcard Condition Top

Match value:

Contains

Starts with

Ends with

Exactly matches

Include all values when empty

Reset OK Cancel Apply

Filter [Customer ID]

General Wildcard Condition Top

None

By field:

Top 20 by Sales Sum

By formula:

Top 10 by

Reset OK Cancel Apply



Filters

Among the people whose names start with s get top 20 customers with the highest sales

Sheet 12

Customer Name	SUM(Sal.)
Sample Compan..	4.625
Sanjit Chand	14.142
Sanjit Engle	12.209
Sarah Brown	6.411
Scot Coram	4.372
Sean Braxton	8.058
Sean Christensen	3.979
Sean Miller	25.043
Seth Vernon	11.471
Shahid Collister	5.993
Shirley Daniels	6.121
Stefania Perrino	5.440
Steven Cartwrig..	5.226
Steven Roelle	4.346
Stewart Carmich..	4.493
Stewart Visinsky	4.105
Sue Ann Reed	4.767
Sung Pak	4.283
Susan Pistek	3.991
Suzanne McNair	5.563

Customer Name

Marks

- Automatic
- Colour
- Size
- Text
- Detail
- Tooltip

SUM(Sal..)

Filter [Customer Name]

General Wildcard Condition Top

Match value: Exclude

Contains
 Starts with
 Ends with
 Exactly matches

Include all values when empty

Filter [Customer Name]

General Wildcard Condition Top

None
 By field:
Top 20 by Sales Sum

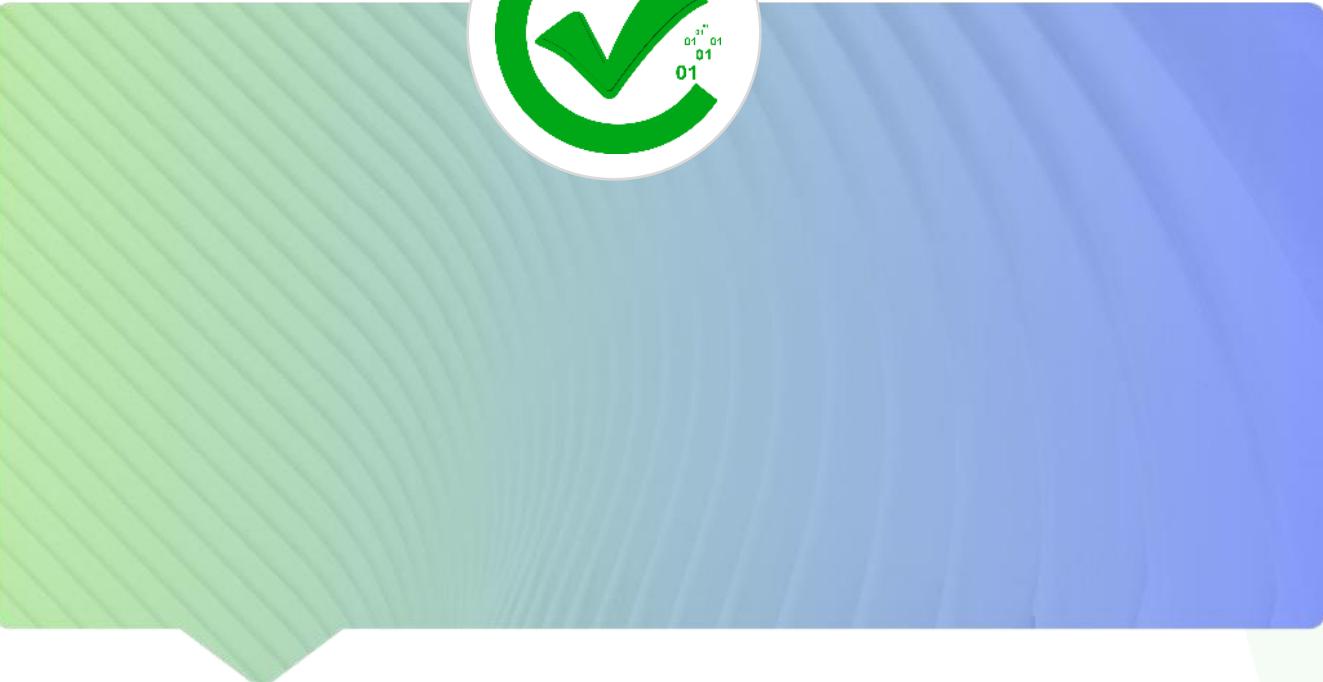
By formula:
Top 10 by



Exercise

- Gold= sales>10K
- Premium= 10K>sales>8K
- Standard= 8K>sales

On the occasion of the “International Day of People with K-Names”, our company will give bonus payment to 3 customers from each category. Please find that within our premium customers, who are the top 3 whose name starts with “K”?



I have covered filters topic!





DASHBOARD AND SHARE



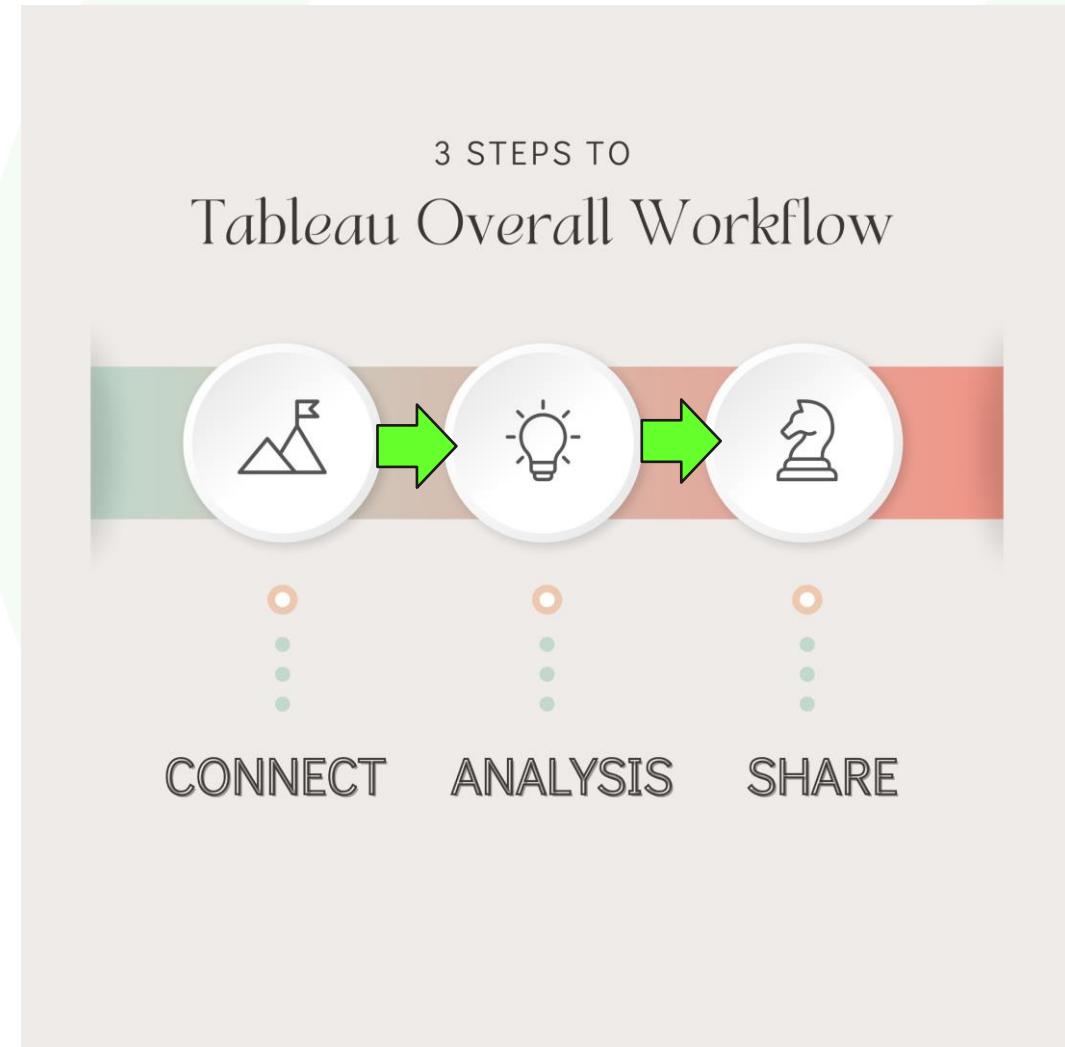


Analyze Data



Basic Workflow of Tableau

- Sharing methods
 - Dashboard
 - .twbx files
 - Tableau Public Cloud account



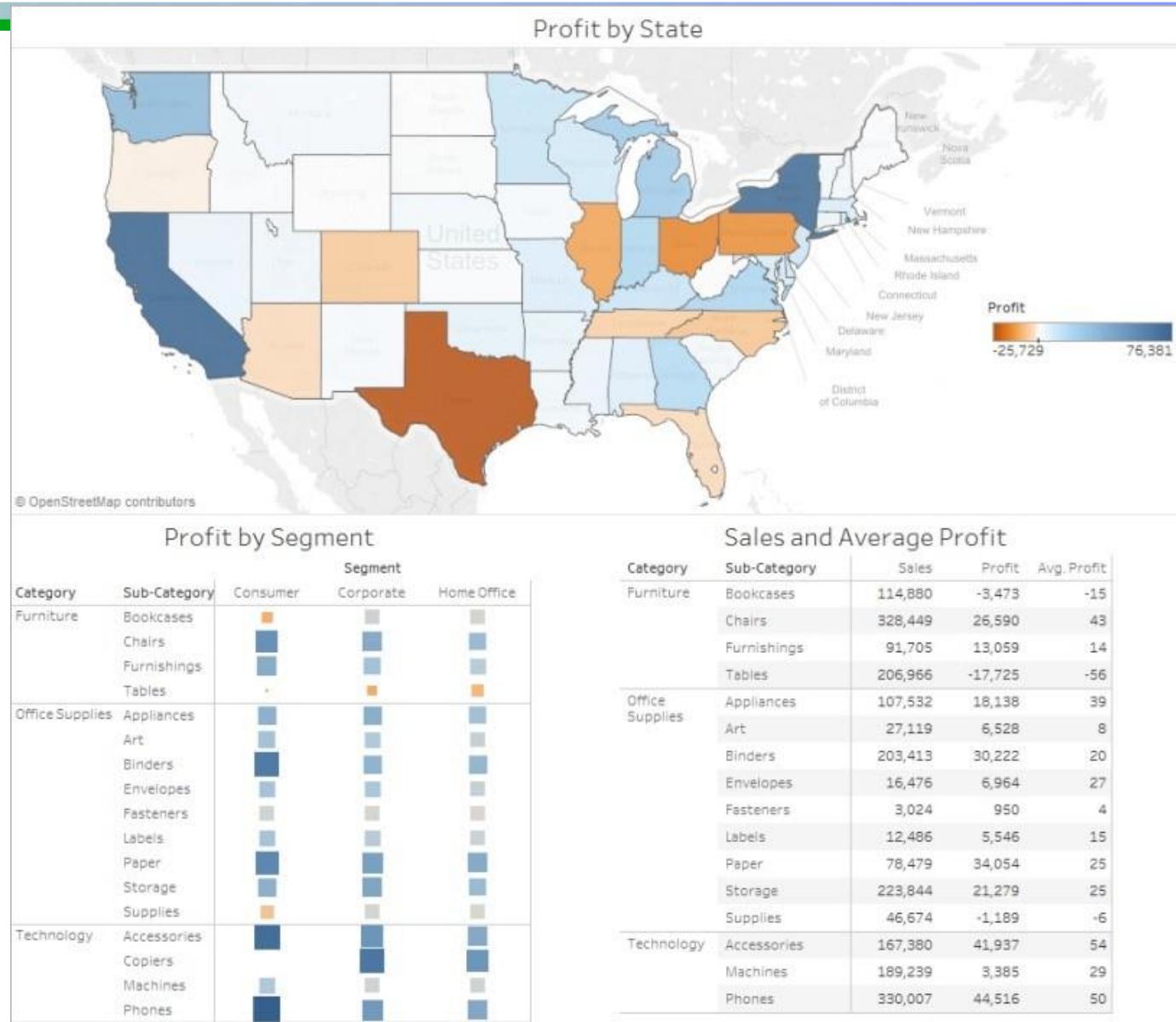


What is Dashboard?



Dashboard

- a visual of worksheets and related information in one view
- an opportunity to see and compare data simultaneously.



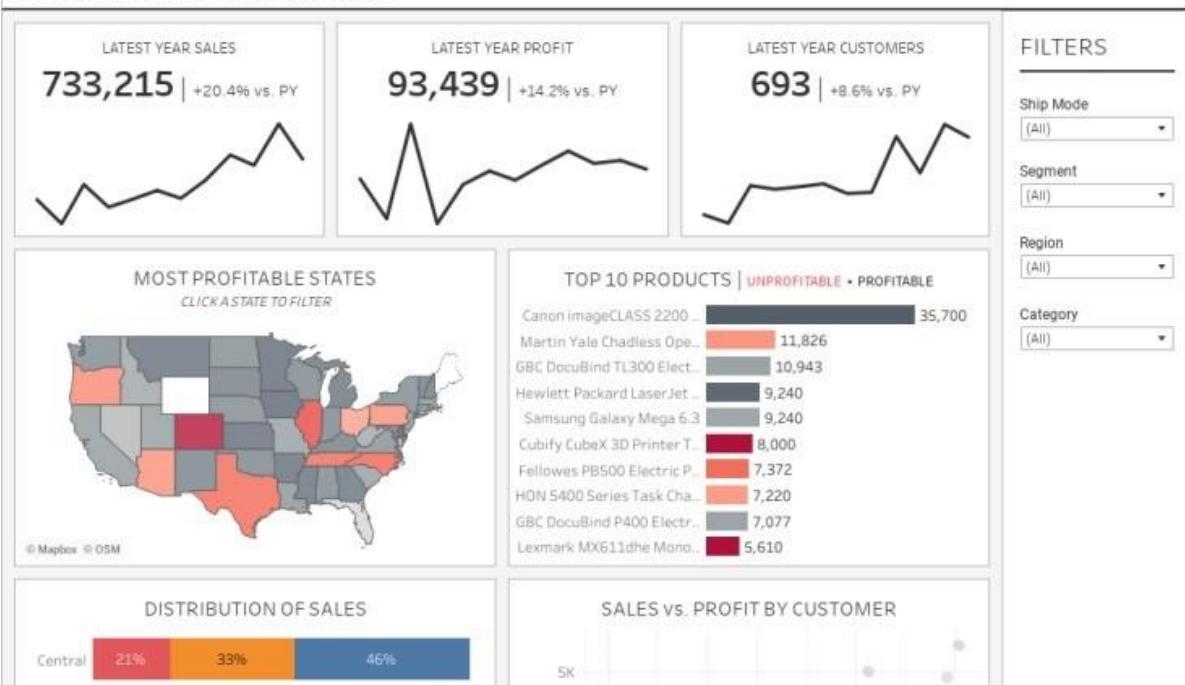


Dashboard samples



+ a b | e a u®

SAMPLE SALES DASHBOARD



Sales Executive Dashboard





What is Dashboard

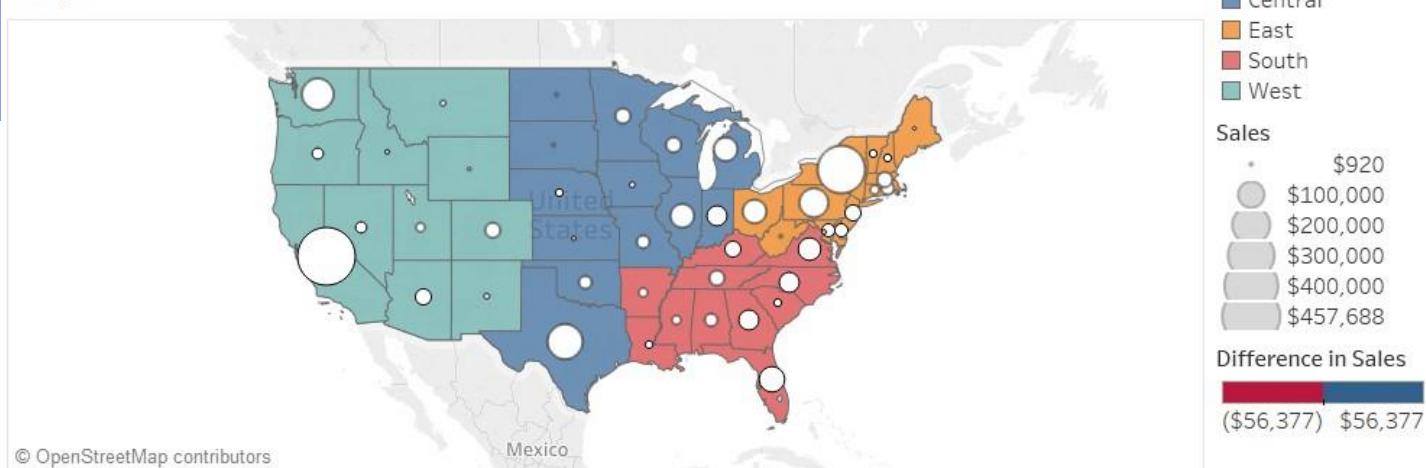


About Dashboard

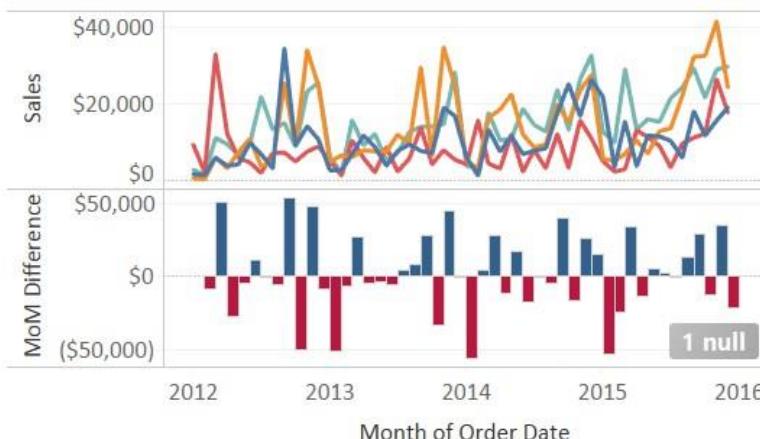
- A graphical user interface
- Progress Report or Report

Tableau 201 Dashboard

Map



Trends



Bar Chart





Exmpl

Create a dashboard with below sheets

- 1- Show total sales for each state , and coloring each region
- 2- Show total sales for each category
- 3- Show sales for each segment



Dashbord Hands-on

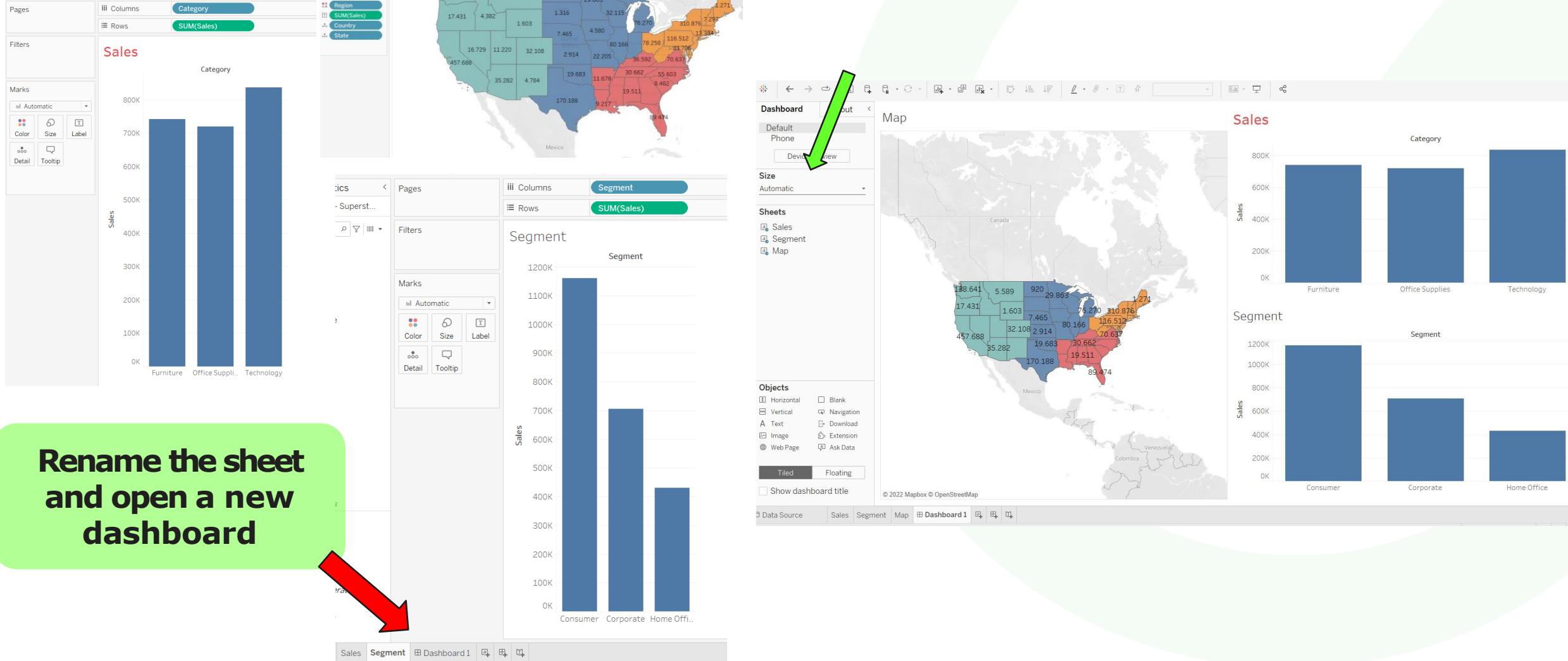




Tableau Public Cloud



- Can be used for the files that cannot be stored in local drive.
- Screen your project without need to install Tableau
- It is the largest visualisation cloud in the world.



TABLEAU
PUBLIC





Publish Process

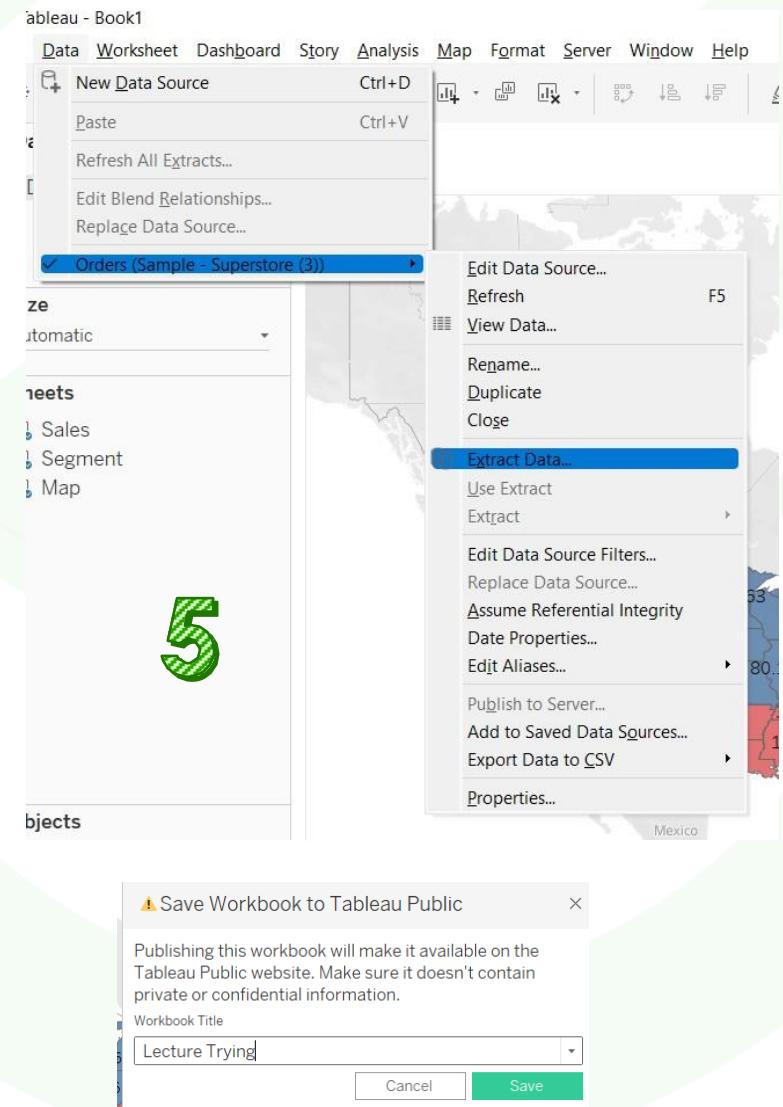
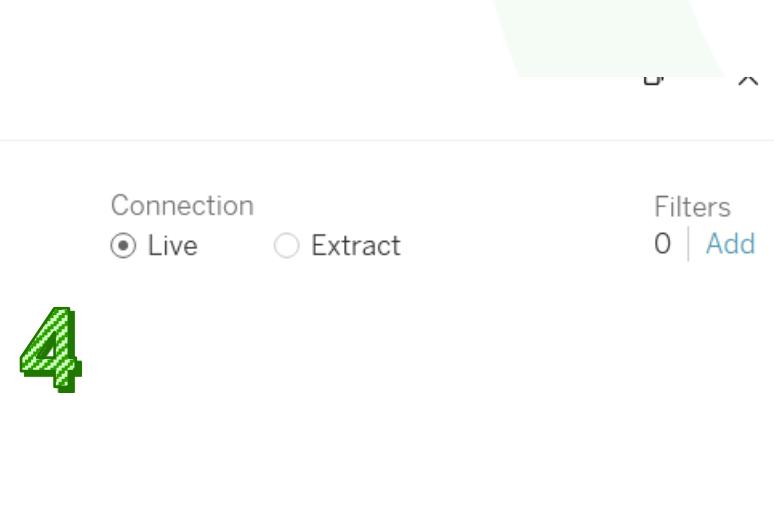
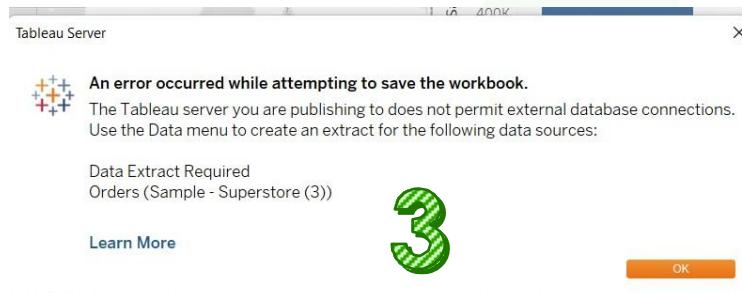
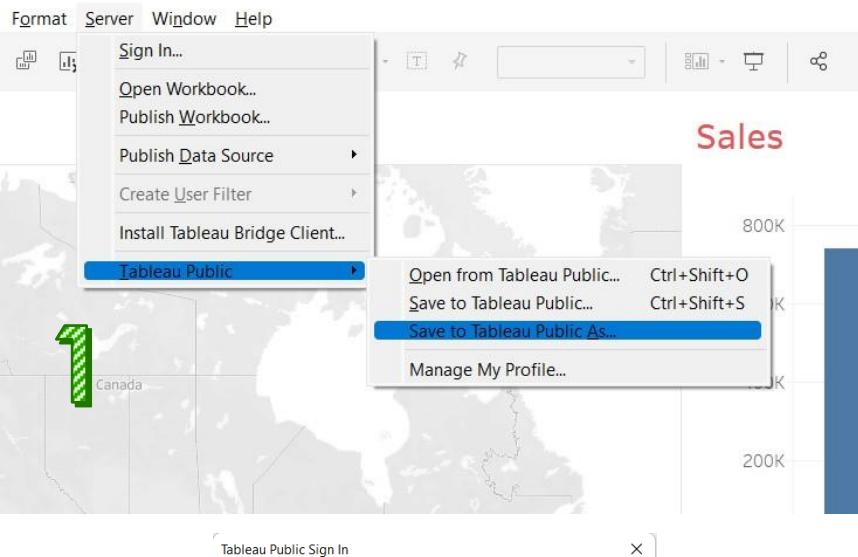




Tableau Public

tableau public

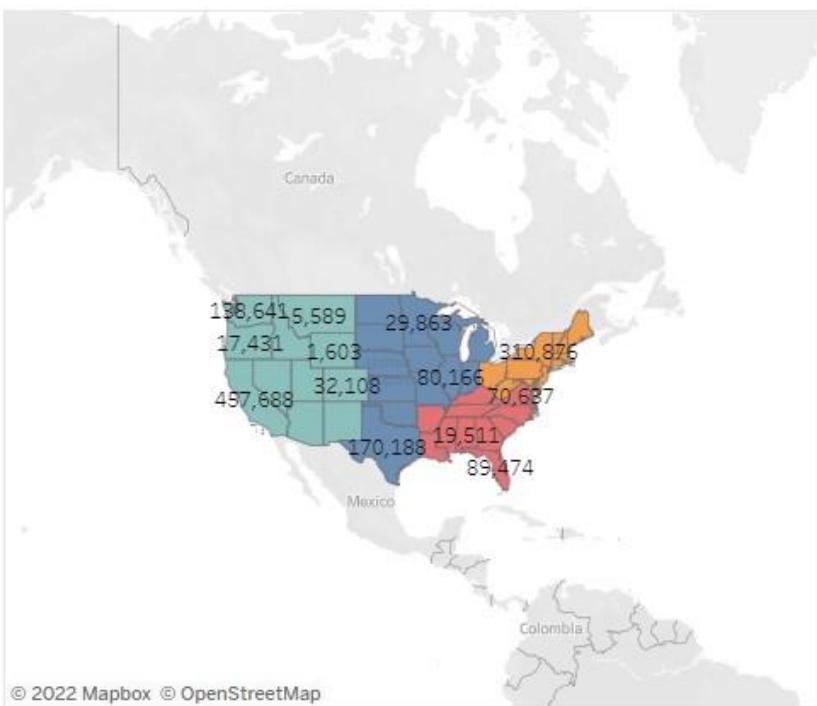
DISCOVER BLOG RESOURCES ABOUT



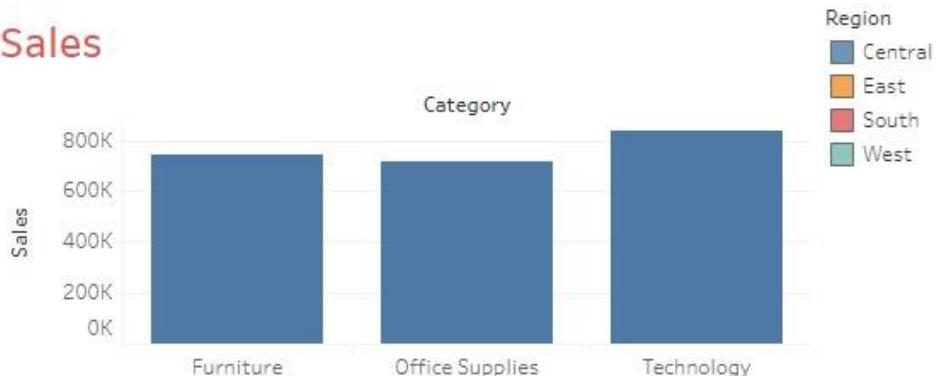
Lecture Trying by Fatih



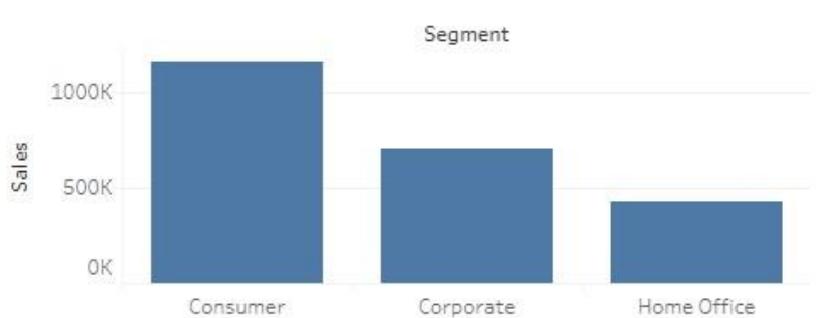
Map



Sales

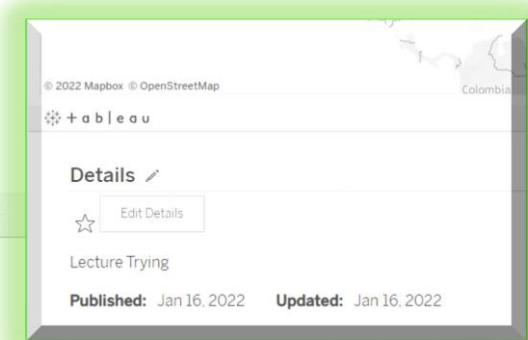


Segment



Region

- Central
- East
- South
- West



Details



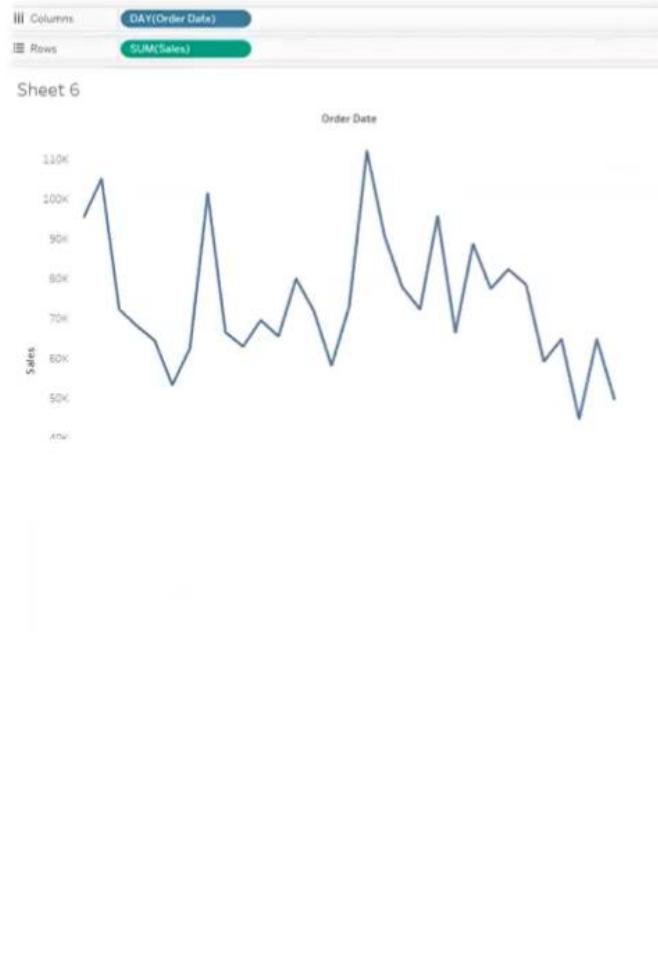
Exercise

15 mins

- The most used shipment method (a chart)
- The shipment method that has the lowest sales number (a chart)
- Sales and profit map by states. Emphasize sales with size and profit with color
- Create a dashboard with these sheets
- Publish it and share the link



Get the days from 5 days before to 12.05.2017(range)



Filter...

Show Filter
Show Highlighter
Apply to Worksheets

Sort...
Format...
✓ Show Header
✓ Include in Tooltip
Show Missing Values
✓ Standard Gregorian ISO-8601 Week-Based

Year 2015
Quarter Q2
Month May
Day 8
More

Year 2015
Quarter Q2 2015
Month May 2015
Week Number Week 5, 2015
Day May 8, 2015
More

Exact Date
Attribute
Measure

Discrete
Continuous

Edit in Shelf Remove

Filter...

Show Filter
Apply to Worksheets

Format...
✓ Show Header
✓ Include in Tooltip
Show Missing Values
Extend Date Range

✓ Standard Gregorian ISO-8601 Week-Based

Year 2015
Quarter Q2
Month May
Day 8
More

Year 2015
Quarter Q2 2015
Month May 2015
Week Number Week 5, 2015
Day May 8, 2015
More

Exact Date
Attribute
Measure

Discrete
Continuous

Edit in Shelf Remove

Marks

Bar Automatic

Line Area Square Circle Shape Text

Filter [Order Date]

Relative dates Range of dates Starting date Ending date Special

Relative dates 8.05.2017 to 12.05.2017

Years Quarters Months Weeks Days

Last 5 days
Anchor day Next 3 days
Next day

Anchor relative to 12.05.2017

OK Cancel Apply

Filter Field [Order Date]

How do you want to filter on [Order Date]?

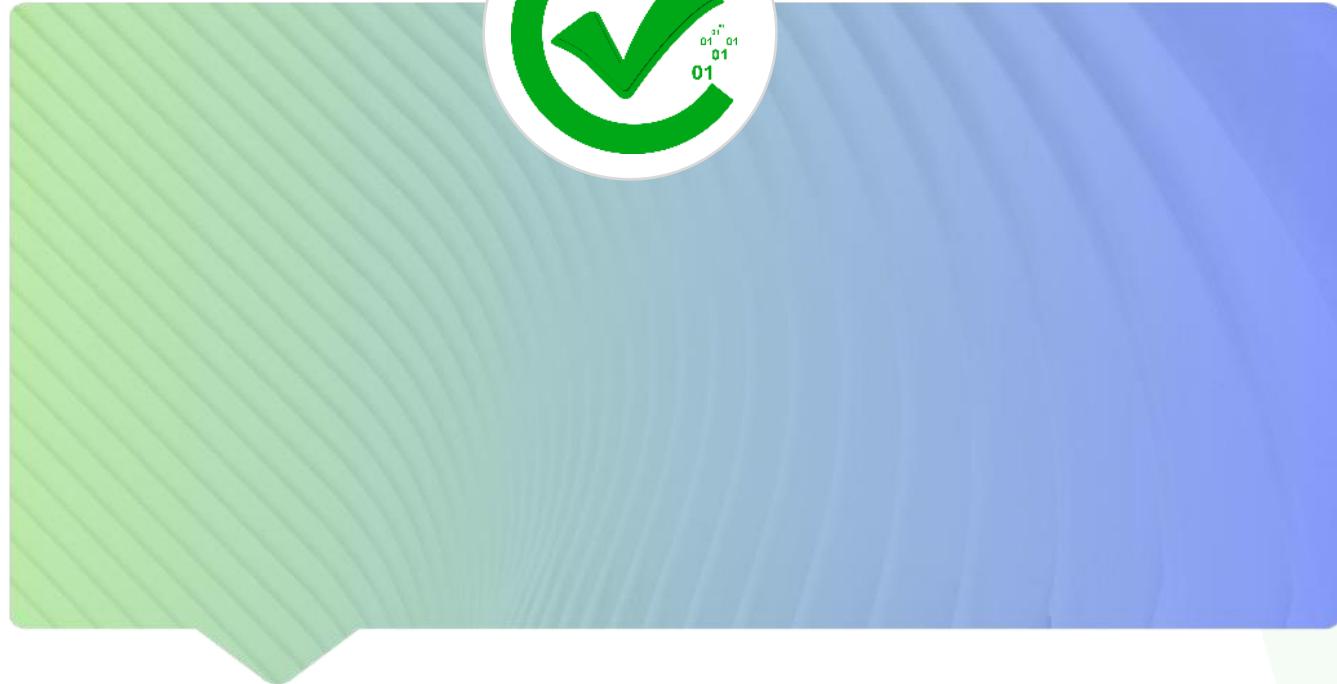
Range of Dates

Years Quarters Months Days Week numbers Weekdays Month / Year Month / Day / Year Individual Dates

Count Count (Distinct) Minimum Maximum

Attribute

Next > Cancel



I understood today's lecture..



FINISH..

Do you have any question...?