



Tableau 2024 A-Z: Hands-On Tableau Training for Data Science

★ Favorites	<input checked="" type="checkbox"/>
▣ Notebook	<input type="checkbox"/> Tableau
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📎 Certificate	UC-bfd97e09-2380-42b0-99f3-7439fa117fb3.pdf
⌚ Created time	@August 5, 2024 11:12 PM
☰ Instructor	Kirill Eremenko, SuperDataScience Team, Ligency Team
📑 Status	<input type="checkbox"/> Done
🔗 URL	https://tcsglobal.udemy.com/course/tableau10/

Template tip: Use this template to manage your notes.

Pomodoro Timer

<https://notiontimerlight.netlify.app/>

Objectives

Add your objectives here to track your next action when you return to the notes.

[Lofi](#)

Objective

Specific Objective 1

Specific Objective 2

Specific Objective 3

[Jazz](#)

Learning Materials

Add the learning material referenced in your notes

▼ Learning Materials

▼ Material 1

▼ Material 2

▼ Material 3

Use this section to take notes on learning materials. Choose a note-taking method to start taking notes.

Work Desk

Topic:

Date: @May 19, 2024

Notes

Tableau Course: Download Practice Datasets | Page | Art of Visualization

Download the top first file if you are using Windows and download the second file if you are using Mac. Remember, to import CSV files into Tableau, select the "Text File" option (not Excel).

🔗 <https://www.artofvisualization.com/pages/tableau>

Learning Paths – Data Masters Club

The new powerful tool that will guide you on your educational journey and empower your career with Data Science.

🔗 <https://datamastersclub.com/learning-paths/>

WHAT-CHART-TYPE-TO-CHOOSE-FOR-WHAT-DATA.pdf

Your-Shortcut-To-Becoming-A-Better-Data-Scientist.pdf

7-Reasons-why-Tableau-Top-BI-tool.pdf

Data	Conceptual	Visualisation
------	------------	---------------

Section 2 : Tableau Basics your first project

connect to CSV	Calc Field	Bar chart
		Colours
		Labels
		Formatting
		Exporting

Section 3 : Timeseries, Aggregation, and Filters

Excel Files	Timeseries as measures	Line Chart
Data Extracts	Timeseries as dimensions	Shapes
	Aggregation	Show-me
	Granularity	Area Chart
	Filter	Highlighting
	Quick Filter	

Section 4 : Maps, Scatterplots, and your first dashboard

Data joins	Hierarchies	Map
	Filter on multiple sheets	Circles on a Map
	Dashboard : adding charts	Scatterplot

	Dashboard : quick filter	Dashboard : Layout
	Dashboard : filter action	
	Dashboard : highlight action	

Section 5 : Joining and Blending Data, PLUS : Dual Axis Chart

Join theory	calc field in a blend	dual axis charting
Blending data		
joining vs blending		

Section 6 : Table Calculations, Advanced Dashboards, Storytelling

	Geographic roles	Filled map
	Table calculations	pie chart
	Bins	distributions
	Parameters	Tree map
		Storyline

Section 7 : Advanced Data Preparation

Data interpreter		
pivot		
splitting columns		
metadata grid		
fixing map errors		

SDS 012: Online Learning, Tableau Insights and Ad Hoc Analytics - Podcasts - SuperDataScience | Machine Learning | AI | Data Science Career
Welcome to episode #012 of the Super Data Science Podcast. Here we go! Today's guest is Up and Rising Tableau Expert Megan Putney Subscribe on iTunes, This is going to be such a terrifically inspirational episode for all of you listeners just starting out with Tableau, or in fact any other

<https://www.superdatascience.com/podcast/sds-012-online-learning-tableau-insights-and-ad-hoc-analytics-with-megan-putney>

SDS 081: Data Visualization & how to freelance your passion - Podcasts - SuperDataScience | Machine Learning | AI | Data Science Career
Welcome to episode #081 of the Super Data Science Podcast. Here we go! Today's guest is Data Visualisation Designer Nadieh Bremer Subscribe on iTunes, If you are interested in the more creative aspects of data science, while still maintaining a strong focus on the technical challenges, data visualisation might b

<https://www.superdatascience.com/podcast/data-visualization-training>

▼ Huge Congrats for completing challenge! & additional courses

Hey!

If you started this course less than 2 weeks ago, then **Huge Congratulations** for completing the challenge!

Don't forget to get your Prize by simply **sending us a direct message** ([link here](#) and then you click "Send message") **with a screenshot of your certificate of completion**. Or, if you are happy to share your certificate on LinkedIn, feel free to do so **and mention Kirill (@kirill eremenko)** in the post so that we can see it (our team is very active on LinkedIn). Whatever option you choose, I look forward to sending you the Prize containing the AI use cases, Tableau LOD Calculations Cheatsheet, and Cover Letter and Resume Template for Data Science.

We will also add you to the draw of the current month.

Speaking of the draw, it now has a weighting system, so that **students who complete the longer courses get more entries in the draw**. If you wish to learn more through our other courses while getting more entries in the draw, please find below **the links to our different courses ranked by descending numbers of entries in the draw:**

[Machine Learning A-Z \(5 entries\)](#)

[Deep Learning A-Z \(4 entries\)](#)

[Artificial Intelligence A-Z \(3 entries\)](#)

[Blockchain A-Z \(3 entries\)](#)

[Artificial Intelligence for Business \(3 entries\)](#)

[Artificial Intelligence Masterclass \(3 entries\)](#)

[Data Science A-Z \(3 entries\)](#)

[R Programming A-Z \(3 entries\)](#)

[SQL & Database Design A-Z \(3 entries\)](#)

[Python A-Z \(3 entries\)](#)

[Tableau 2022 Advanced \(3 entries\)](#)

[Tableau 2022 A-Z \(2 entries\)](#)

[Deep Learning and Computer Vision A-Z \(2 entries\)](#)

[Statistics for Business Analytics and Data Science A-Z \(2 entries\)](#)

[R Programming: Advanced Analytics In R For Data Science \(2 entries\)](#)

[Deep Reinforcement Learning 2.0 \(2 entries\)](#)

[Deep Learning and NLP A-Z \(2 entries\)](#)

[Beginner Machine Learning in Python \(1 entry\)](#)

[Executive Briefing: Artificial Intelligence \(AI\) \(1 entry\)](#)

[Careers in Data Science \(1 entry\)](#)

[Intro to Data Science \(1 entry\)](#)

[Power BI A-Z \(1 entry\)](#)

[Introduction to Blockchain \(1 entry\)](#)

And until then, enjoy Tableau!

Kirill

Confirmation Live Training - SuperDataScience | Machine Learning | AI | Data Science Career | Analytics | Success
Congrats, you're booked for the live training!

 <https://www.superdatascience.com/livetraining-confirmation>



▼ Welcome Challenge

Welcome to our Tableau 2022 course!

Congratulations, you took a great first action starting it, but now we want to motivate you to really learn Tableau and finish the course.

That's why we are giving you a challenge, which starts right now:

If you manage to complete this course in less than **2 months**, we will give you **an incredible Bonus** right after. Here is what we will send you:

- **10 Data Science use cases we do with ChatGPT, including Time Series Analysis, ChatBots, Computer Vision, Recommender Systems, Fraud Detection, Self-Driving Cars, and more.** We recorded one very clear hands-on tutorial for each use case so you will get 10 video lectures plus the codes of each tutorial. What ChatGPT can do has blown my mind, it's really incredible you'll see.
- **Our Tableau Level of Detail Calculations Cheatsheet**
- **One video tutorial where we help you write a great cover letter for your resume, plus a resume template for Data Science.**

To take the challenge, here are the three simple steps you need to follow:

1. Starting from now, you complete the course within two months.

- Once done, you can send the *certificate of completion* which you will get after completing all the lectures, and your *LinkedIn URL* to challenge@superdatascience.com
- Then we will just check that you subscribed to this course less than two months before the moment you sent us the certificate of completion, and if so, we will immediately send you the Bonus.

You can totally do it, so never stop learning, and enjoy Tableau!

Kirill and the SuperDataScience Team

PS: By succeeding the challenge you will also be selected to participate in a **\$1500 Prize Pool Giveaway**. We are drawing 5 Amazon gift cards this month for students who complete any of the challenges we have in our courses: The prizes for this month are **one gift card of 100 USD** (bronze medal), **another one of 200 USD** (silver medal), **another one of 300 USD** (gold medal), **another one of 400 USD** (diamond medal), and **a last one of 500 USD** (platinum medal). If you win, we will contact you and send you immediately your Amazon gift card.

The winners of June are...: Thet (Bronze), Sudhansu (Silver), and the big winner Xinsheen (Gold). Huge Congrats to them!!! (There was no diamond or platinum in June as we just increased the prizes). Video of the draw [here](#).

▼ Getting Started

[P1-SuperStoreUS-2015.xlsx](#)

[1. SuperstoreUS.twb](#)

▼ Section 2 : Tableau Basics your first bar chart

[P1-OfficeSupplies.csv](#)



It's end of the financial year and that means time for annual bonuses!

The Store operates in the three regions and only the top performing employee in each region qualifies for a bonus.

Find out which three employees are eligible to get a bonus for this year.

Employees are measure on total value of sales (\$).



Dimensions

- Contain qualitative values like names, dates, or geographical data. They are used to categorize, segment, and reveal data in the dataset. Examples of dimensions include product category, geographical region, and order status. When added to a view, dimension areas are initially discrete and have a blue background.

Measures

- Contain numeric, quantitative values that can be measured. They are used for calculations and aggregations, such as sum or average. Examples of measures include sales, quantities, or profits. When added to a view, measures areas are initially continuous and have a green background.



To find the Total sales value

here

calculated field is used. **Total Sales = units * unit price**



Formatting and Colours



Export the file as a image then publish it to tableau public

public.tableau.com

🔗 <https://public.tableau.com/app/profile/kirill.eremenko/vizzes#!/>

▼ Section 3 : Time Series, Aggregations and Filters

P1-Long-Term-Unemployment-Statistics.xlsx



Extracts and Live

In Tableau, extracts are compressed snapshots of data saved separately from the original dataset. They can be used to **improve performance, handle large datasets, and access additional functionality**. Here are some benefits of using extracts:

- **Improved performance**

Extracts optimize query performance and can handle large datasets with billions of rows. They can also reduce the load on back-end systems by replacing live connections to databases.

- **Faster data analysis and visualization**

Extracts provide quick responses to analytic queries and can increase performance when the data source is slow.

- **Enhanced functionality**

Extracts can provide access to Tableau functionality that may not be supported by the original data source. For example, they can be used to run custom SQL queries only once, or to use features like count distinct.

- **Pre-aggregations**

Aggregated datasets are smaller than transaction level data extracts, which can improve query performance.

- **Offline availability**Extracts can be embedded in workbooks and accessed offline.



Granularity

Granularity in Tableau is

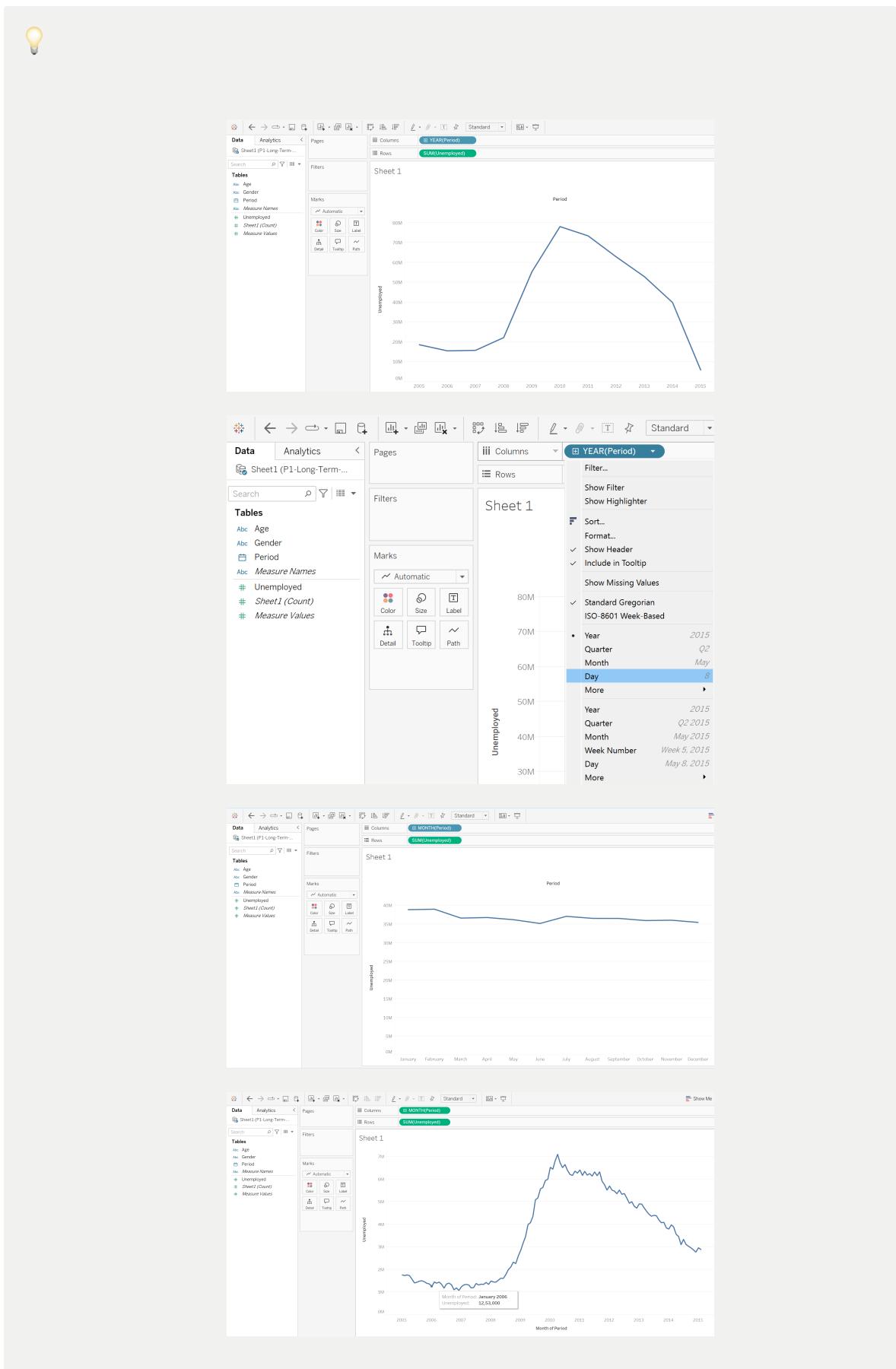
the level of detail in the data that's displayed in a visualization. The more detailed the data, the higher the granularity, and the more rows of data there will be. Less detailed data has lower granularity and fewer rows of data.

Granularity can be controlled by selecting the appropriate dimension in the Rows or Columns shelf. With more detail, it's possible to better understand the smaller components of the data and create a fuller picture.

Granularity in simple terms is

how detailed the data is. The more detailed, the higher the granularity. (Hence the more rows of data you will have) The less detailed, the lower the granularity. (Vice versa, the less number of rows of data you will have)







Explanation by Course instructor

So from what I gather, aggregation is the consolidation of lots of bits of similar data - like the reps' sales figures, or the unemployment figures for all of the different age groups and genders in a country - into one dataset, which you can then summarise by plotting it into a map, turning it into graph/ bar chart or some such tool to visualise the data for reporting purposes.

And granularity is the level of detail you wish to show. So in the context of the rep sales, do you want to consolidate all of each rep's sales into one figure for total sales, or do you want to break that figure down into sales by region for each rep, or do you want to go further and see how well each rep is performing in each sales category in each region. How you visualise your data will depend on the level of granularity that you wish to show.

You can take a look at this link for granularity.

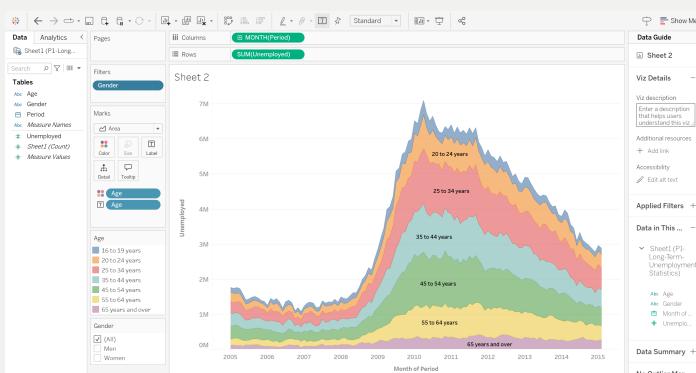
<https://www.youtube.com/watch?v=BZesMeOZCEc&t=94s>

You can also have a look at the aggregation concept in detail from this link:

https://help.tableau.com/current/pro/desktop/en-us/calculations_aggregation.htm



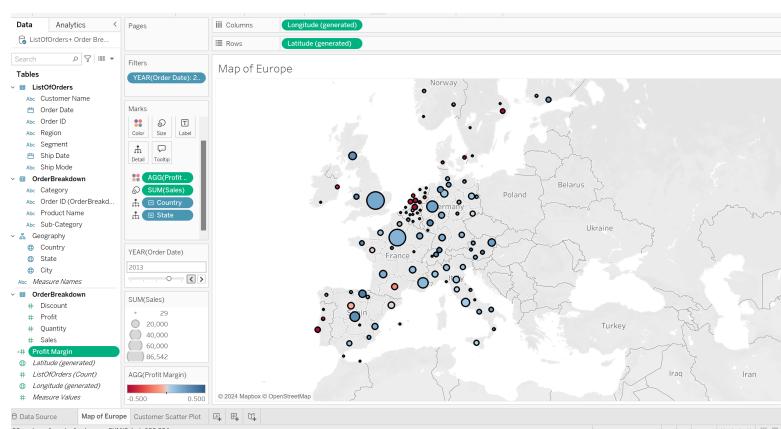
Choose the suitable chart to visualize and apply filter



▼ Section 4 : Maps, Scatterplots, and your first dashboard



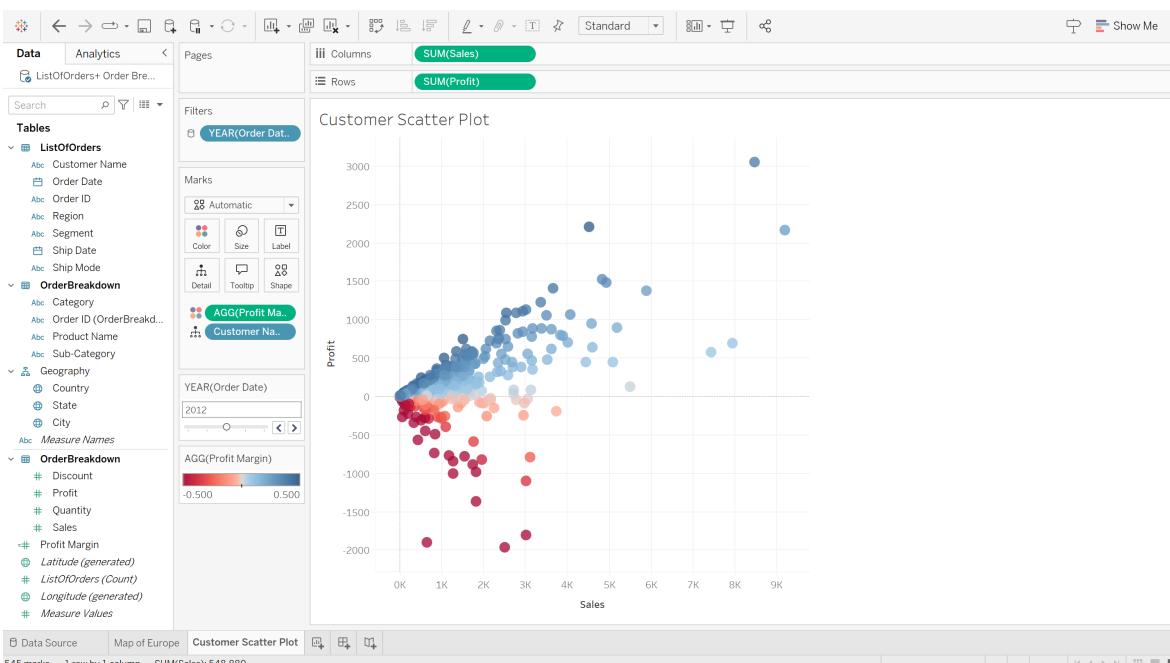
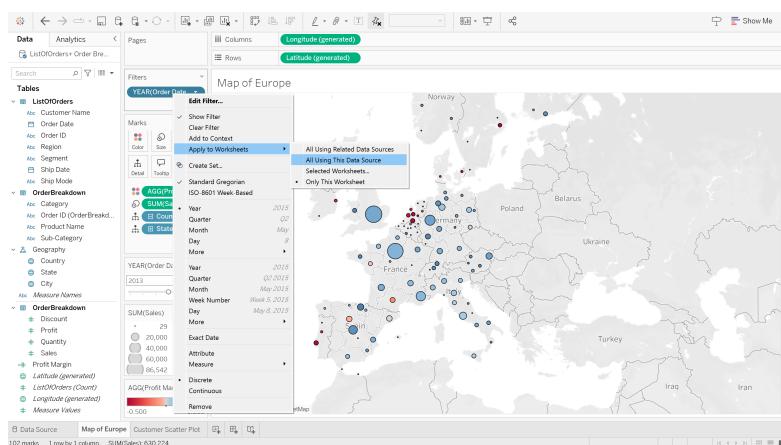
Relationships and Joins (Physical joins)

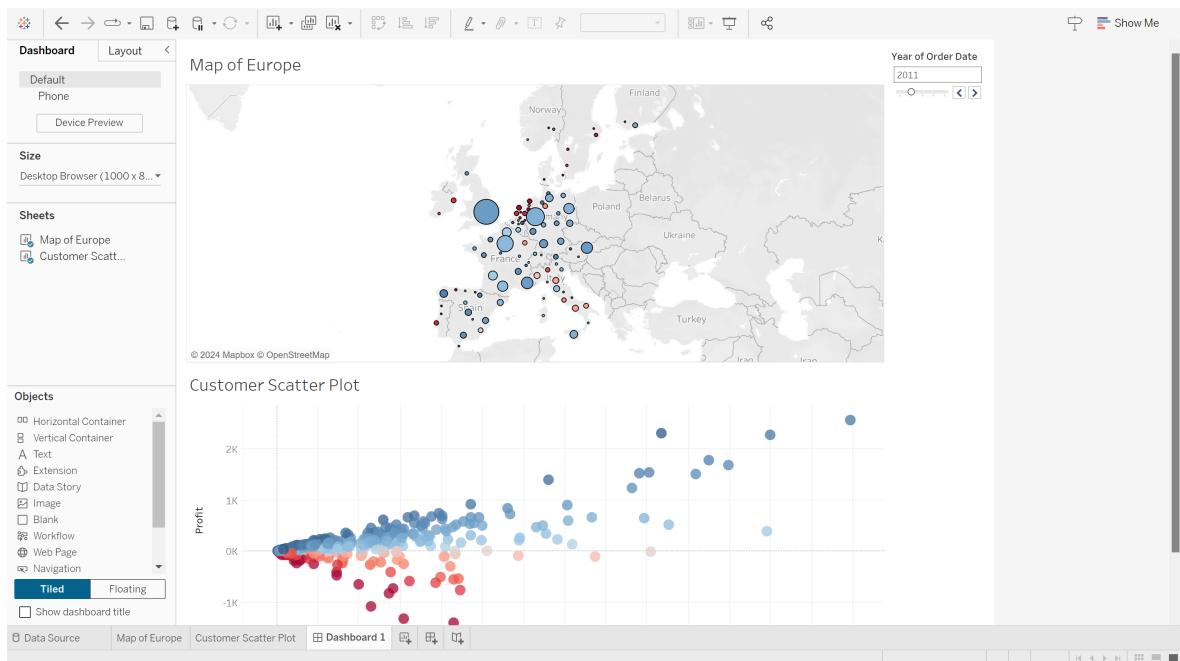


Calculated Field

Profit Margin

= SUM([Profit]) / sum([Sales])





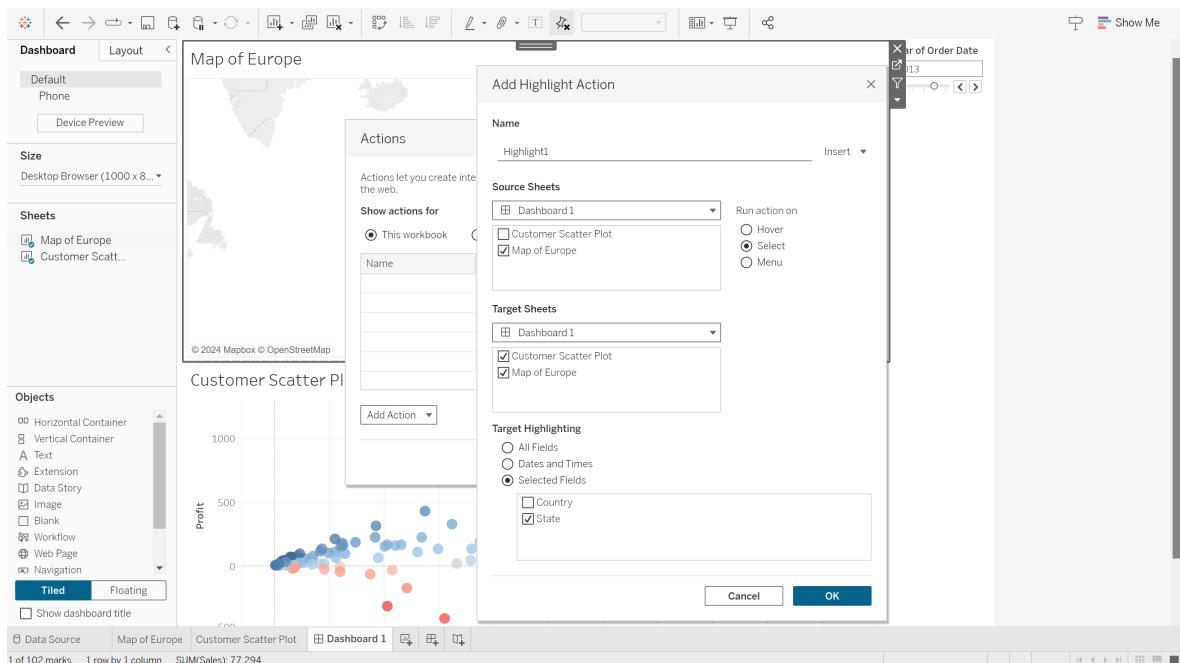
Interactive Actions - Filters

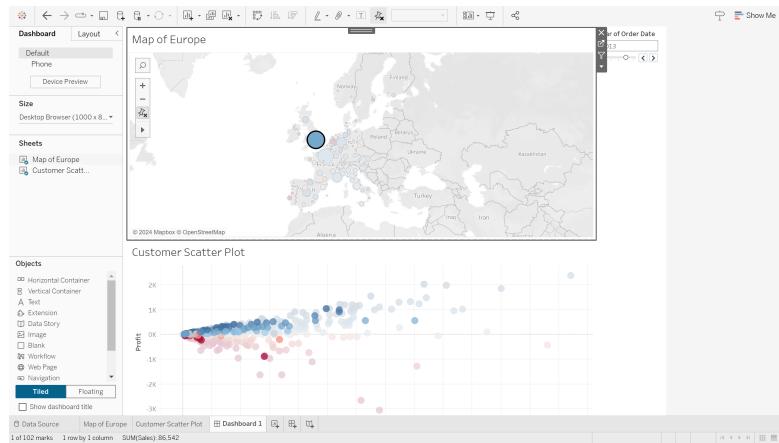
Dashboard → Actions



Interactive Actions - Highlight doesn't work like filter

but then add the state as granularity in details. Now it works





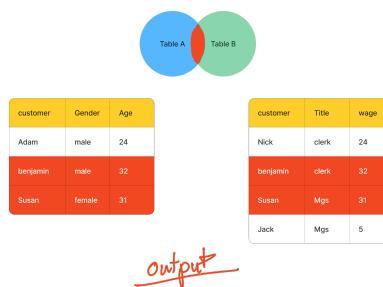
▼ Section 5 : Joining, Blending and Relationships; PLUS : Dual Axis Charts

[P1-Airline-Comparison.xlsx](#)

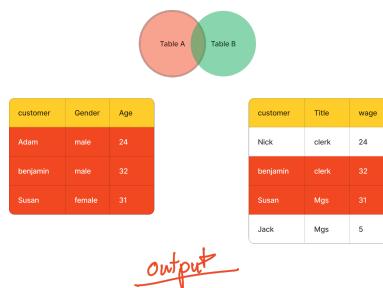
[P1-AmazingMartEU2.xlsx](#)

[P1-Brazilian-E-Commerce-Dataset.zip](#)

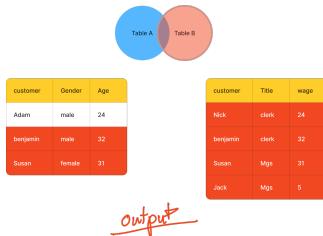
Inner Outer Join



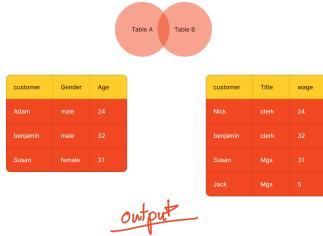
Left Outer join



Right Outer Join



Full Outer Join



There will be duplicate values with joins

Inner Joins = check with the match and result the same discard others



There will be joining on multiple fields

1st table has unique rows (

1N, 2N, 1S)

2nd table has multiple value rows

(1N, 1N, 1S, 2N)

if left join then (

1N - 1N 1N 1S, 2N - 2N, 1S - 1N 1N 1S) Error in the values

so for the error now to fix it need then use

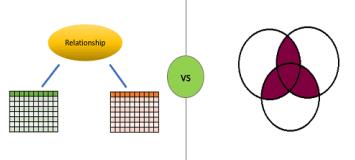
AND by taking order id and store column to check the match

(1N - 1N 1N , 2N - 2N, 1S - 1S)

Difference between Tableau relationships and Joins | Ohio

Click here to learn more about the difference between Tableau relationships and Joins or if Ties are still available in Tableau.

<https://ohiocomputeracademy.com/difference-between-tableau-relationships-and-joins/>

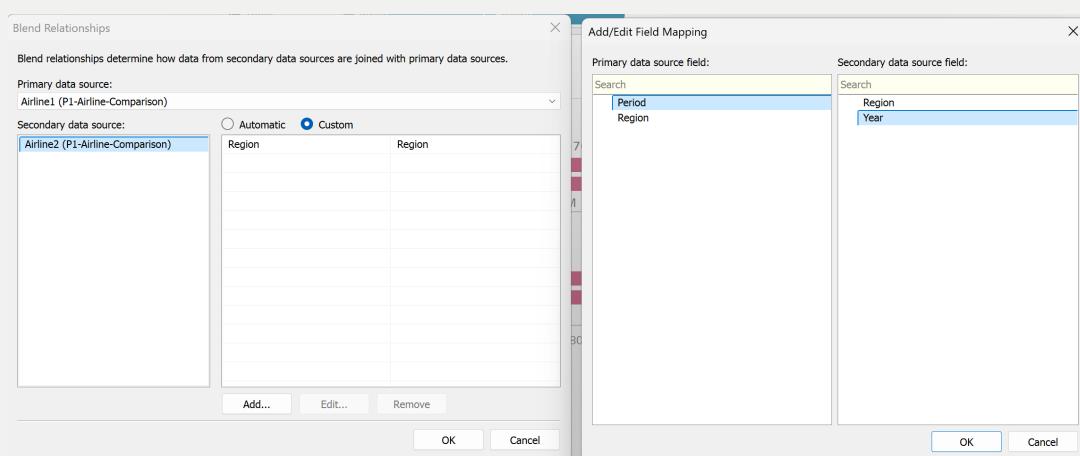
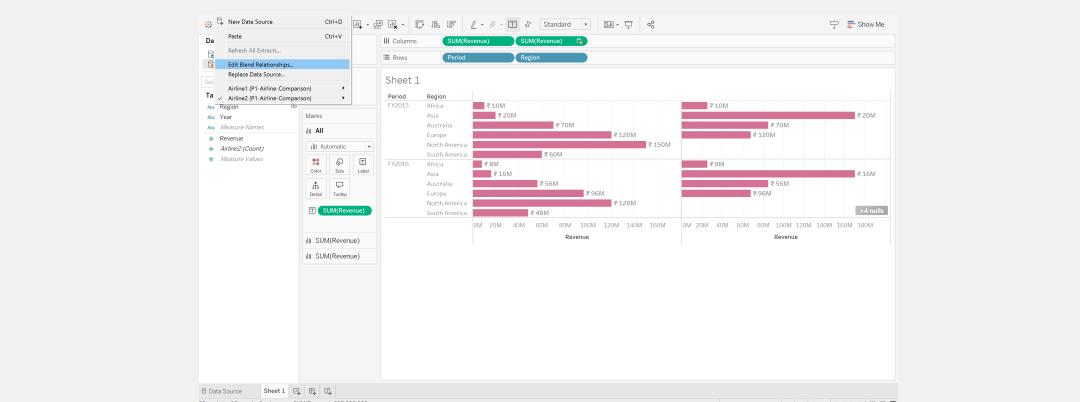
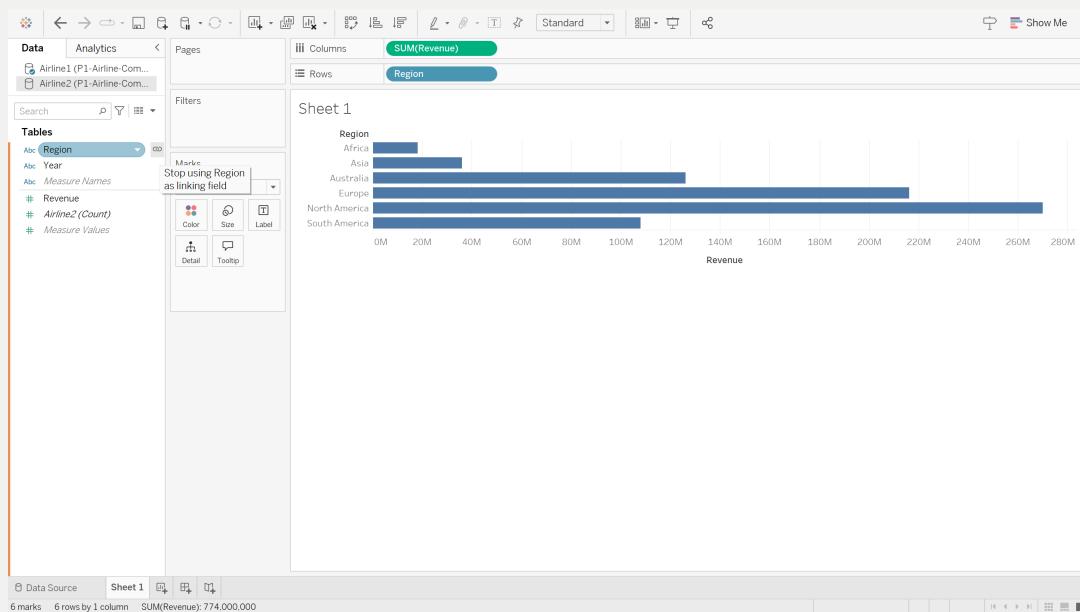


Relationship is 2 different tables

joins is a single table



Data Blending

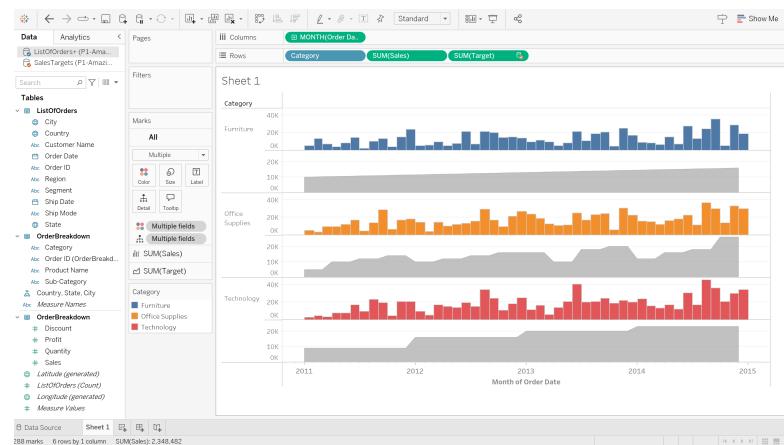


1. to use edit blend
2. change the name of the dimension

**💡 if we remove the rows or columns from the visualization
then automatically will join will be switch off (we can do it manually)**

💡 Blend is only applicable to the particular sheet. Not to all the sheets

💡 Right Join works fine most probably but depends on the data.



Blend Relationships

X

Blend relationships determine how data from secondary data sources are joined with primary data sources.

Primary data source:

ListOfOrders+ (P1-AmazingMartEU2)

Secondary data source:

SalesTargets (P1-AmazingMartEU2)

Automatic Custom

MONTH(Order Date)	MONTH(Month of Order Date)
Category	Category
YEAR(Order Date)	YEAR(Month of Order Date)

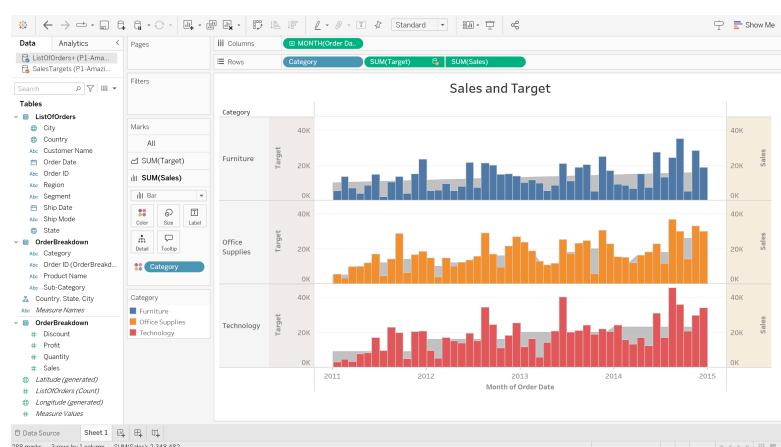
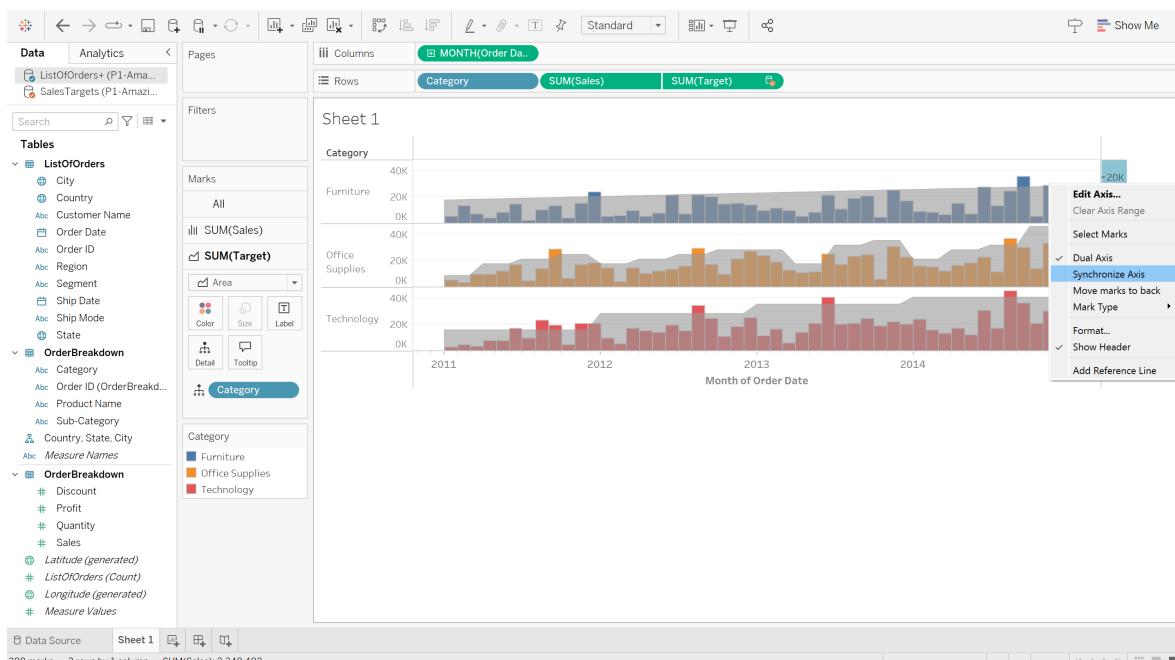
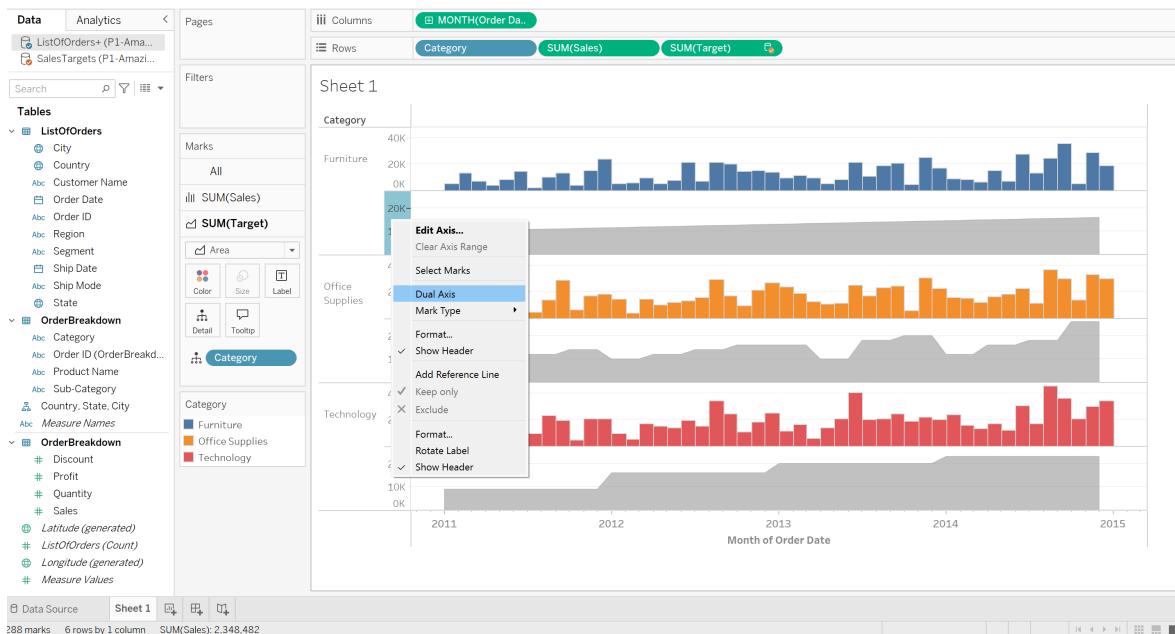
Add...

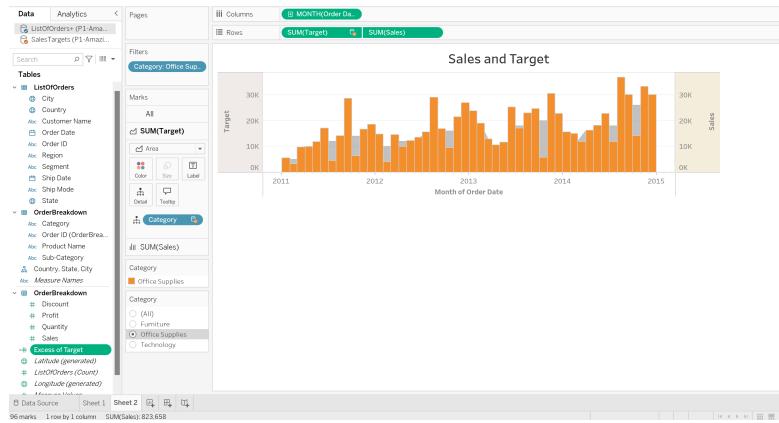
Edit...

Remove

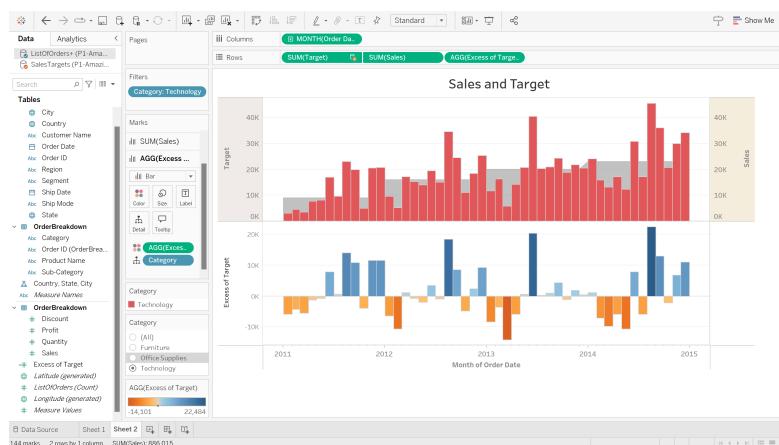
OK

Cancel





Excess of Target = $\text{SUM}([\text{Sales}]) - \text{SUM}([\text{SalesTargets (P1-AmazingMartEU2)}].[Target])$

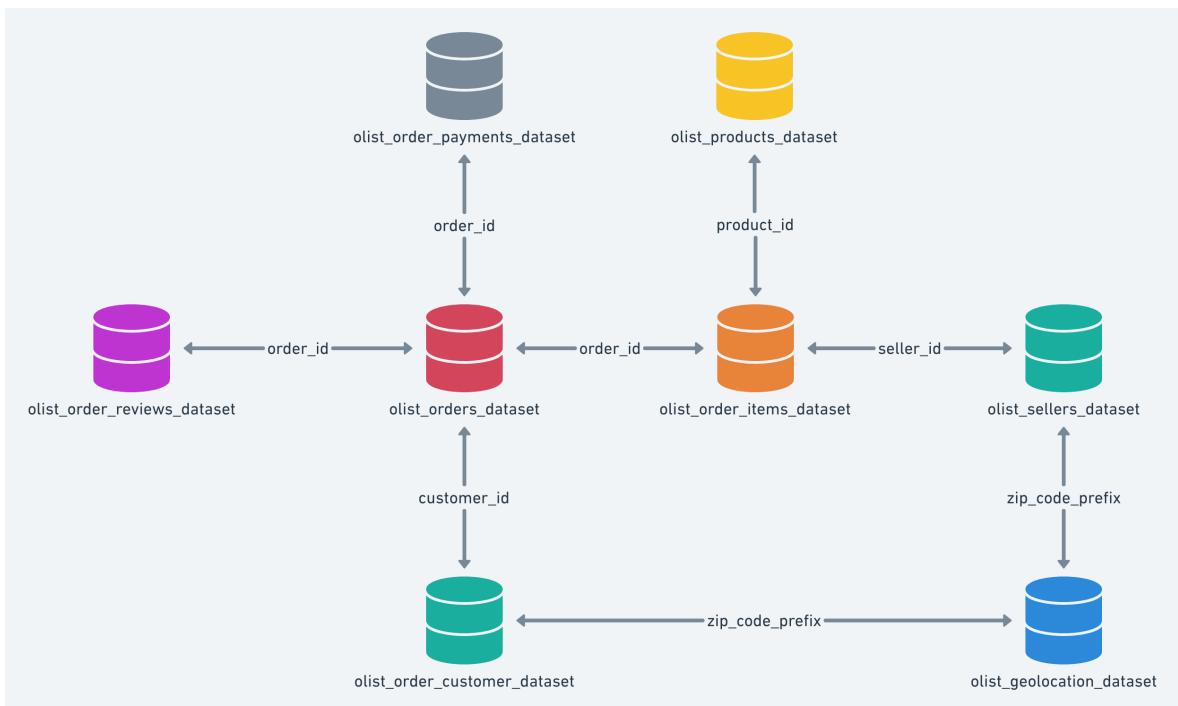


Brazilian E-Commerce Public Dataset by Olist

100,000 Orders with product, customer and reviews info

k <https://www.kaggle.com/datasets/olistbr/brazilian-e-commerce>

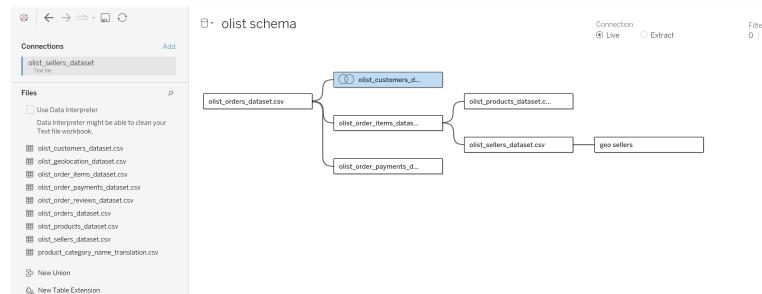




THE CHALLENGE

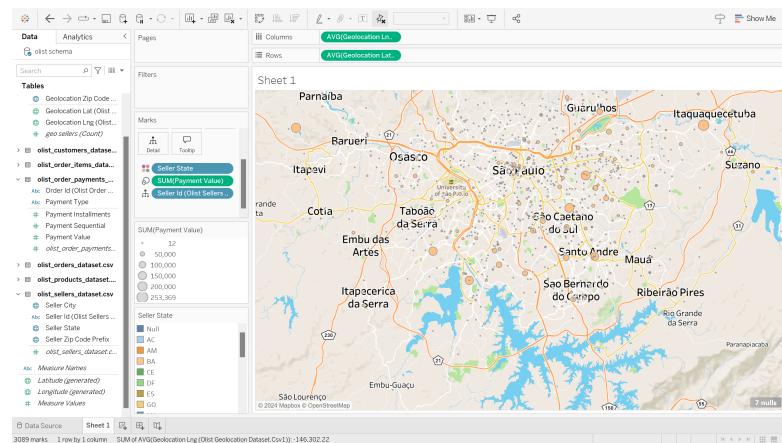
You are a Data Scientist at the Brazilian E-Commerce Store

Your manager has asked you to create a map showing sellers in their geolocations with bubbles to illustrate how much money in total payments they have received from customers



`olist_customers_dataset.csv` is made of 2 tables. ⓘ







RECAP

JOINING DATA

- different types of joins (inner, left, right)
- joins with duplicate values
- joining on multiple fields

BLENDING DATA

- a blend is like a smart join 'on the fly'
- it is a left join
- common fields with the same name are picked up automatically as the blend clause
- you can control this via the 'Data' menu
- blending occurs at the granularity of your views
- aggregation happens before the blend
- blends are unique to each worksheet

JOINING Vs BLENDING

Use joins when :

- combining data at row level

Use Blends when :

- data sources have different levels of granularity
- data sources come from different systems

Relationships

- the data model consists of a logical layer and a physical layer
- relationships are more flexible than joins
- tables are treated as separate
- however, you can combine fields on the fly
- tableau will automatically connect the data at the right level of aggregation.
- if in doubt = use a relationship

OTHERS

- Dual Axis charts

- Remember to synchronise the axes
- move charts backwards and forwards as required
- calculated fields in a blend
- values are aggregated due to the nature of blends

▼ Section 6 : Table Calculations, Advanced Dashboards, Storytelling

[P1-UK-Bank-Customers.csv](#)



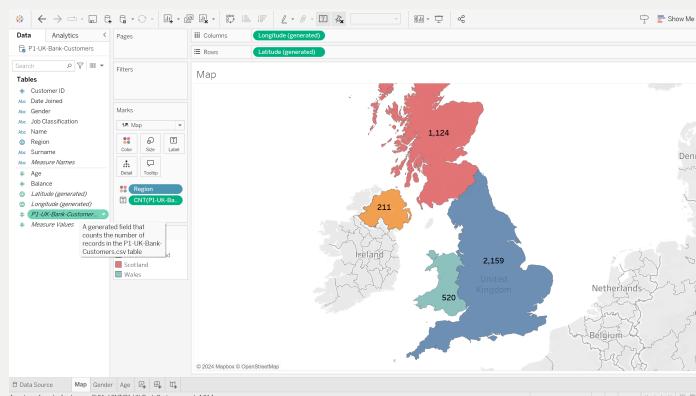
If Country / State / City / Region is not in the Global icon then

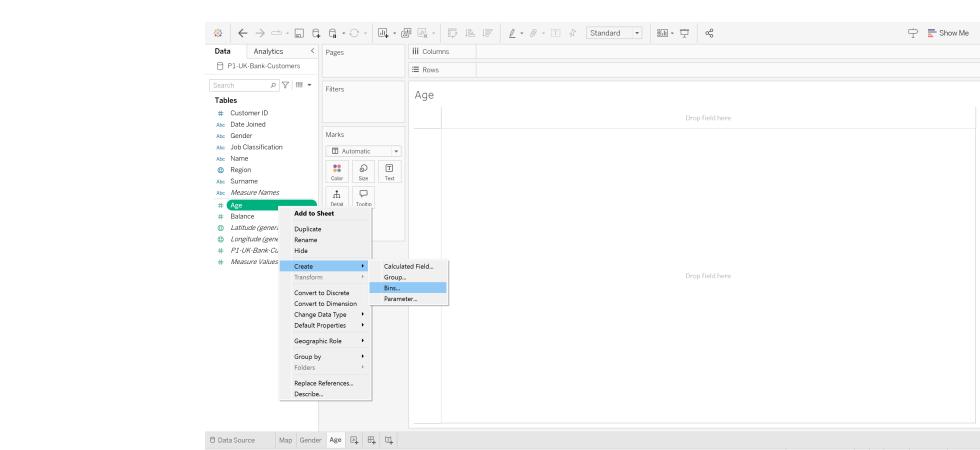
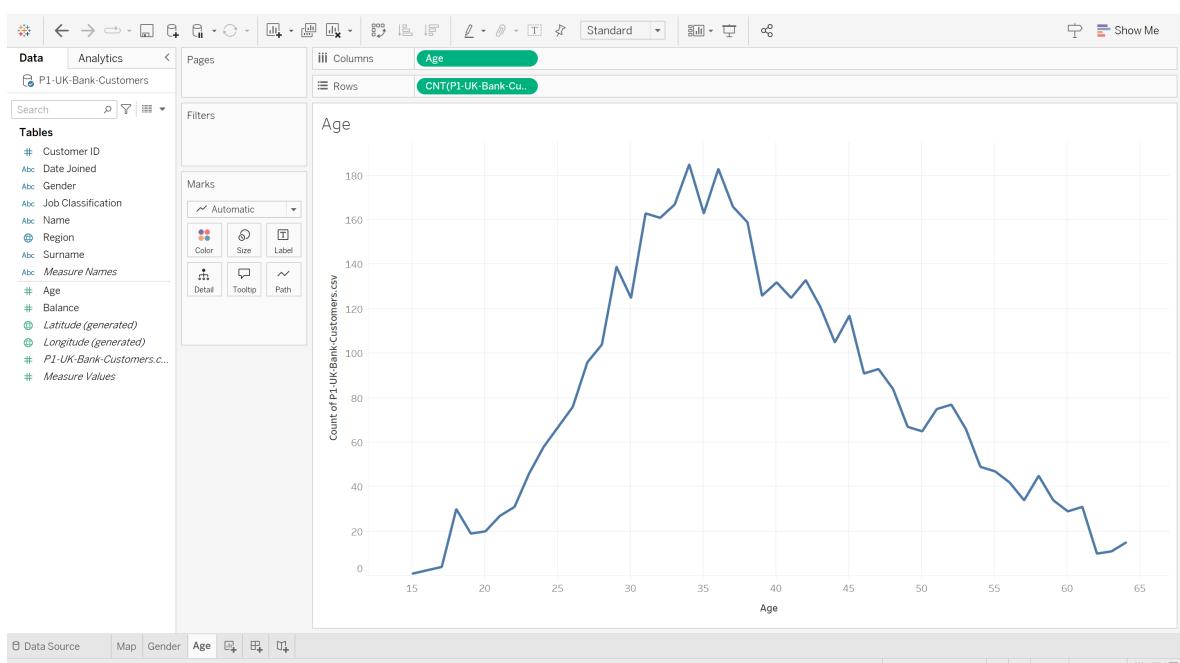
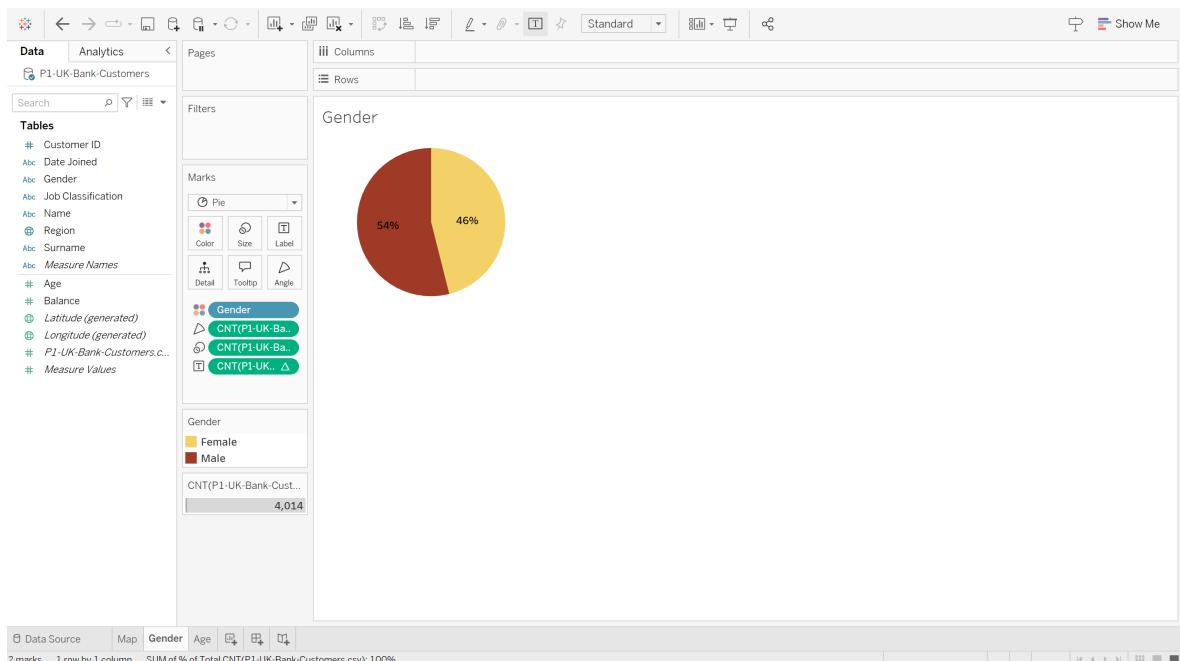
click on icon → Geographical Role → choose relevant

then map is visualized



Tableau will automatically create a count value of the data set







What are Tableau Bins?

Tableau Bins are equal-sized containers that store data values that correspond to or fit within the Bin Size. Tableau Bins divide a set of data into groups of equal intervals or sizes, resulting in a systematic distribution of data.

Data from any discrete field can be used to create Tableau Bins. Generally, Tableau users leverage **Measure Fields** to create numeric bins. Bins are very useful in data analysis as they provide a systematic data range that allows users to organize information and discover patterns in an efficient manner.

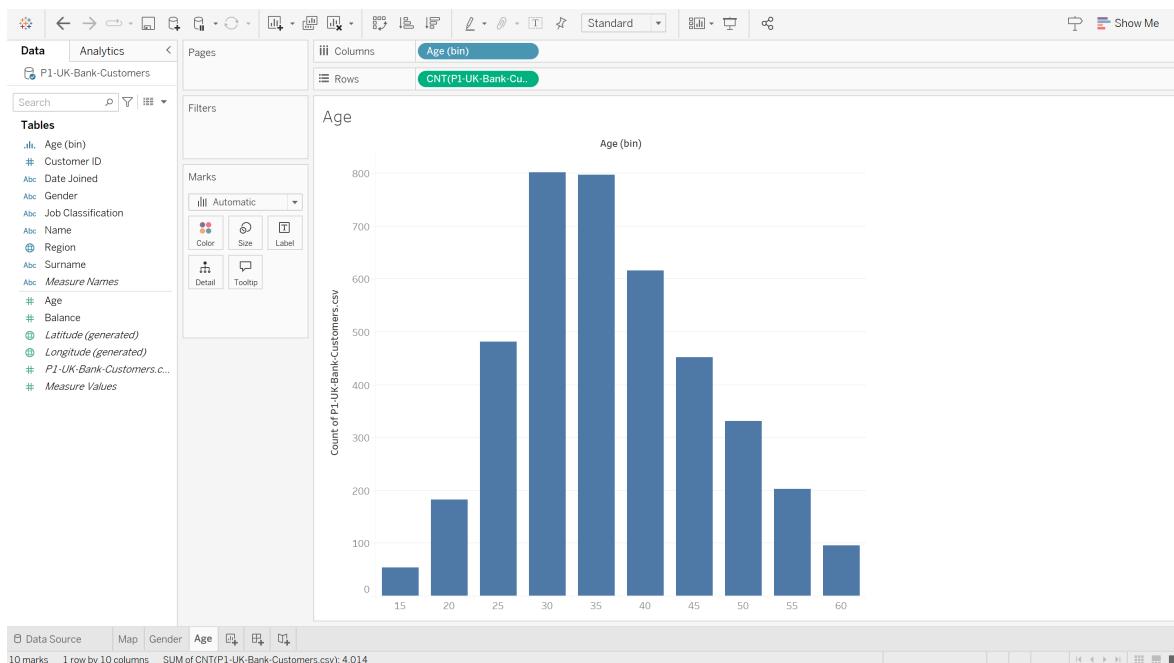
Tableau Bins cannot be used in calculations and can only be created from relational databases. Also, when we create bins from Measure Fields, Tableau saves it as a new field because the bin contains data values that are not in the same format as the original measure field.

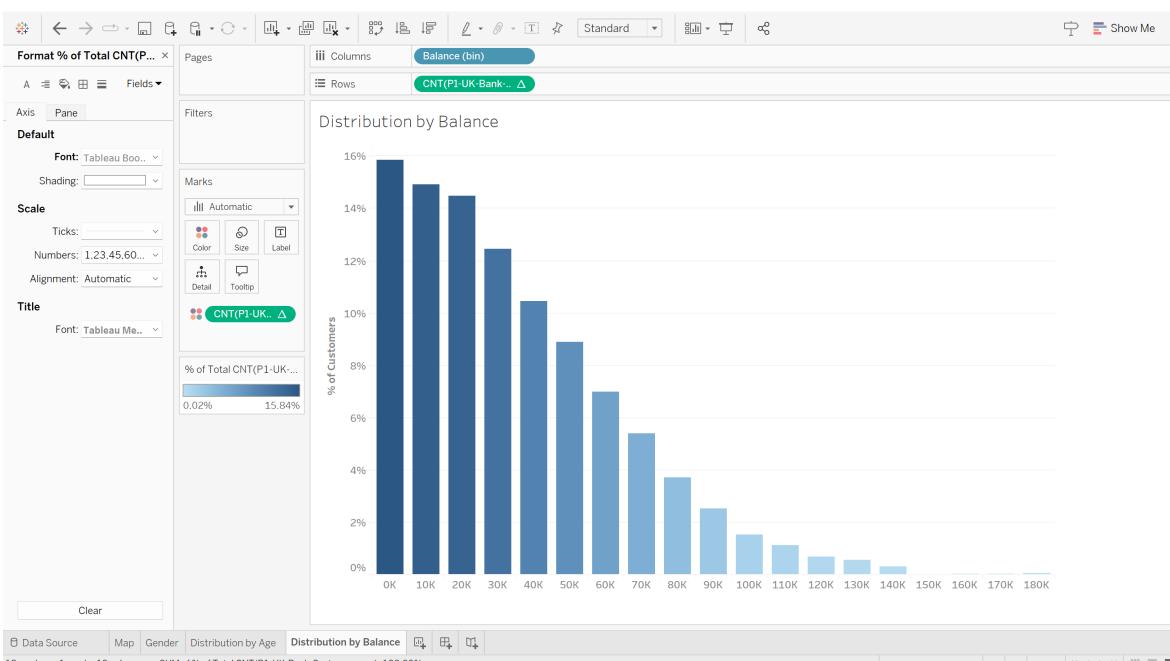
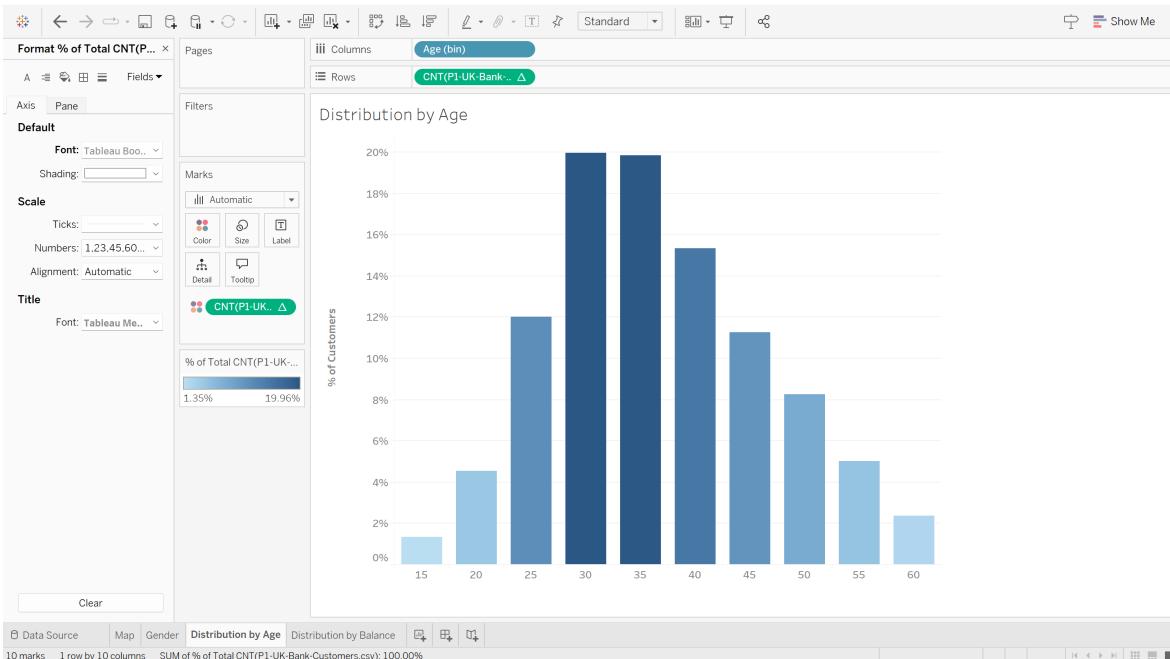
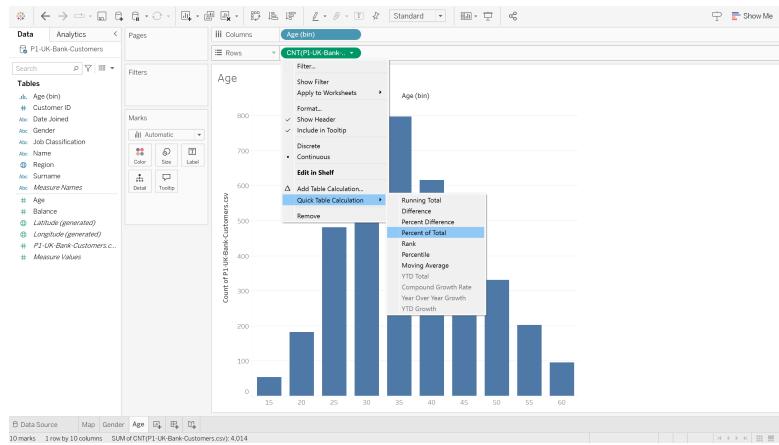
For example, suppose you want to plot a graph depicting sales against a range of ages ranging from 20 to 60. For doing that, you can create bins for age groups and analyze sales for each age group by using the bin functionality.

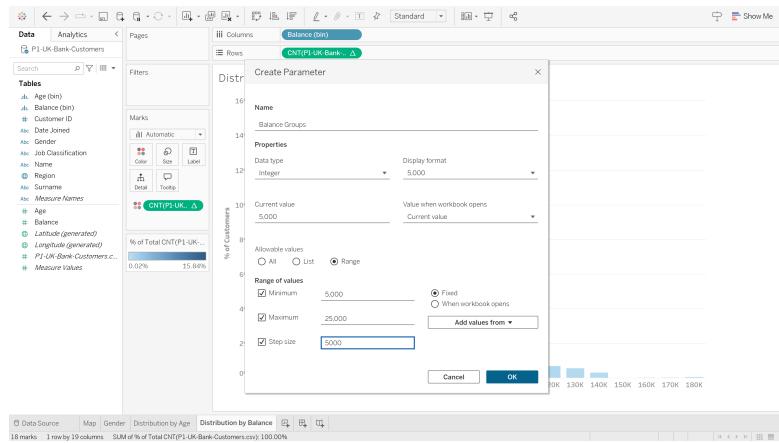
The screenshot shows the Tableau Data Source interface. A modal dialog box titled "Edit Bin (Age)" is open in the center. It displays the following configuration:

- New field name: Age (bin)
- Suggest Bin Size: 5
- Range of Values:
 - Min: 15
 - Max: 64
 - Bin ID: 49

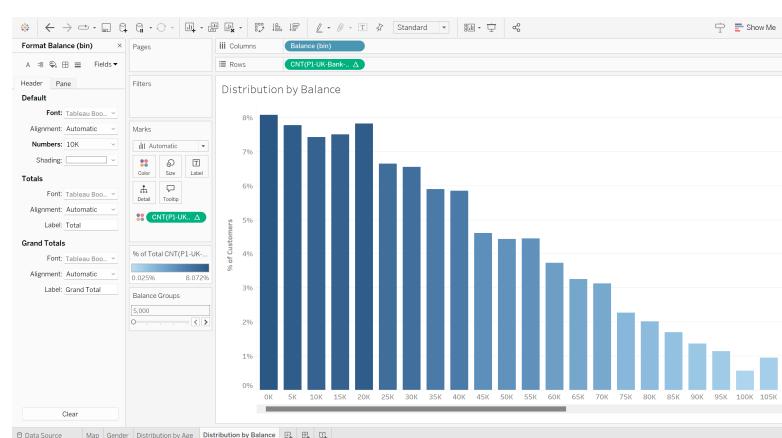
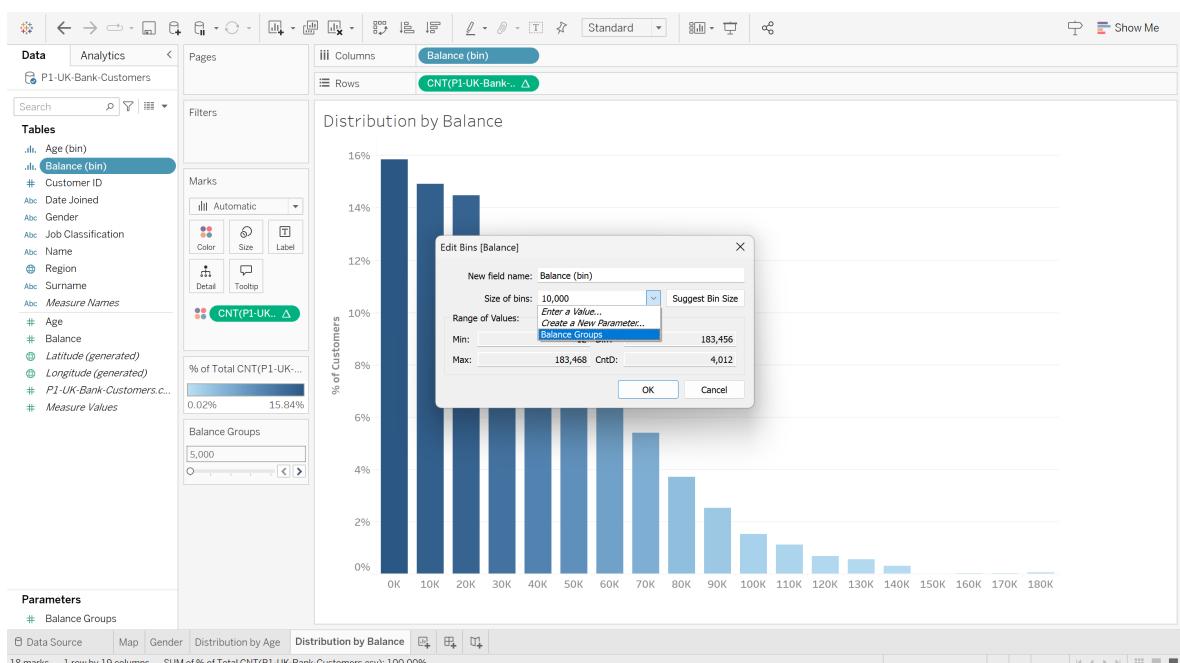
At the bottom of the dialog are "OK" and "Cancel" buttons. The background shows the Tableau interface with a table named "P1-UK-Bank-Customers" and various fields listed in the sidebar.

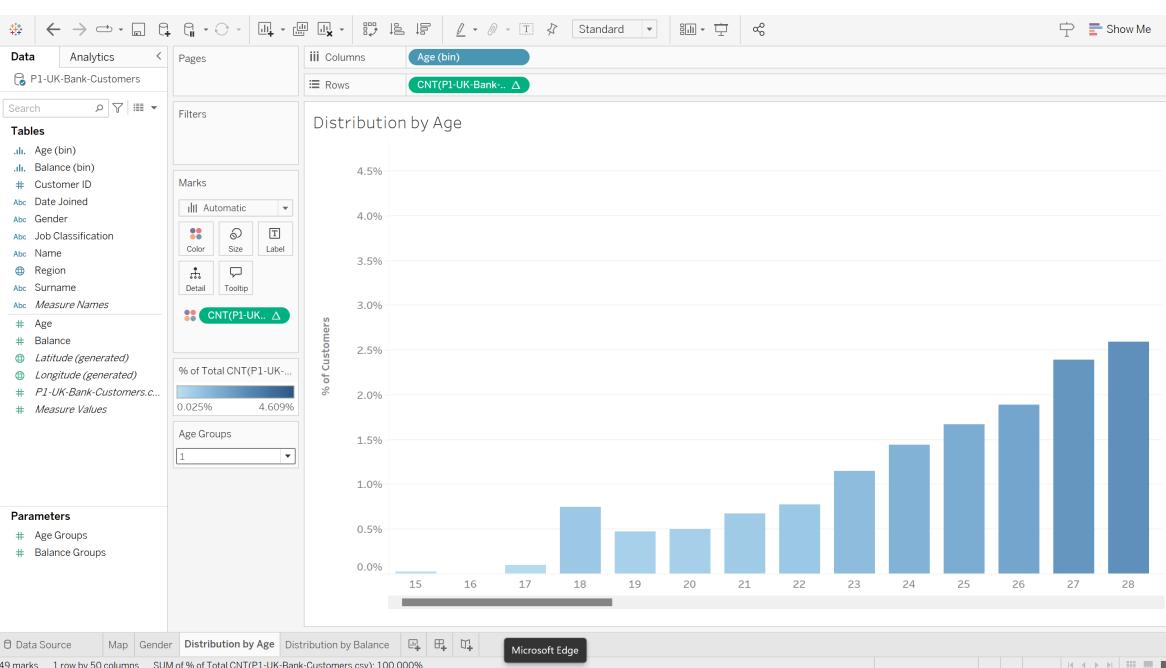
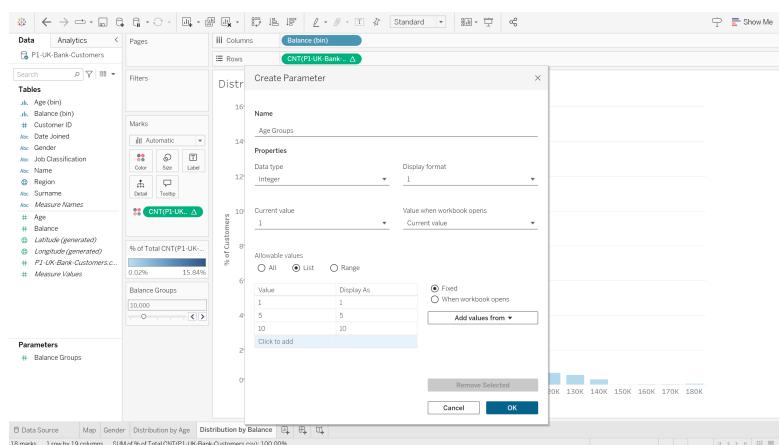
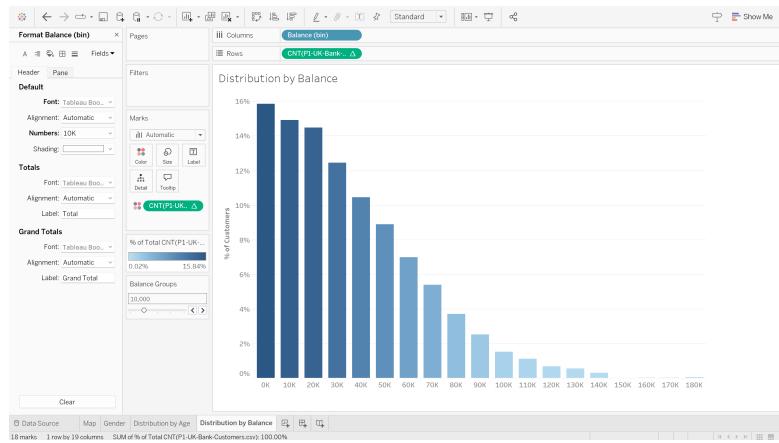


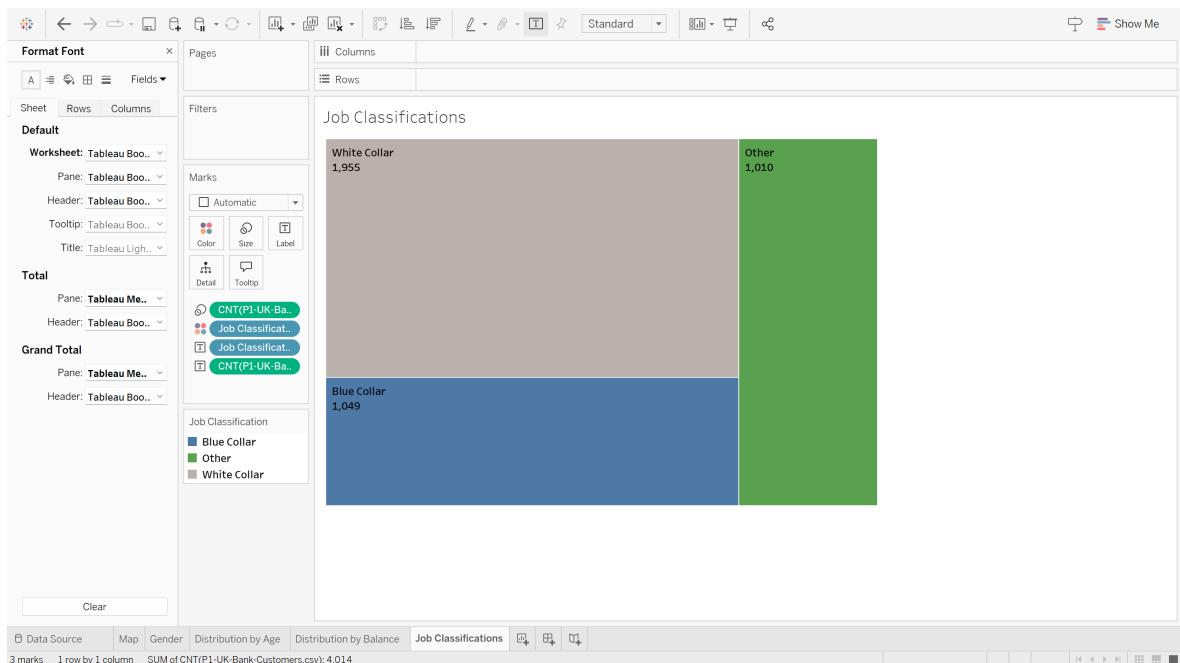
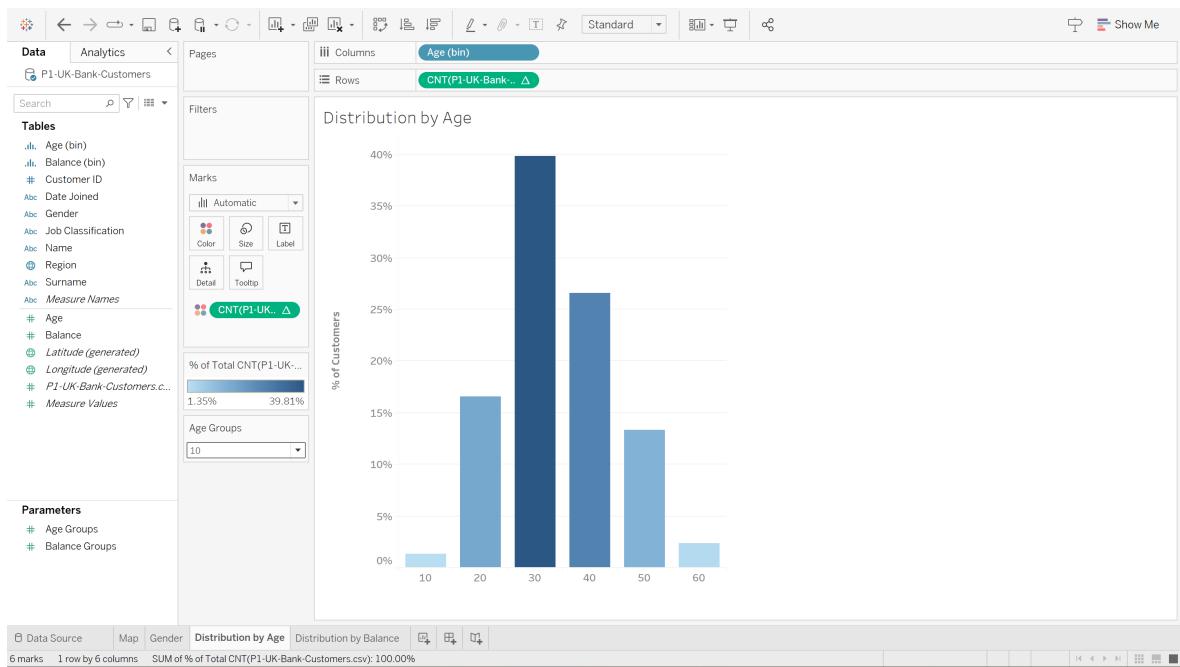


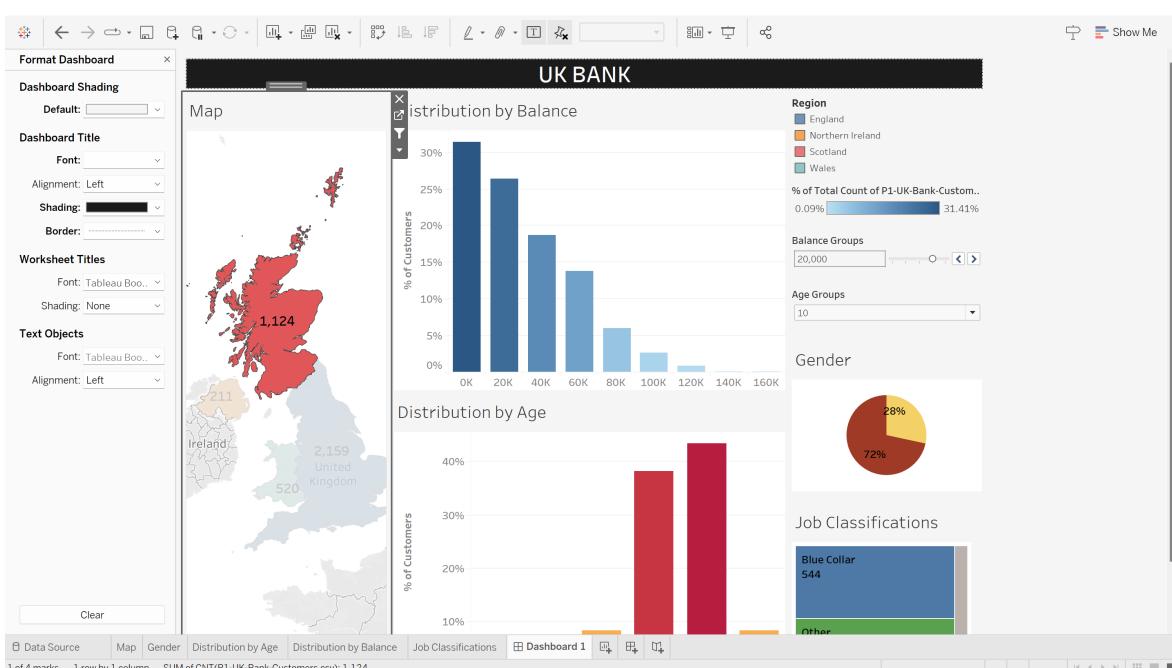
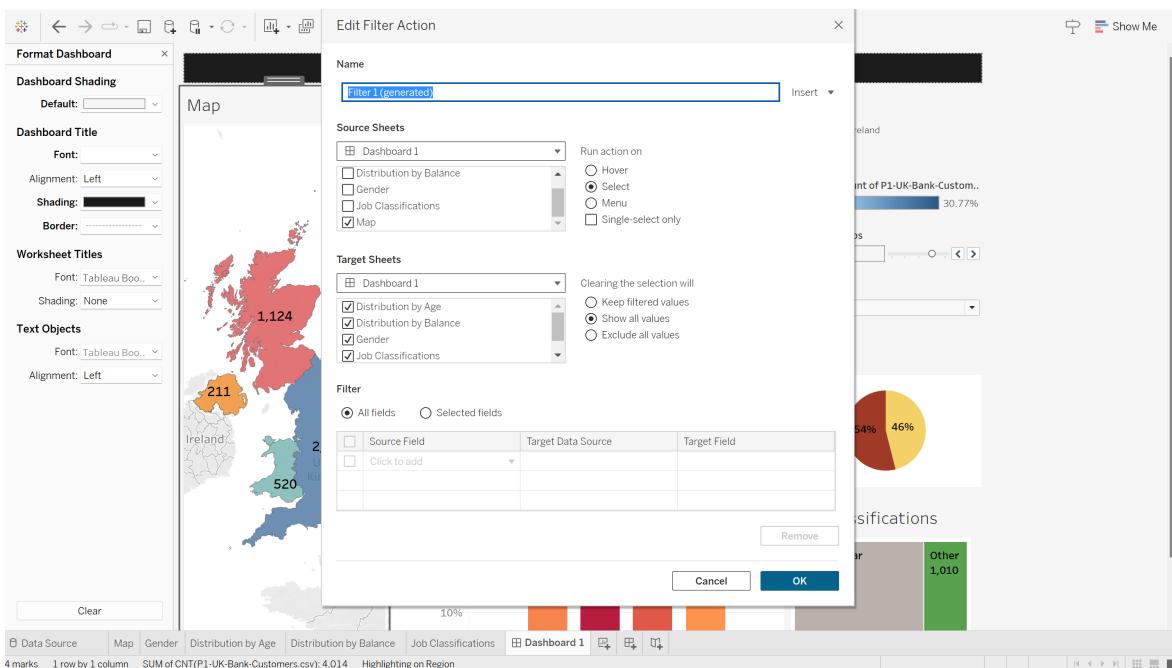
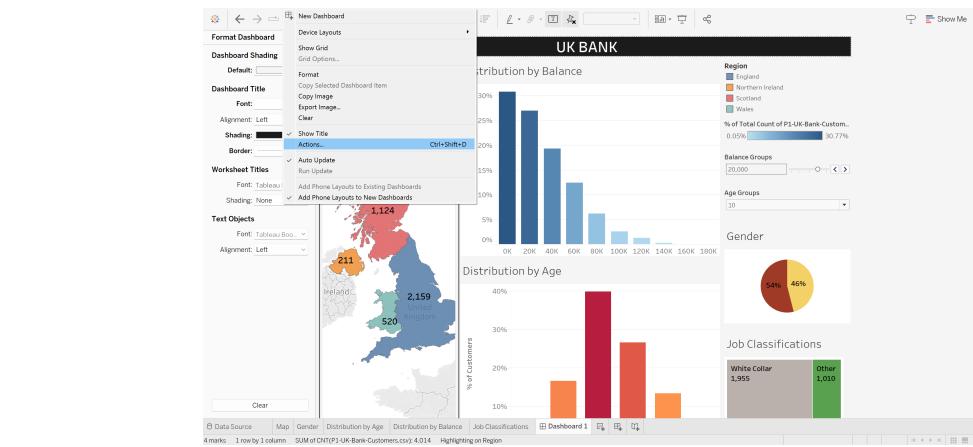


💡 In Tableau, a **parameter is a **workbook variable that can replace a constant value in a calculation, filter, or reference line**. Parameters can be used to change the behavior of a visualization and allow users to interact with their data. For example, users can choose from a list of predefined values or enter specific values themselves. Parameters can also be used to create interactive dashboards where users can change parameters to explore different scenarios or datasets.**

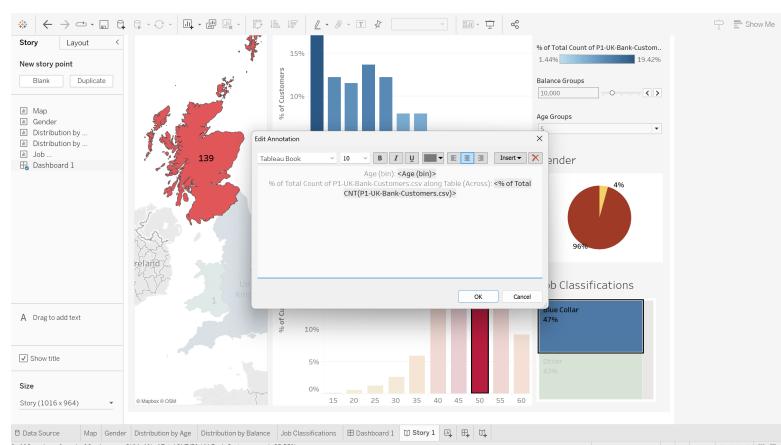
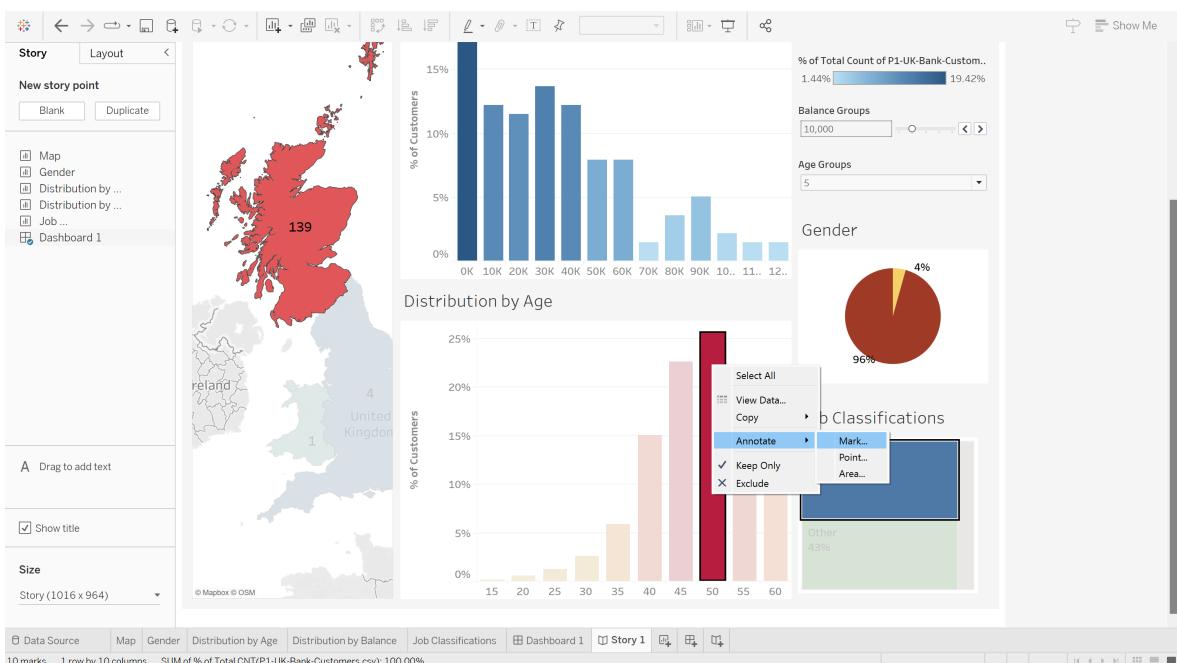
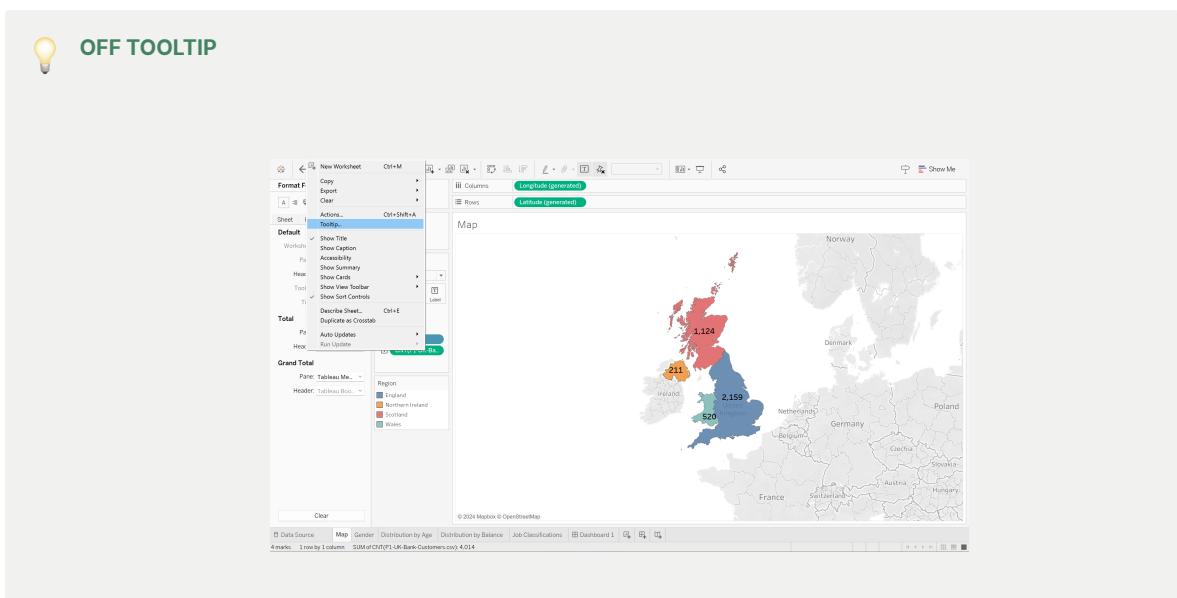








OFF TOOLTIP



[6. Table Calculations, Advanced Dashboards, Storytelling.pdf](#)

▼ **Section 7 : Advanced Data Preparation**

[P1-PersonalVehicleSalesGlobal.xlsx](#)

Data Interpreter

pc_sales (P1-PersonalVehicleSalesGlobal)

Table Details

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
null	null	null	null	Estimated figures	null	null	null	null	null	null
REGIONS/COUNTRIES	null	null	null	2005	2006	2007	2008	2009	2010	2011
EUROPE	null	null	null	17906.455	18.685.556	19.618.588	18.821.599	16.608.761	16.499.863	17.167.600
EU 28 countries + EFTA	null	null	null	15.622.035	15.961.138	16.147.274	14.911.880	14.533.115	13.830.694	13.642.659
EU 15 countries + EFTA	null	null	null	14.565.695	14.820.182	14.842.186	13.602.038	13.668.808	12.984.549	12.815.435
AUSTRIA	null	null	null	307.915	308.594	298.182	293.697	319.403	328.563	356.145
BELGIUM	null	null	null	480.088	526.141	524.795	535.947	476.194	547.340	572.211
DENMARK	null	null	null	148.819	156.936	162.686	150.199	112.454	153.858	170.036
FINLAND	null	null	null	148.161	145.700	125.608	139.669	90.574	111.968	126.123
FRANCE	null	null	null	2.118.042	2.045.745	2.109.672	2.091.369	2.302.398	2.251.669	2.204.229
GERMANY	null	null	null	3.319.259	3.467.961	3.148.163	3.090.040	3.807.175	2.916.259	3.173.634
GREECE	null	null	null	269.728	267.669	279.745	267.295	219.730	141.501	97.680
ICELAND	null	null	null	18.060	17.129	15.942	9.033	2.113	3.106	5.038
IRELAND	null	null	null	171.742	176.484	186.325	151.607	57.453	88.446	89.911
ITALY	null	null	null	2.244.108	2.335.462	2.494.115	2.161.359	2.159.465	1.961.580	1.749.740

Go to Worksheet

pc_sales (P1-PersonalVehicleSalesGlobal)

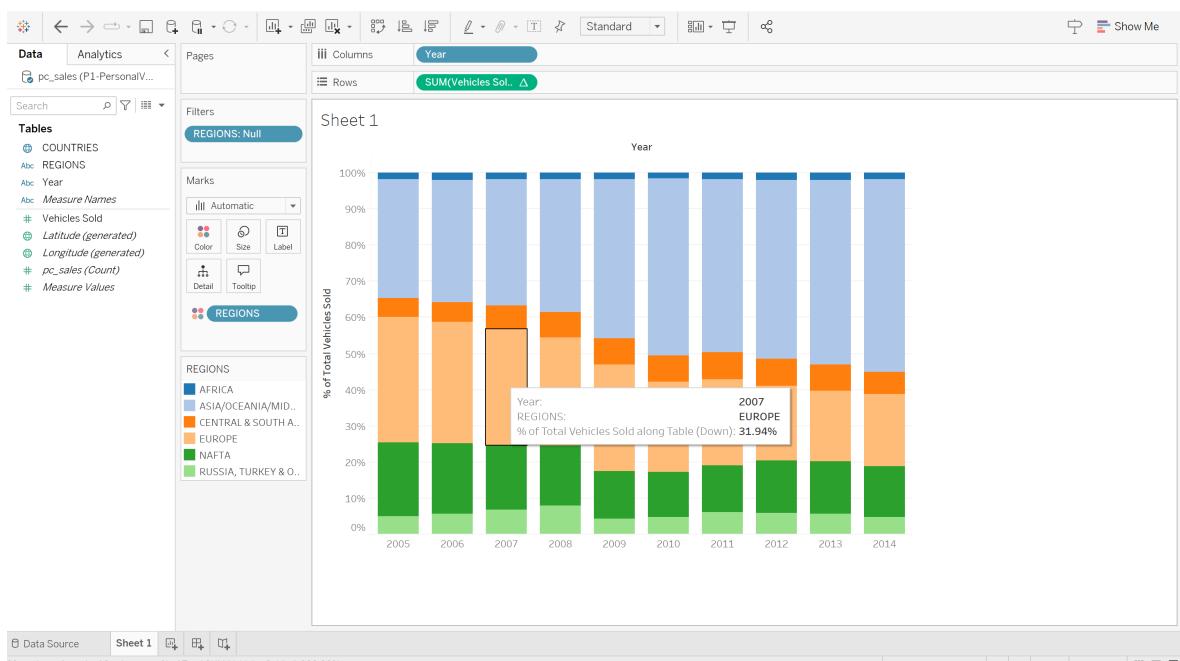
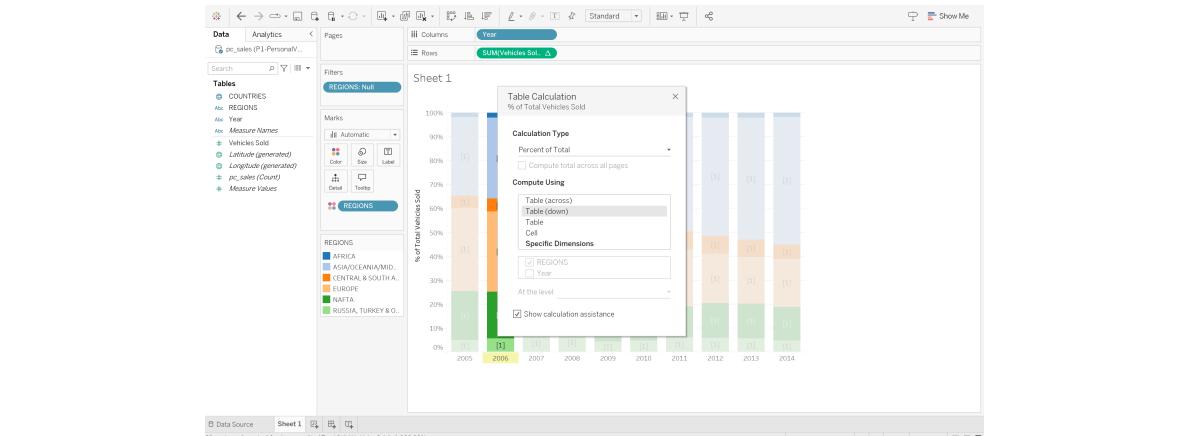
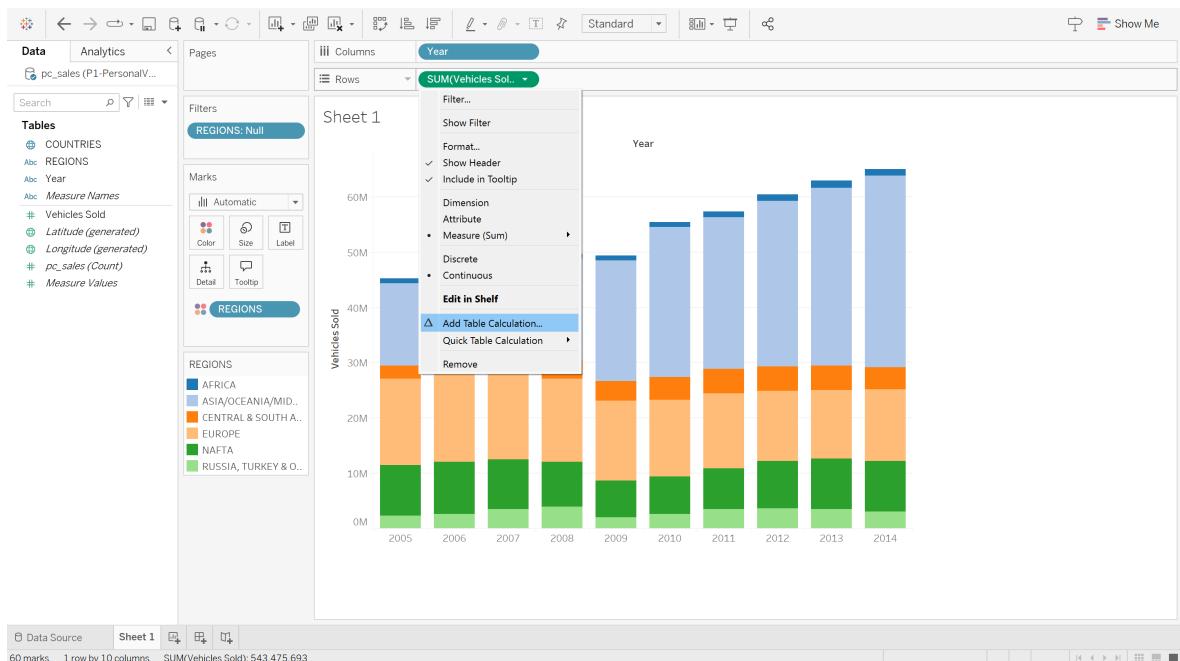
Table Details

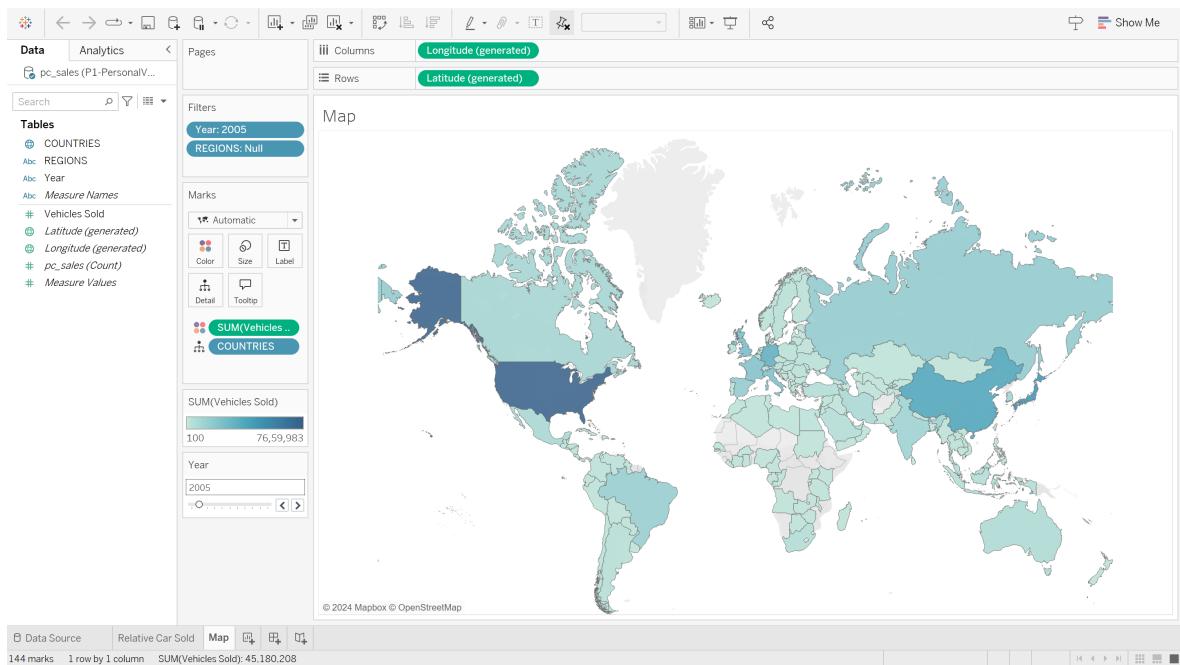
F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
REGIONS/COUNTRIES	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EUROPE	17906.455	18.685.556	19.618.588	18.821.599	16.608.761	16.499.863	17.167.600	16.191.359	15.941.854	16.060.143
EU 28 countries + EFTA	15.622.035	15.961.138	16.147.274	14.911.880	14.533.115	13.830.694	13.642.659	12.567.993	12.343.996	13.013.515
EU 15 countries + EFTA	14.565.695	14.820.182	14.842.186	13.602.038	13.668.808	12.984.549	12.815.435	11.773.371	11.554.834	12.113.882
AUSTRIA	307.915	308.594	298.182	293.697	319.403	328.563	356.145	336.010	319.035	303.318
BELGIUM	480.088	526.141	524.795	535.947	476.194	547.340	572.211	486.737	486.065	482.939
DENMARK	148.819	156.936	162.686	150.199	112.454	153.858	170.036	170.763	182.086	189.051
FINLAND	148.161	145.700	125.608	139.669	90.574	111.968	126.123	111.251	103.455	106.236
FRANCE	2.118.042	2.045.745	2.109.672	2.091.369	2.302.398	2.251.669	2.204.229	1.898.760	1.790.456	1.795.885
GERMANY	3.319.259	3.467.961	3.148.163	3.090.040	3.807.175	2.916.259	3.173.634	3.082.504	2.952.431	3.036.773
GREECE	269.728	267.669	279.745	267.295	219.730	141.501	97.680	58.482	58.694	71.218
ICELAND	18.060	17.129	15.942	9.033	2.113	3.106	5.038	7.902	7.274	9.536
IRELAND	171.742	176.484	186.325	151.607	57.453	88.446	89.911	79.498	74.367	95.344
ITALY	2.244.108	2.335.462	2.494.115	2.161.359	2.159.465	1.961.580	1.749.740	1.403.010	1.304.648	1.360.293
LUXEMBOURG	48.517	50.837	51.332	52.359	47.265	49.726	49.881	50.398	46.624	49.793
NETHERLANDS	465.196	483.999	504.300	499.980	387.699	482.531	555.812	502.544	416.717	387.835

Go to Worksheet

⇒ then click on review results

1. now edit the file in the excel
2. upload the file in tableau
3. select the year value and pivot
4. then click the regions to split for knowing the feature
5. rename the column name





▼ Section 8 : Clusters, Custom Territories, Design Features

[P1-StartupExpansion.xlsx](#)

[P1-US-Cities-Population.csv](#)



Section 8 : Challenge

You are data scientist working for a laundry-pickup services start up WeWashUSleep. This is a relatively small company and they cannot compete with the big players in major cities. The company's strategy is to build a vast network in the smaller cities.

WeWashUSleep already had a strong presence in 140 locations and recently opened stores in 10 new cities. Additionally, the company has 2 separate sales regions.

you have assigned the following two analytics tasks.

1

identify which of the 2 sales regions is performing better (ie., outperforms the other in 2 of the following 3 metrics)

- average revenue per city
- avg marketing spend per city (tips : less is better)
- avg ROMI (return on marketing investment) per city (revenue / marketing spend)

2

identify which of the 10 new locations have the best potential for the company to invest more funds into marketing



Data Analysis → Cluster

Cross Database Joins

▼ Section 9 : Tableau Toolkit

[P1-Section-9-Challenge-I.pdf](#)

[P1-nyc-park-crime-stats-q1-2018.pdf](#)

[P1-NYC-Parks-and-Public-Spaces-Spatial-Files.zip](#)

[P1-Section-9-Challenge-II.pdf](#)

[P1-quarterly-census-of-employment-and-wages-annual-data-beginning-2000.csv](#)



How to import data from PDF

Spatial file connections

Viz in Tooltips



New York City Parks Safety

We have been hired by a community forum to analyse crime incidents occurring at New York City (NYC) parks. This is in support of their efforts to lobby for safer parks. We need to design an attention-grabbing visualisation which they will use to motivate for more police patrols in NYC public parks. We are required to analyse the crime incidents reported to the New York Police Department (NYPD), which have occurred at NYC parks during the first quarter of 2018. We have been supplied the data, but unfortunately the data is only available in PDF format. Note: Central Park is not included in the review Furthermore, they require the results to be displayed using a map and it needs to include the actual park layout and size. Ensure proper use of tooltips and filtering per borough.

Disclaimer: Case study was developed for educational purposes. Any reference to real facts or real events is purely coincidental.



Spatial Files

Note: To connect to spatial files, you must include all of the following files in the same directory:

For Esri shapefiles: The folder must contain `.shp`, `.shx`, `.dbf`, and `.prj` files as well as `.zip` files. When connecting to Esri shapefiles in Tableau Cloud or Tableau Server, the file must be packaged in a `.zip`.

For Esri File Geodatabases: The folder must contain the File Geodatabase's `.gdb` or the `.zip` of the File Geodatabases's `.gdb`. When connecting to Esri shapefiles in Tableau Cloud or Tableau Server, the Esri File Geodatabase must be packaged with the extension `.gdb.zip`.

For MapInfo tables (Tableau Desktop only): The folder must contain `.TAB`, `.DAT`, `.MAP`, and `.ID` or `.MID` and `.MIF` files.

For GeoJSON files: The folder must contain the `.geojson` file.(No other files are required.)

For TopoJSON files: The folder must contain the `.json` or `.topojson` file. (No other files are required.)



New York State Salary Analysis

You are required to build a visualisation within Tableau to enable the analysis of average salary across industries for the State of New York. Analysis of the following is required:

1. Average Annual Salary by County displayed on a map
2. Top 5 highest earning industries by County
3. Time series analysis of average annual salary by County.

The client specifically mentioned that they do not want separate graphs on different sheets, and also don't want to work with a dashboard. They would like all information contained within a single sheet, with pop-up charts while the map is being explored.

Disclaimer: Case study was developed for educational purposes. Any reference to real facts or real events is purely coincidental.