HEEA

Transforming Data into Decisions

Tableau – VSTV Training

SARAJEVO

NOVEMBER 2025

tableau

Training plan – high level

Description	Date
~~Day 1 – Basic training (done)~~	~~07.11.2025~~
Day 2 – Hands On	13.11.2025
Day 3 – Hands on Vis, Create Dashboards	17.11.2025
Day 4 – Hands on Dashboards 2, Mapping with Tableau	18.11.2025

This presentation can be downloaded from

https://edukacija.heea-consulting.com/

HEEA

Day 2 agenda

- ✓12:00 – 14:00 Tableau concepts
- ✓**14:00: 14:10 – coffee break**
- ✓14:10: 15:10 – Tableau hands on
- ✓**15:10: 15:20 – coffee break**
- ✓15:20: 16:00 – Tableau hands on

HEEA

Objectives – Day 2

Tableau Concept

- Dimensions and Measures
- Marks

Hands-on

- Follow instructions to create viz.

Hands-on part 2

- Re-create sample charts

tableau

HEEA

Data types

Icon	Data type
Abc	Text (string) values
	Date values
	Date & Time values
#	Numerical values (integer or decimal)
T|F	Boolean values (relational only)
	Geographic values (used with maps)
	Image role (used with image link URLs)
	Cluster Group (used with Find Clusters in Data)

tableau

HEEA

Data field roles and types - Dimensions

Dimensions group or segment the data. Dimensions typically contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize your data. Dimensions affect the level of detail in the view.

- We can watch through our data with the help of a dimension.
- It can be any information, such as qualitative or categorical information.
- Let's take an example of a sample super store database; if we try to display "profit" for each data, we need a "state" as a dimension. As mentioned earlier state is the independent variable
- The major point to remember is we can not sum the dimension of the data, such as state, ID, category,

HEEA

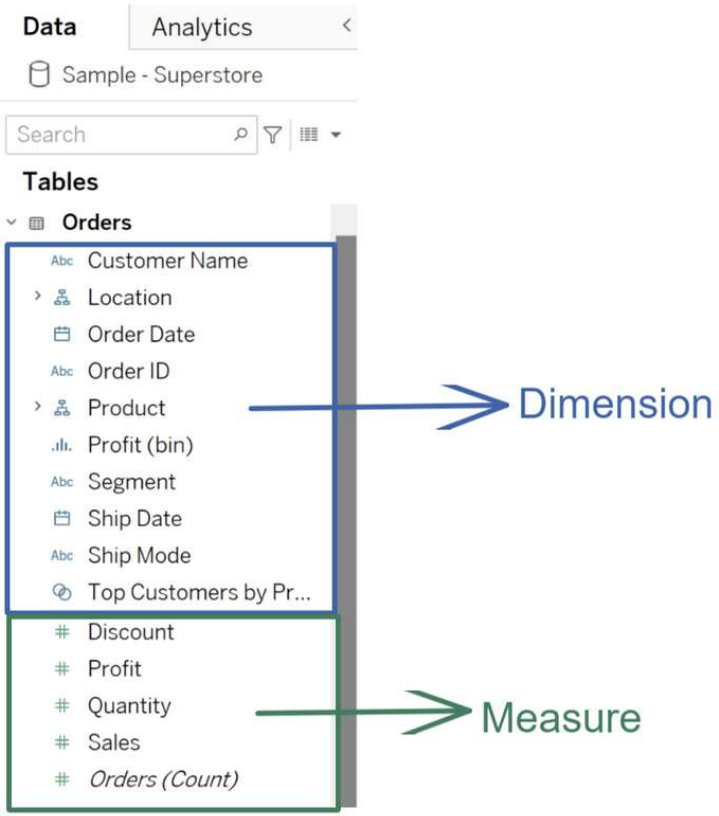
Data field roles and types - Measures

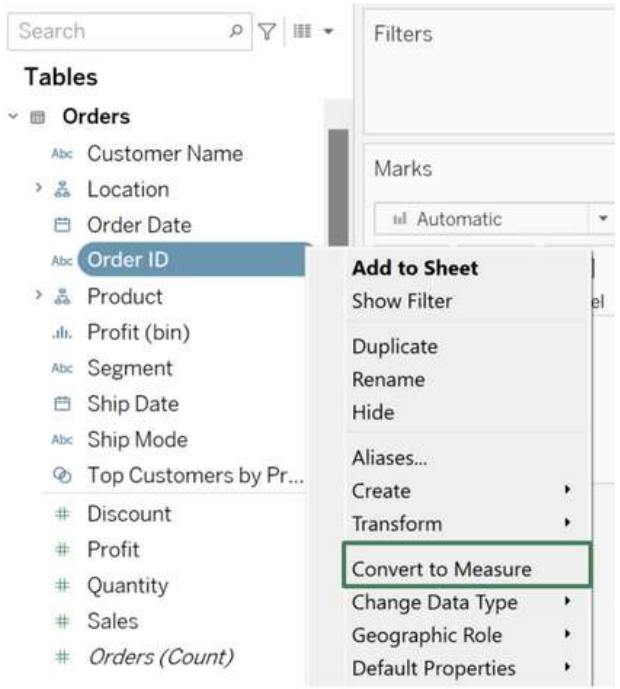
Measures are aggregated. Measures typically contain numeric, quantitative values that you can measure.

- Measure name itself brief about it; we can measure our data because it contains the numeric value which will help us to identify data
- It is a dependent variable in the tableau;
- If data or fields contain a numeric value, then it is treated as the measure
- It can be any value such as profit, discount or sales, etc.
- Let's take an example of a sample superstore database; if we try to display profit for each "State", we need a "profit" as a measure.
- We can SUM, AGGREGATE, MIN or MAX, etc of the measure because it contains a numeric

HEEA

Blue vs Green data type





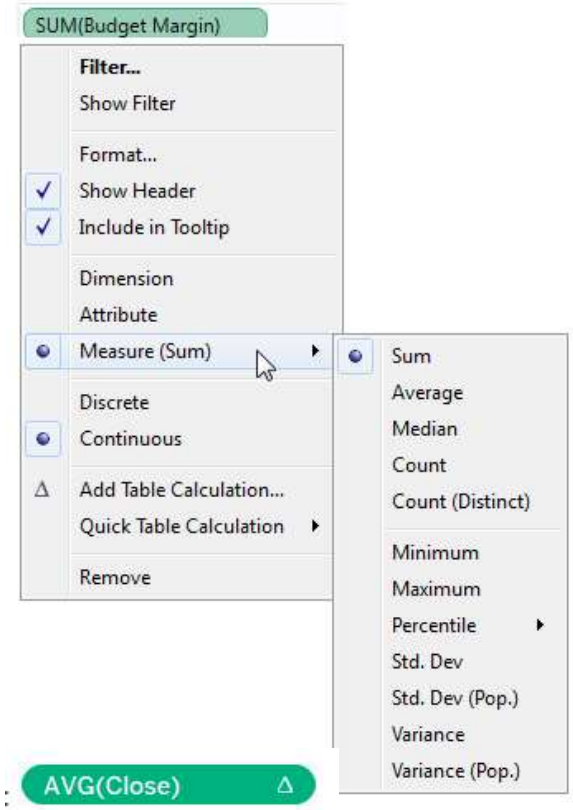
Hint: Measure = numbers ; Dimensions = Text + Dates

tableau

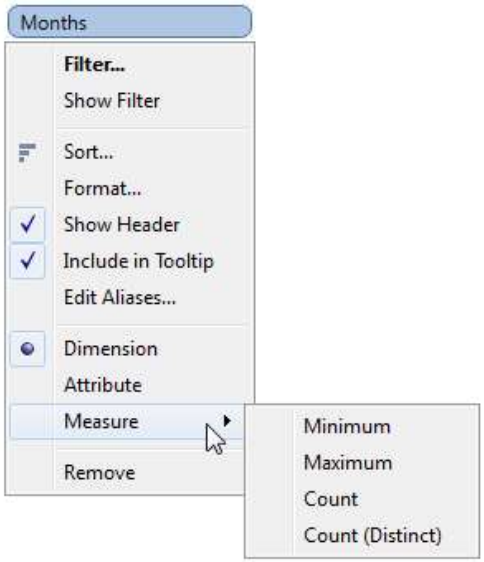
HEEA

Aggregation

Aggregation of a Measure



You can aggregate a dimension in the view as Minimum, Maximum, Count, or Count (Distinct)



tableau

HEEA

Default Properties



Text filed options:

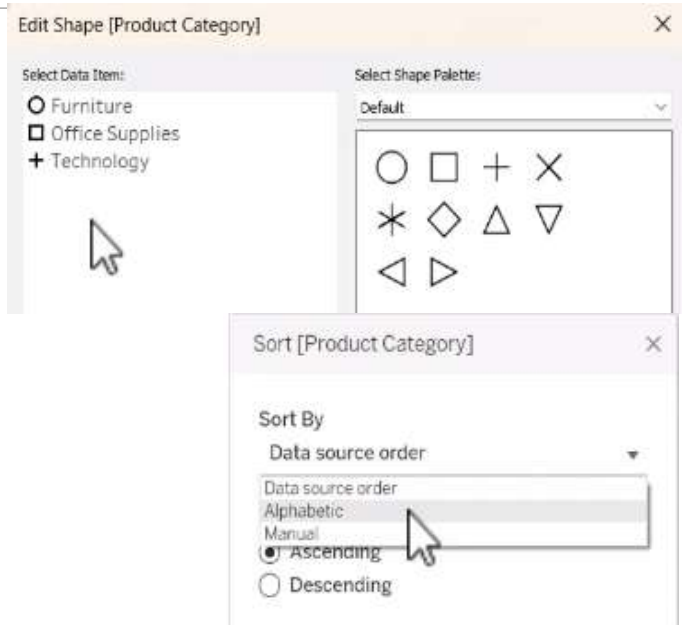
- Comments (hover over text)
- Color – default color for each value
- Shape – default shape for each value
- Sort – Sort order

Date field:

- Date Format (formatting date)
- Fiscal Year start

Number field:

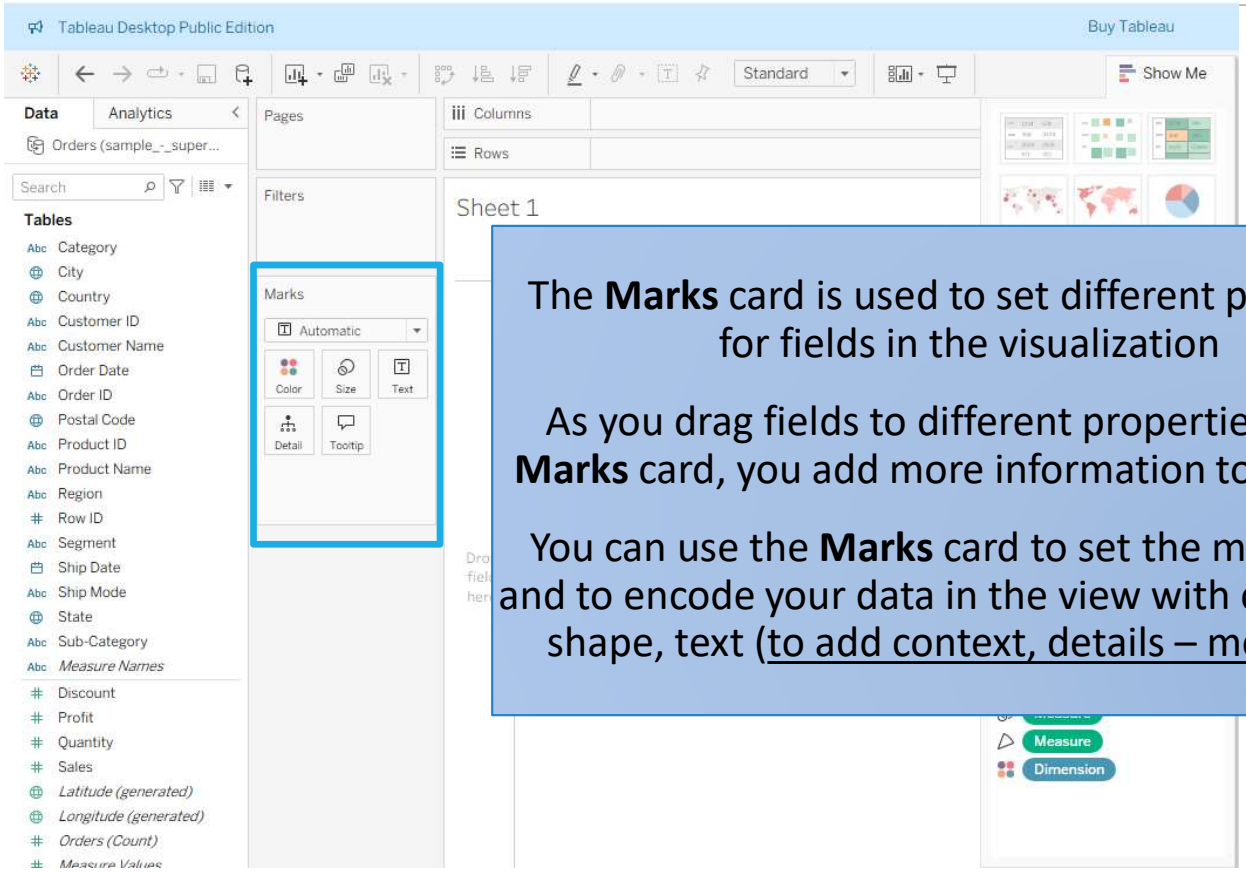
- Number Format (decimal format)
- Aggregation
- Total using



tableau

HEEA

Marks card



The **Marks** card is used to set different properties for fields in the visualization

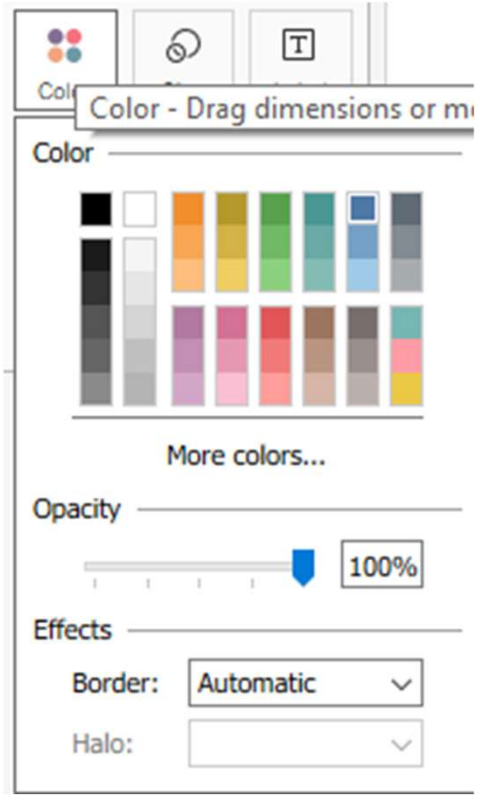
As you drag fields to different properties on the **Marks** card, you add more information to the view.

You can use the **Marks** card to set the mark type and to encode your data in the view with color, size, shape, text (to add context, details – meaning)

tableau

HEEA

Marks - color



Color – pallet

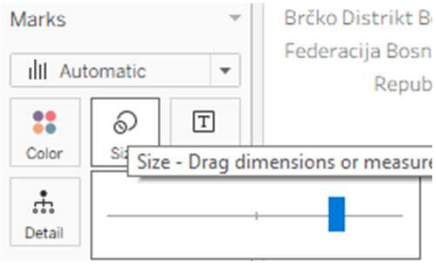
Opacity – level in %

Effects – shading on border

tableau

HEEA

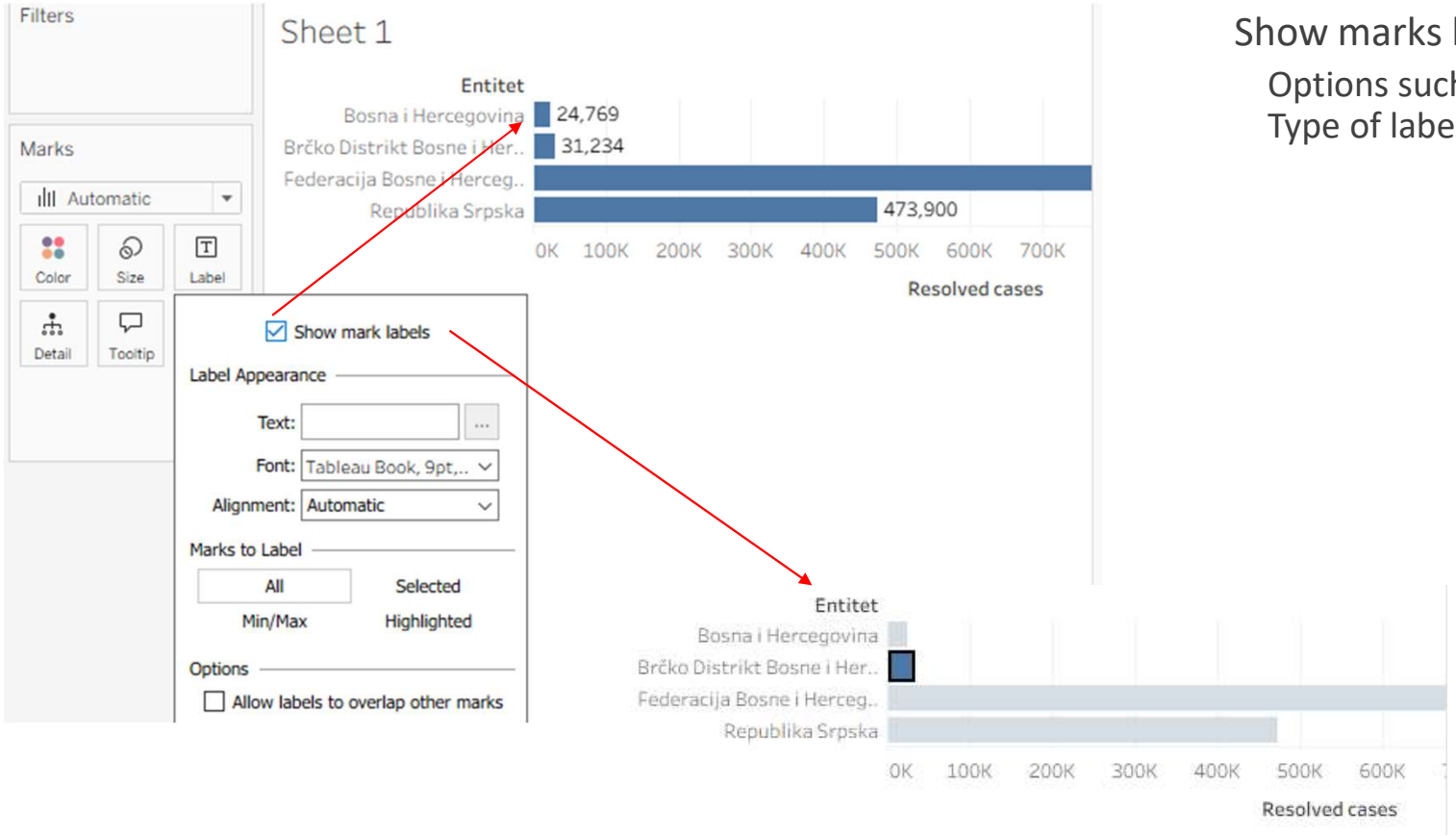
Marks



Size: ex. Change size of bar chart, bubble chart – change size of bubble vis.

tableau

Marks - text



Show marks labels

Options such as Font, Alignment, Type of label (min/max)

Sample data used for next part of presentation

https://edukacija.heea-consulting.com

VSTV fake sample

VSTV fake sample data include data such as: Delivery date, case date, court information

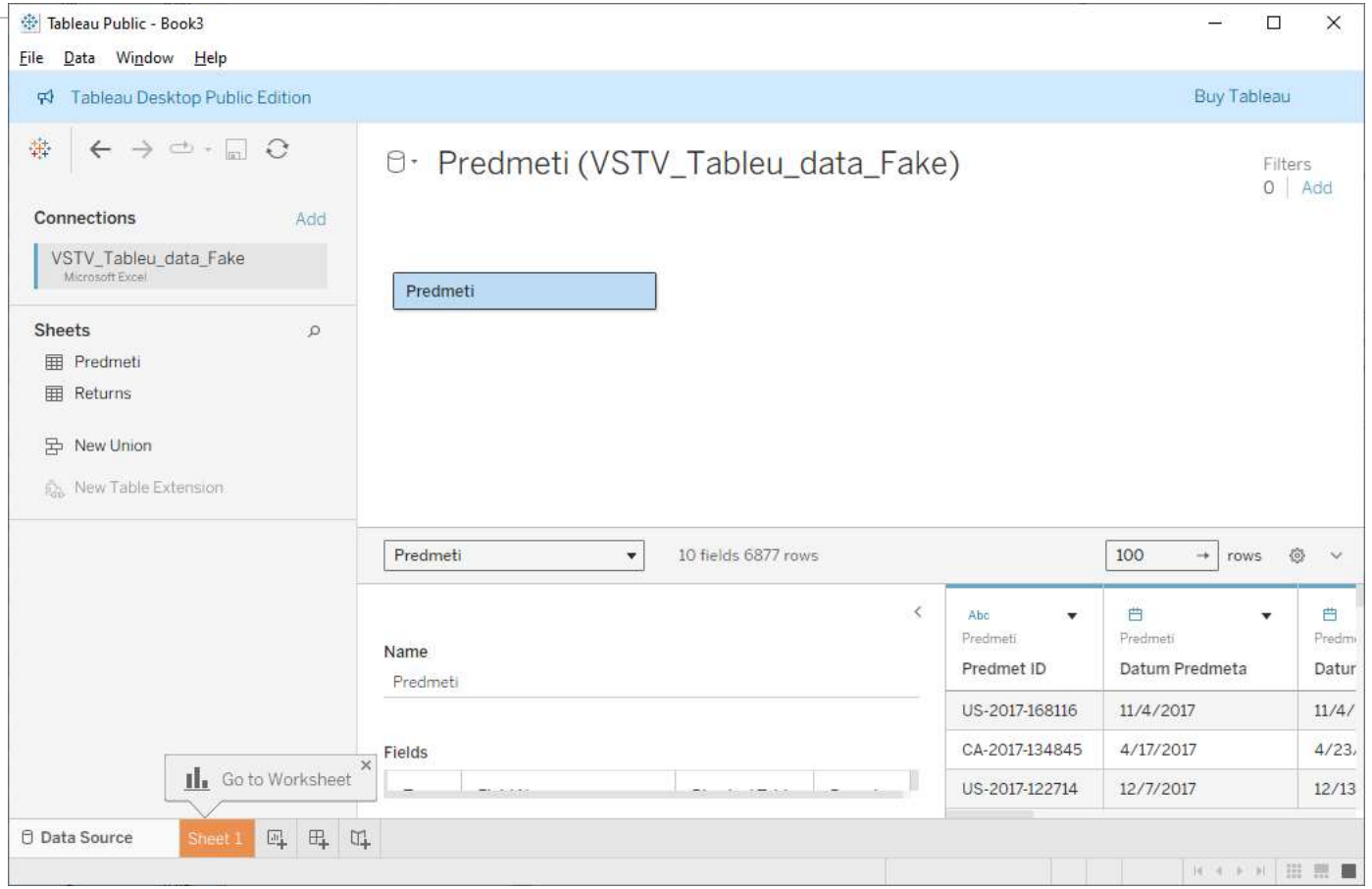
Excel file: **VSTV_Tableu_data_Fake.xls**

HEEA

Load new data connections:
VSTV_Tableu_data_Fake.xls

Import table: Predmeti

Create new sheet 1



HEEA

Bar Charts

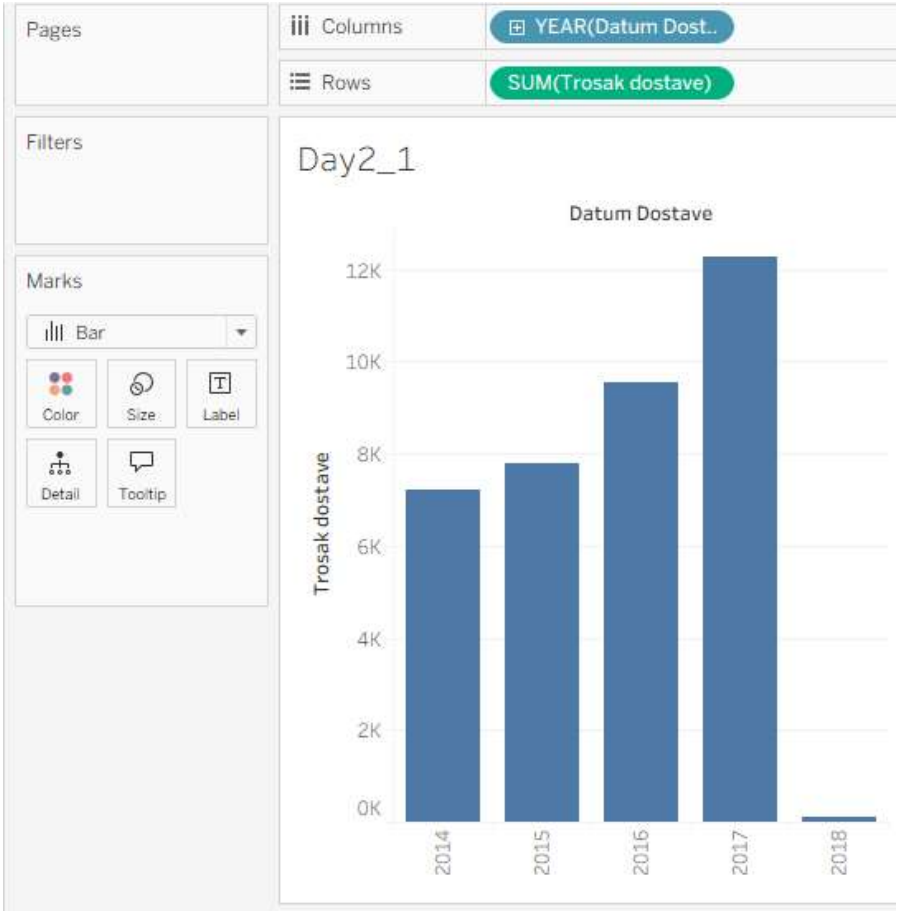
Bar chart are one of the most popular and effective charts

Easy to compare a measure over different categorical values

- Drag the DatumDostave dimension to Columns and drag the Trosak dostave measure to Rows.

Marks:

- Bar

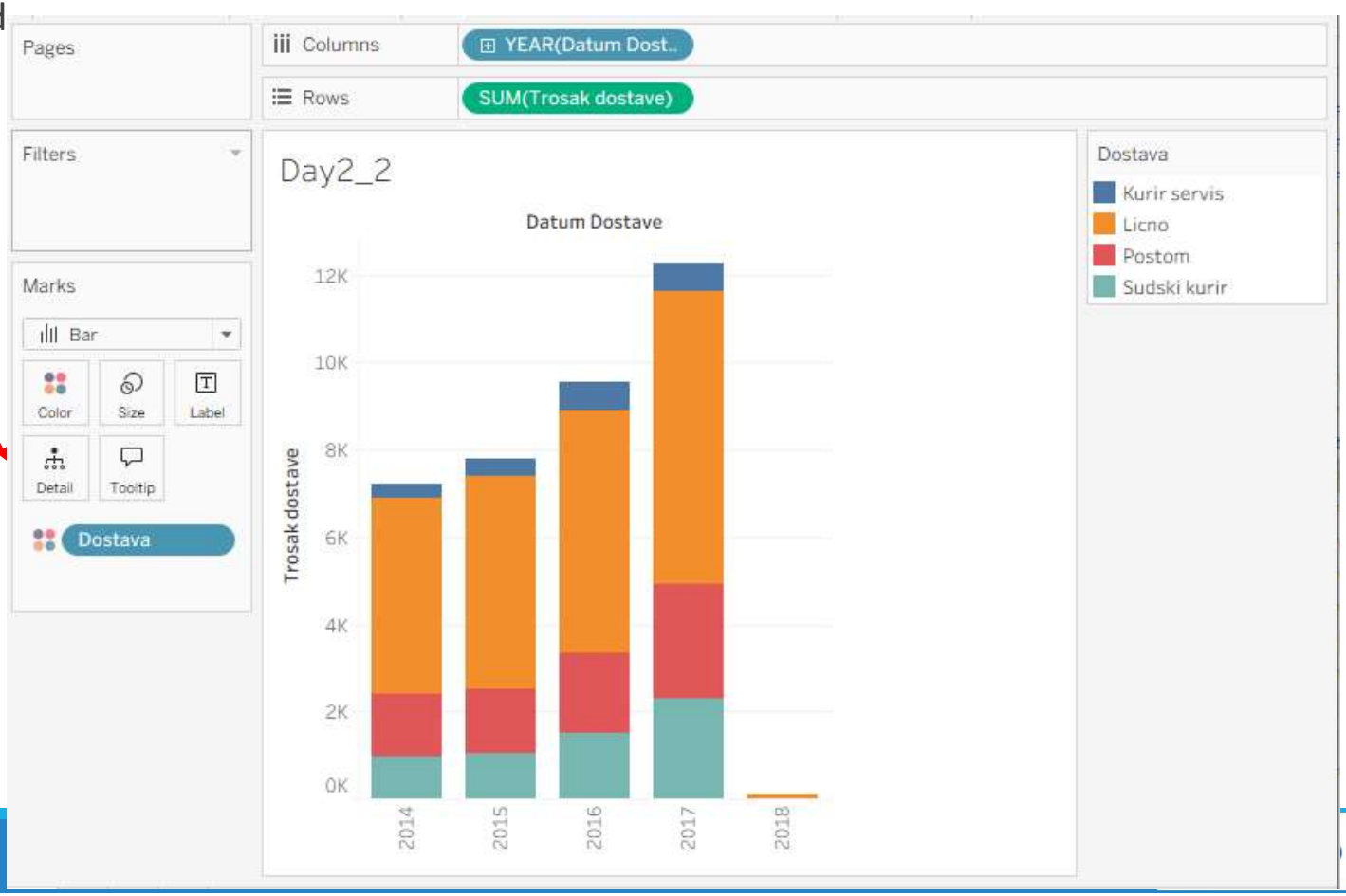


tableau

HEEA

Bar Charts - Color

Drag the type of “Dostava” dimension to Color on the **Marks** card

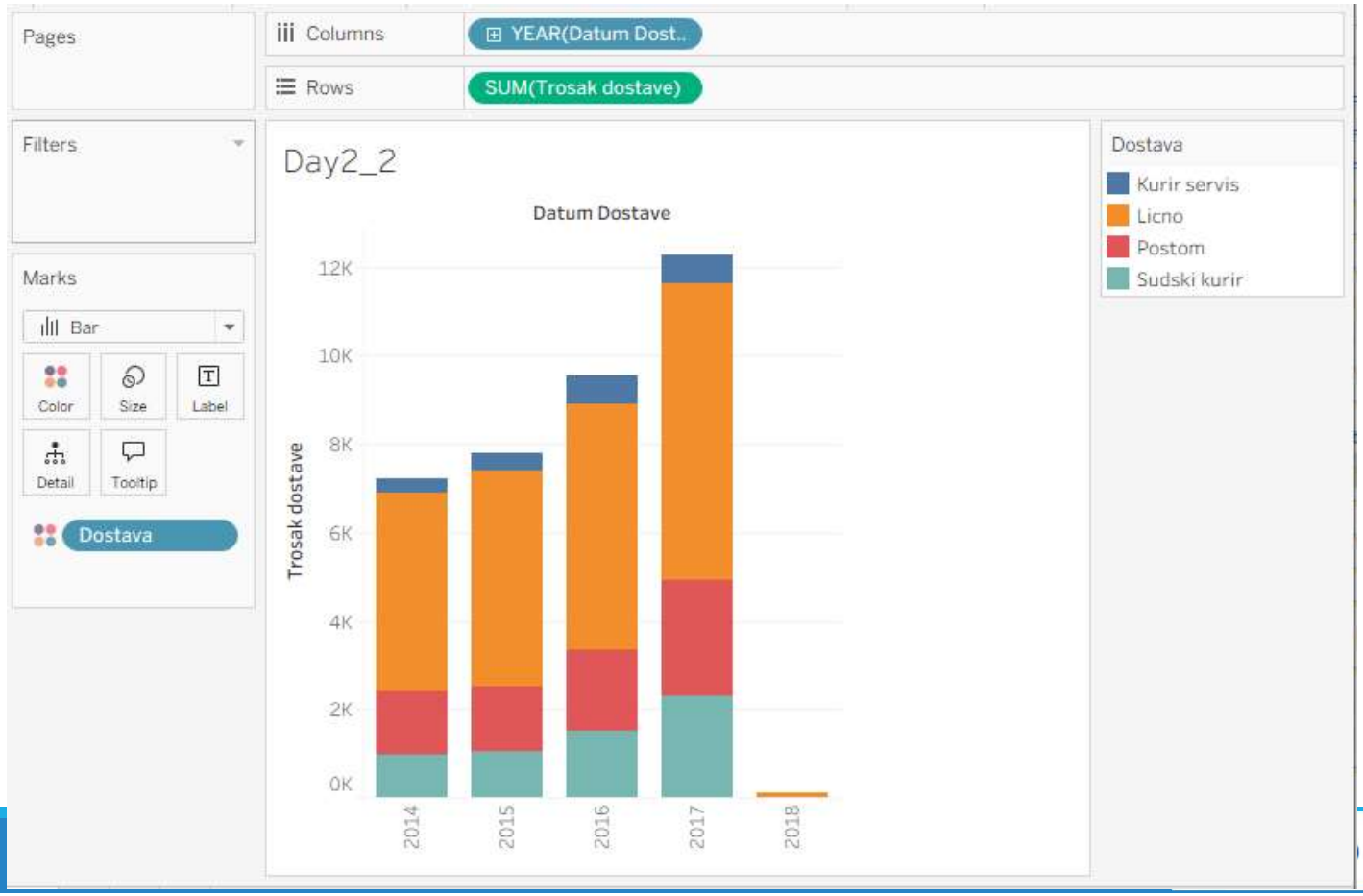


HEEA

Bar Charts - Color

For **horizontal bars** try
0 or more Dimensi..
1 or more Measu..

Drag the type “Dostava” dimension to Color on the **Marks** card.

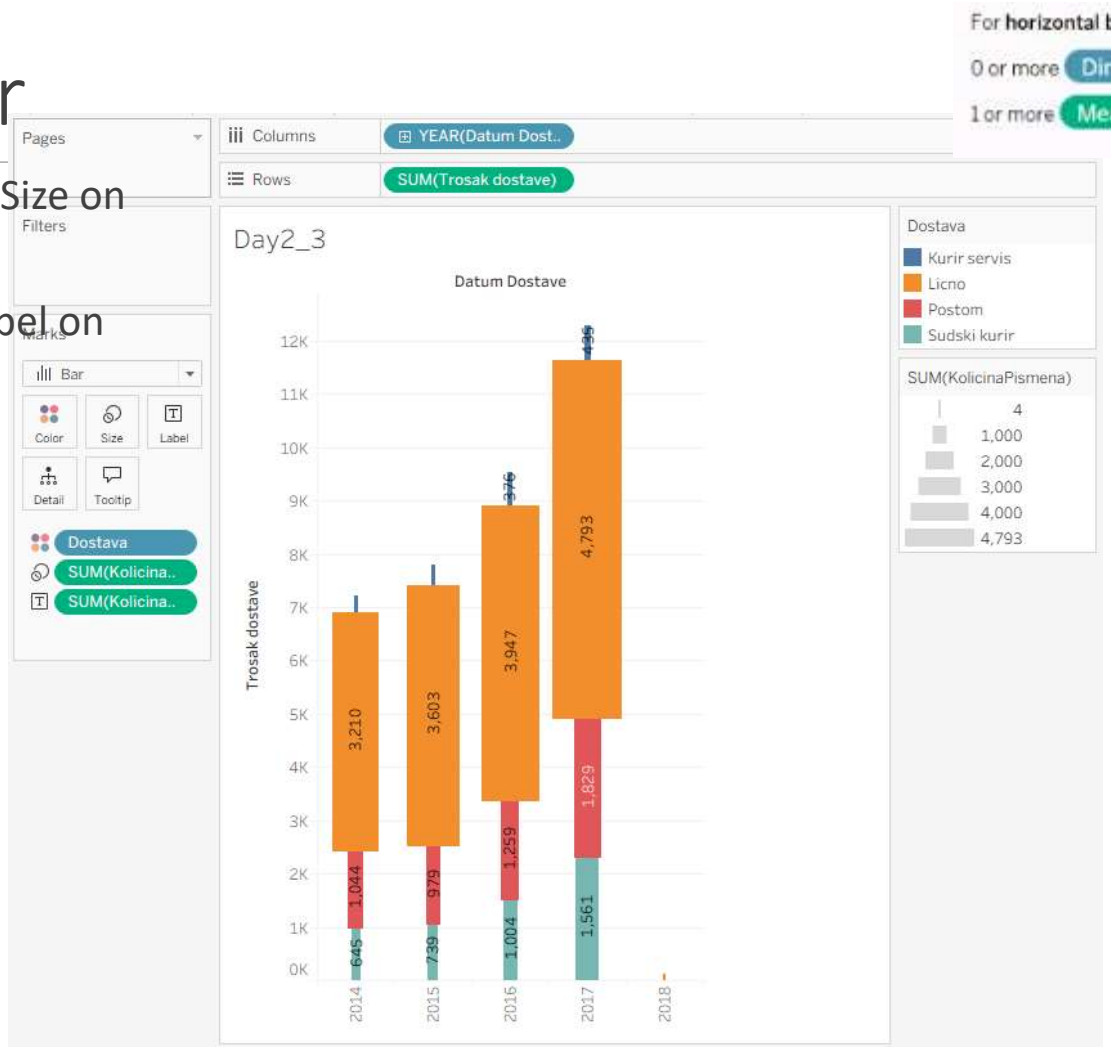


HEEA

Bar Charts - Color

Drag the “KolicinaPismena” dimension to Size on the **Marks** card.

Drag the “KolicinaPismena” dimension Label on the Marks card.

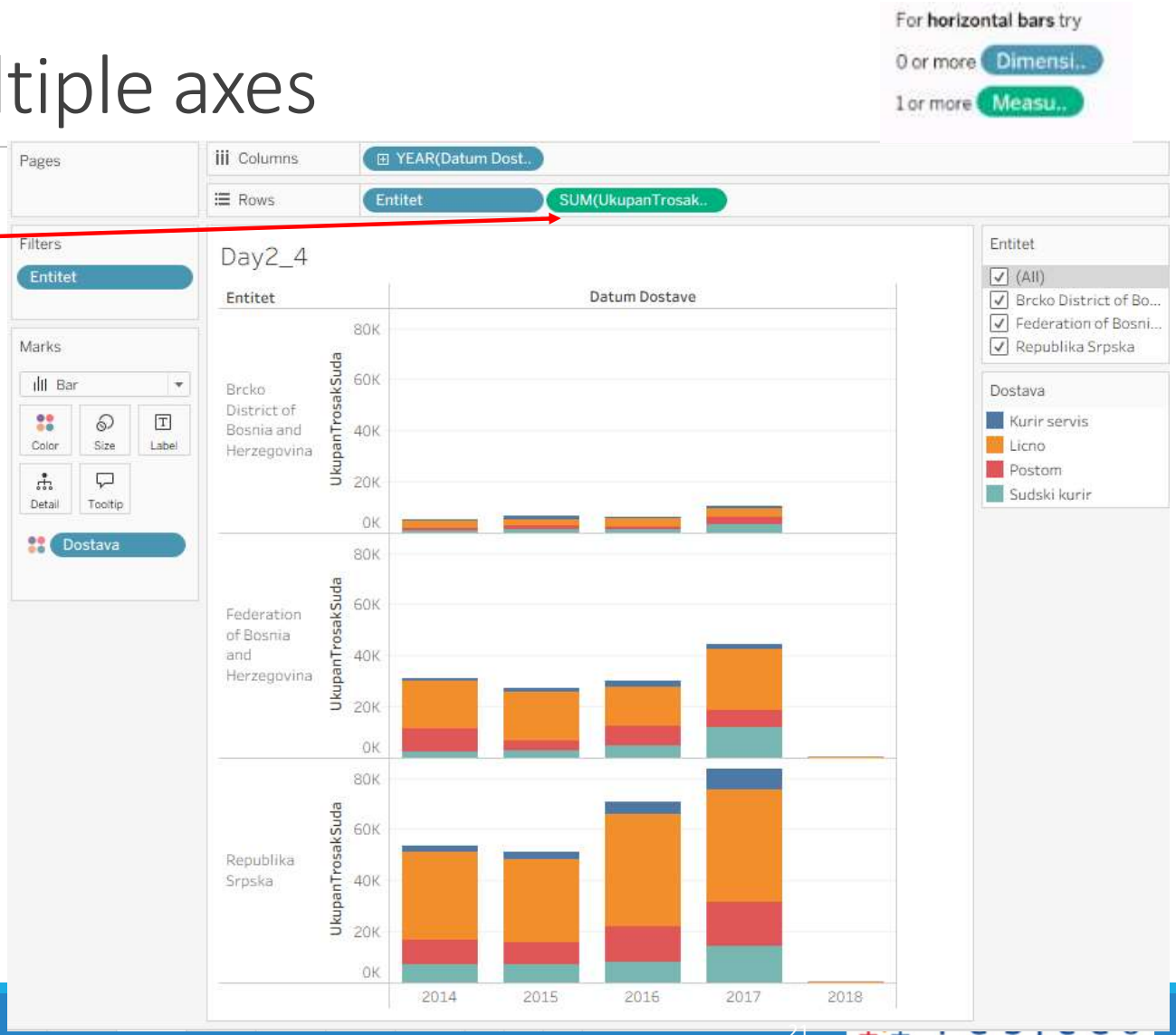


tableau

HEEA

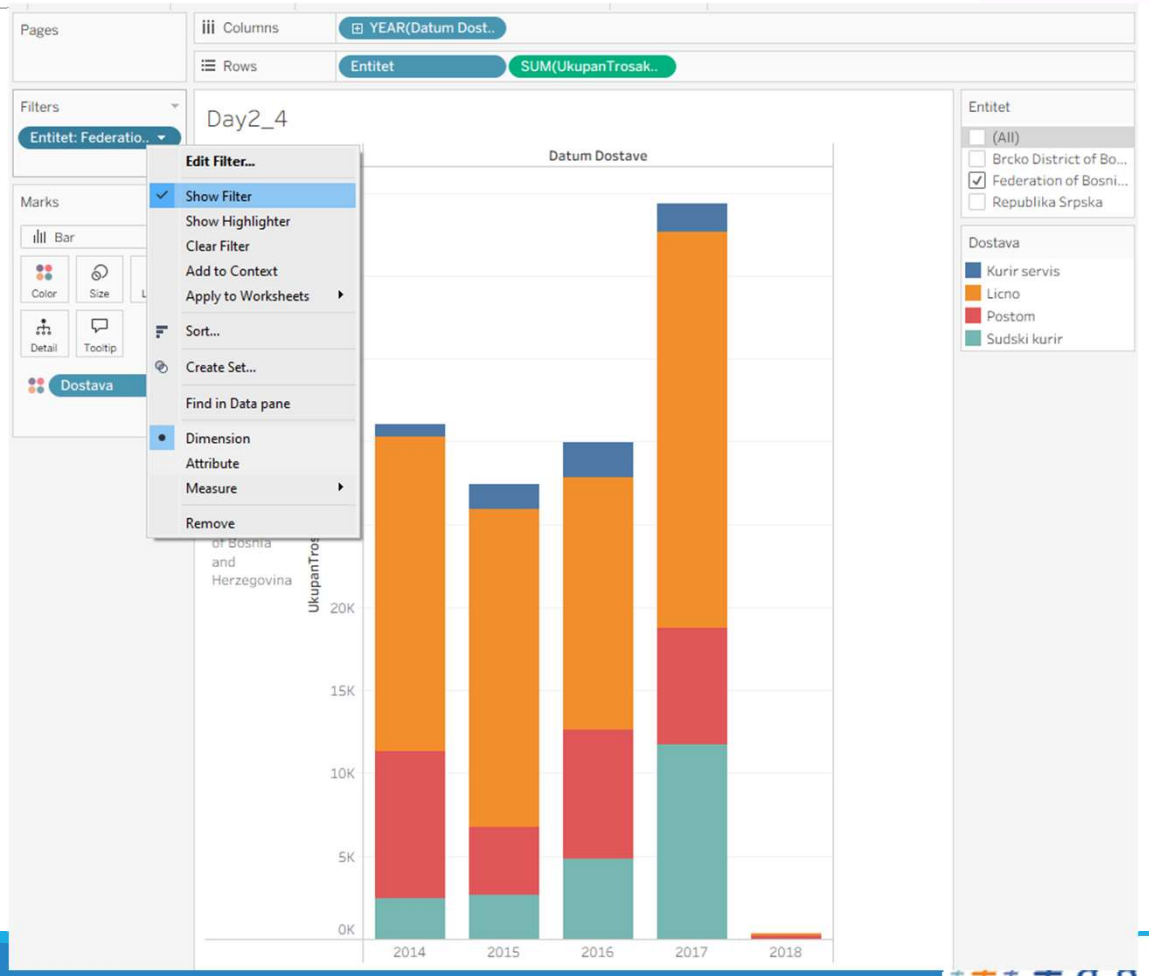
Bar Charts – multiple axes

Drag the Entitet dimension to Rows, and UkupanTrosak Suda to produce multiple axes for sales by Entitet.



Bar Charts – filter

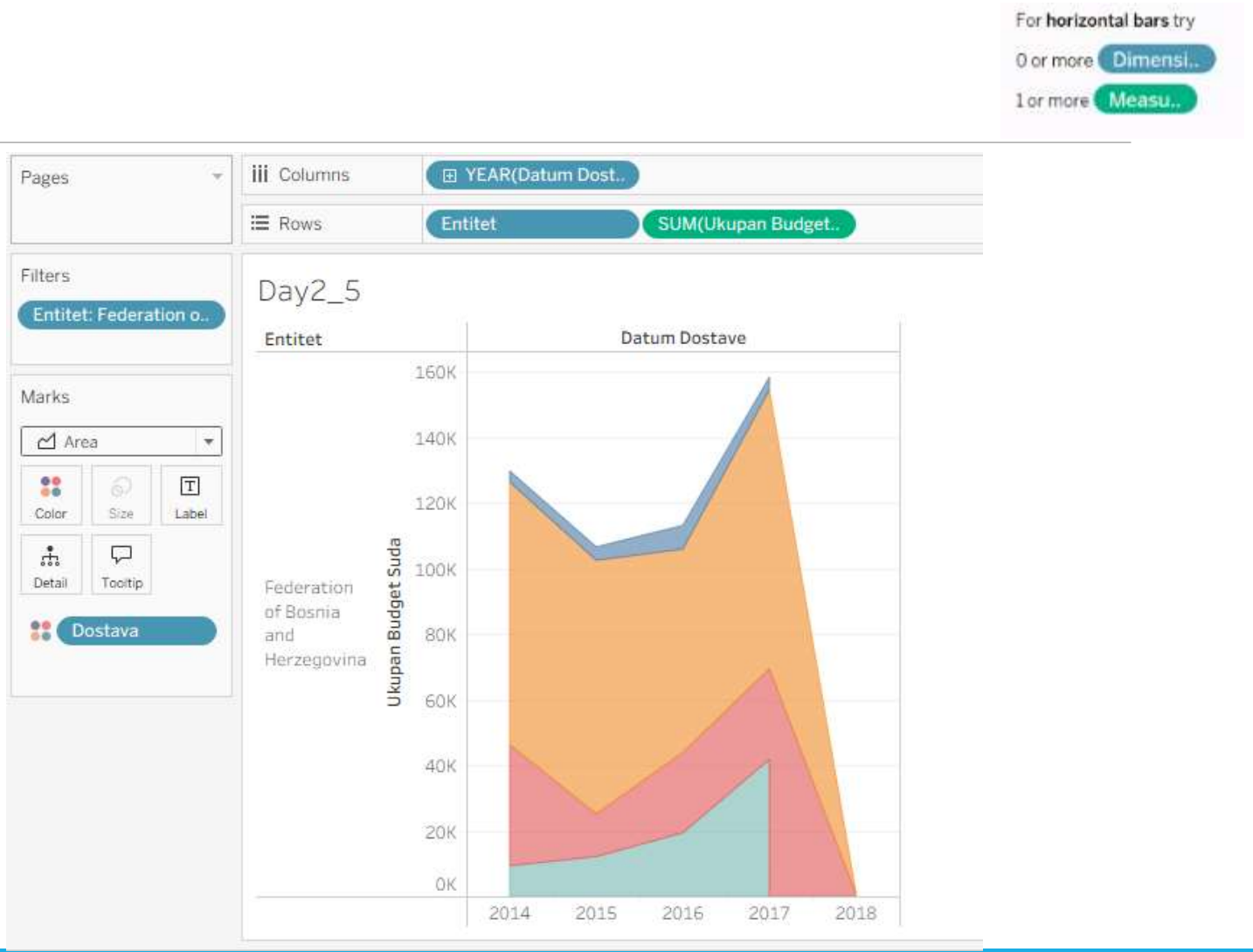
To view data in the Federation, you can filter out the other regions. To do this, right mouse click on Entitet dimension, select Show Filter, note the Data pane to the Filters box.



HEEA

Area Chart

On the Marks card, click the Mark Type drop-down and select Area.



tableau

HEEA

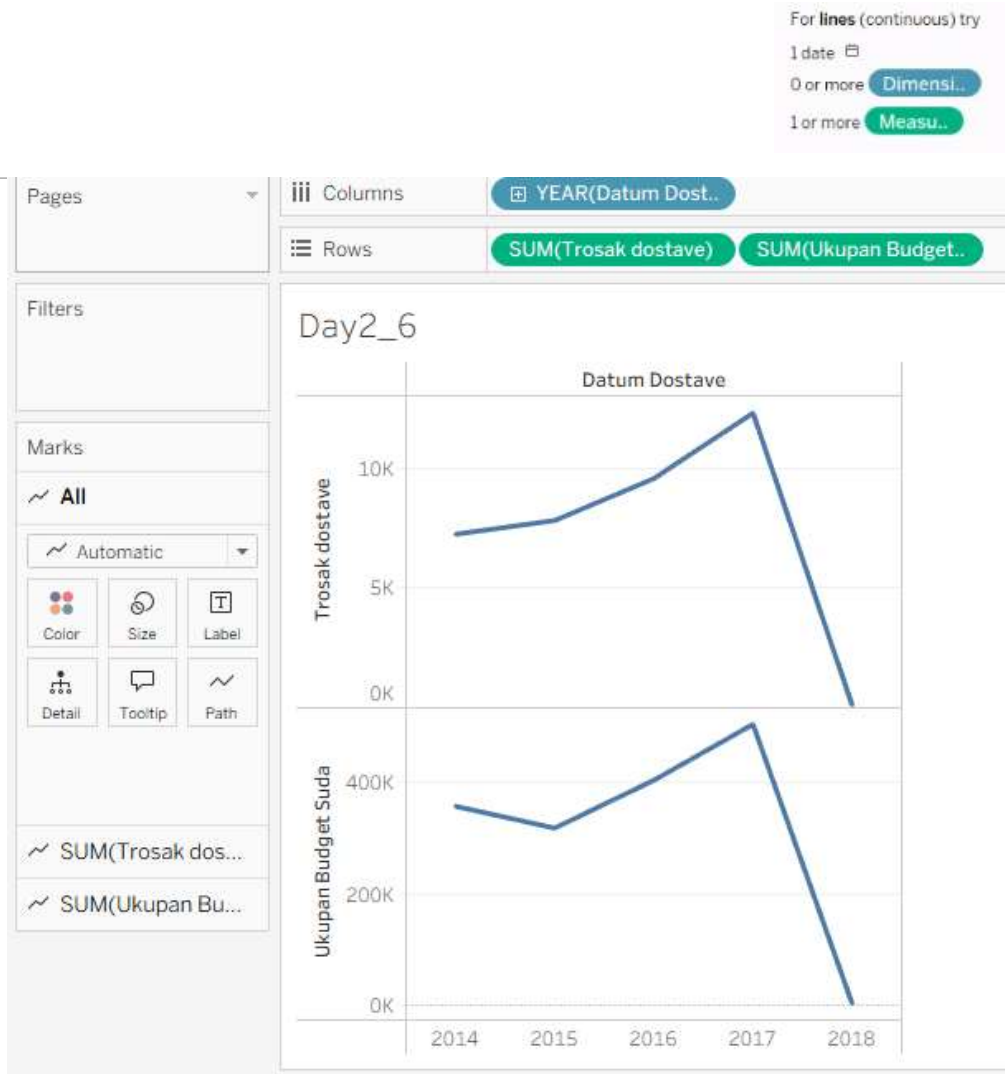
Line Charts

Line charts are used when we want to visualize a measure over time to see how the measure changes from point to point

To create a line chart, we need a measure and a date field.

We can create line chart with multiple measures.

- Drag the Datum Dostave dimension to Columns. Tableau aggregates the date by year
- Drag the Trosak Dostave measure to Rows. Tableau aggregates Trosak as SUM
- Drag the Ukupan Budget measure to Rows and drop it to the right of the Budget measure.

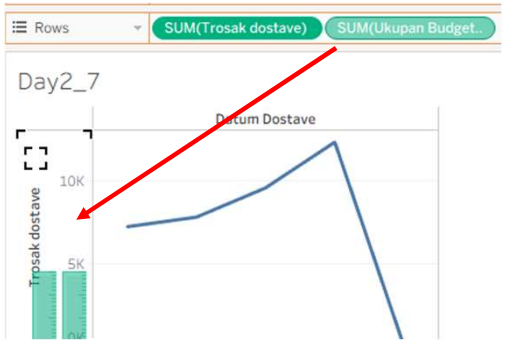


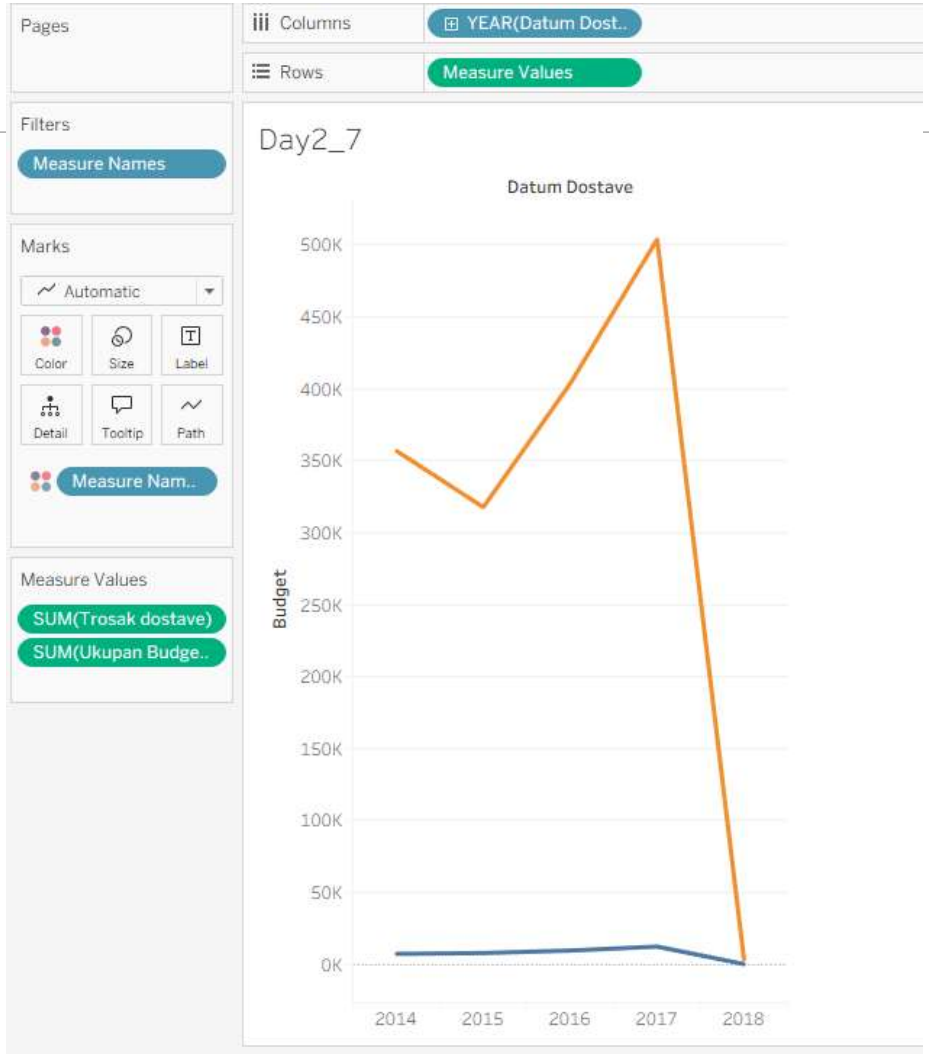
tableau

HEEA

Line Charts

Drag the SUM(Ukupan Budget) field from Rows to the Trosak axis to create a blended axis. The two pale green parallel bars indicate that Trosak and Budget will use a blended axis when you release the mouse button.



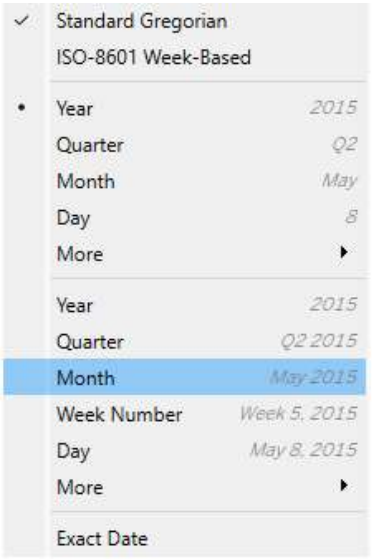


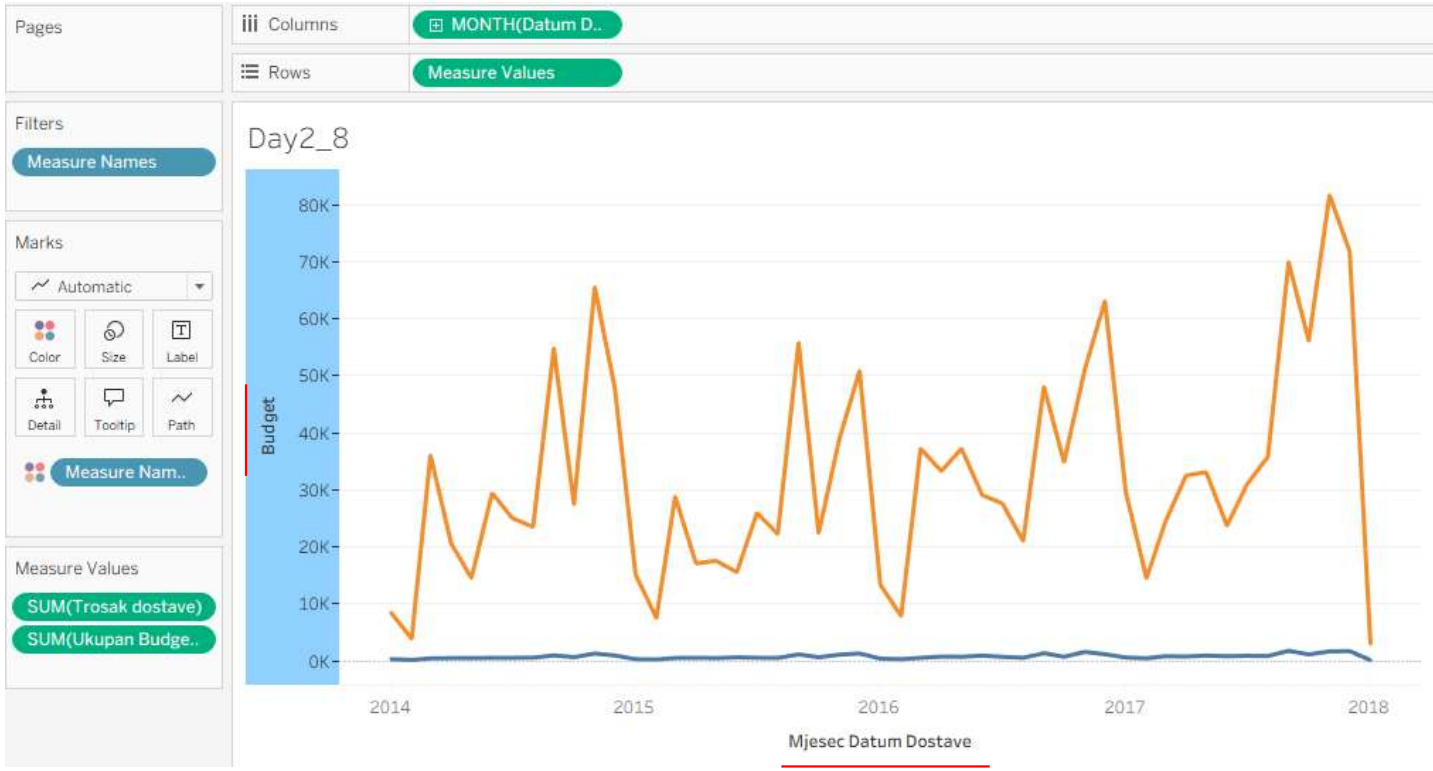
tableau

HEEA

Line Charts

Click the drop-down arrow in the YEAR([Datum Dostave]) field on the Columns shelf and select Month in the lower part of the context menu to see a continuous range of values over the four-year period.

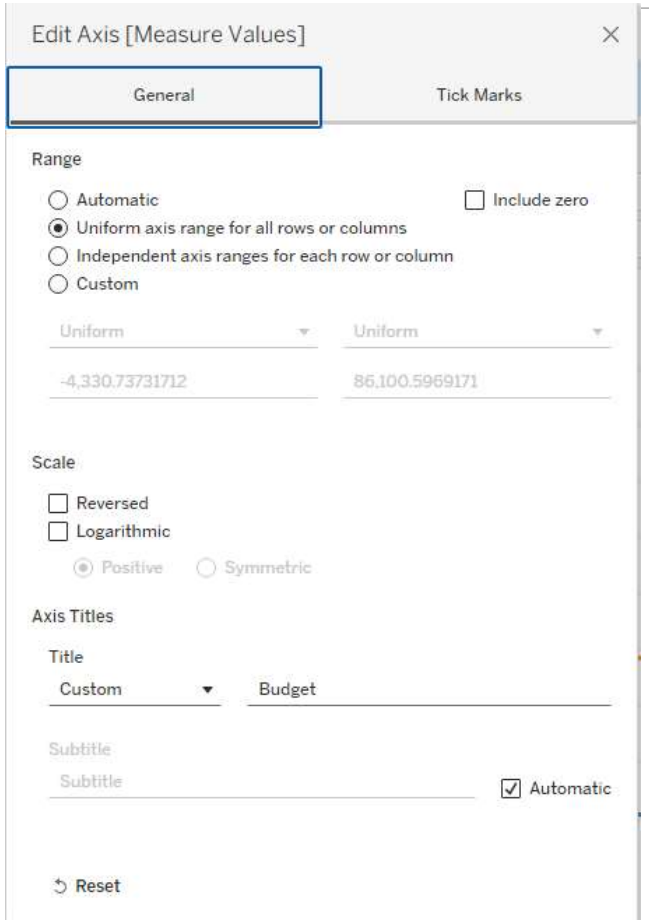


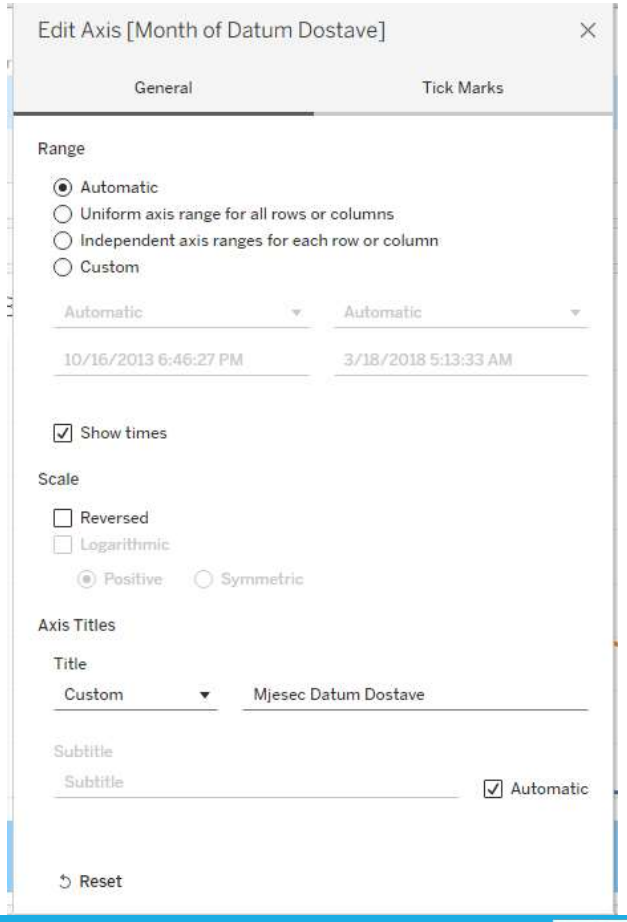


tableau

HEEA

Line Charts – Axis labels





tableau

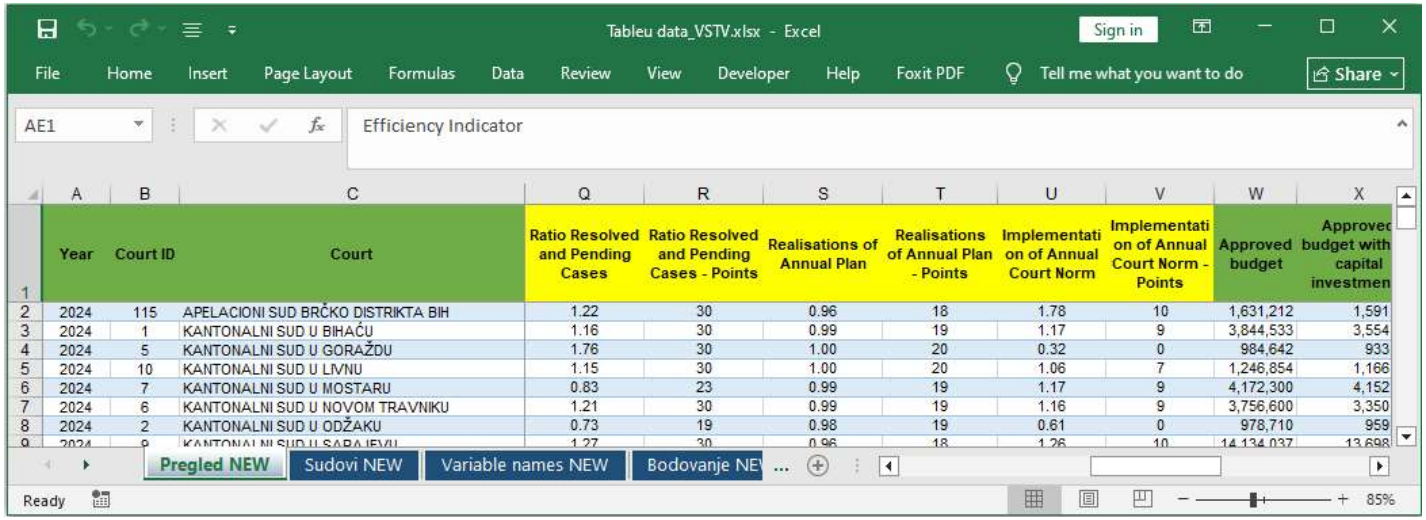
Sample data used for next part of presentation

https://edukacija.heea-consulting.com

VSTV sample

Contains information about VSTV, indicators for each court, sample data

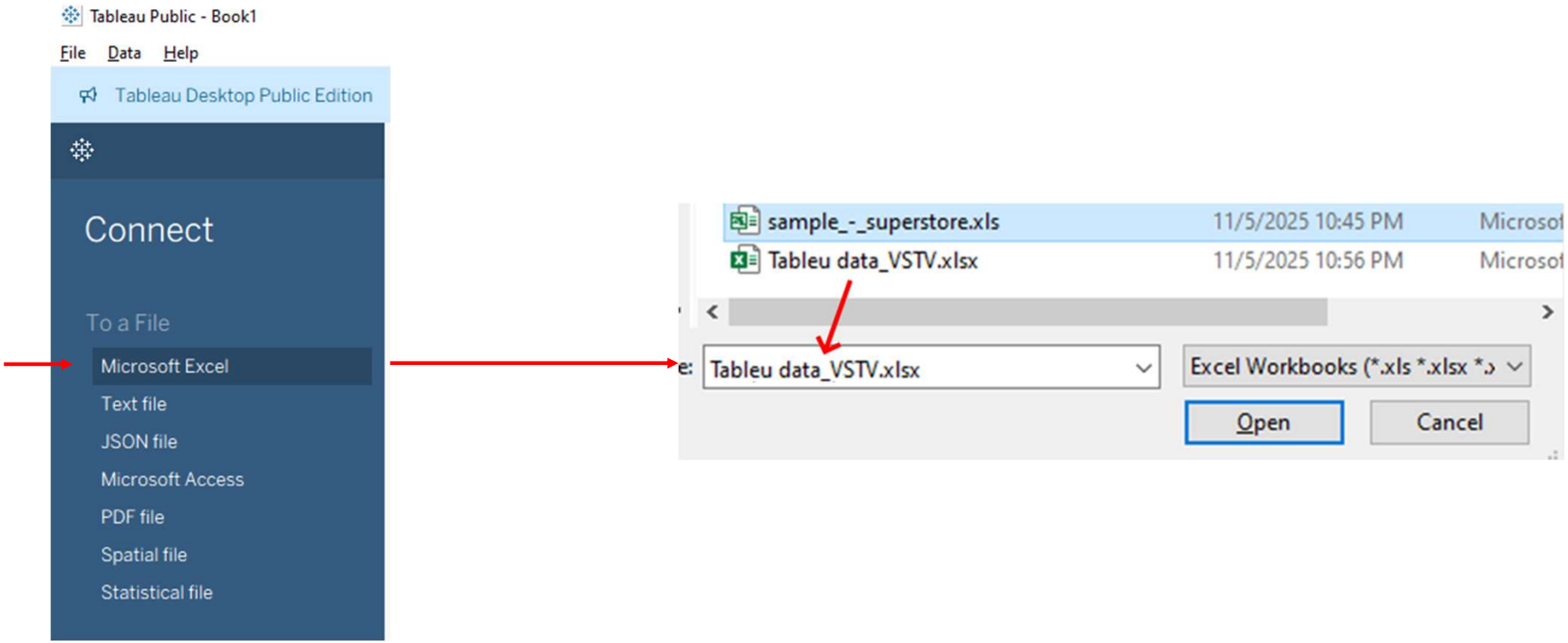
Excel file: **VSTV Tableu data_V2.xlsx**



Year	Court ID	Court	Ratio Resolved and Pending Cases	Ratio Resolved and Pending Cases - Points	Realisations of Annual Plan	Realisations of Annual Plan - Points	Implementation of Annual Court Norm	Implementation of Annual Court Norm - Points	Approved budget	Approved budget with capital investmen
2024	115	APELACIONI SUD BRČKO DISTRIKTA BIH	1.22	30	0.96	18	1.78	10	1,631,212	1,591
2024	1	KANTONALNI SUD U BIHAĆU	1.16	30	0.99	19	1.17	9	3,844,533	3,554
2024	5	KANTONALNI SUD U GORAŽDU	1.76	30	1.00	20	0.32	0	984,642	933
2024	10	KANTONALNI SUD U LIVNU	1.15	30	1.00	20	1.06	7	1,246,854	1,166
2024	7	KANTONALNI SUD U MOSTARU	0.83	23	0.99	19	1.17	9	4,172,300	4,152
2024	6	KANTONALNI SUD U NOVOM TRAVNIKU	1.21	30	0.99	19	1.16	9	3,756,600	3,350
2024	2	KANTONALNI SUD U ODŽAKU	0.73	19	0.98	19	0.61	0	978,710	959
2024	9	KANTONALNI SUD U SARAJEVU	1.27	30	0.96	18	1.26	10	14,134,037	13,698

Get connected

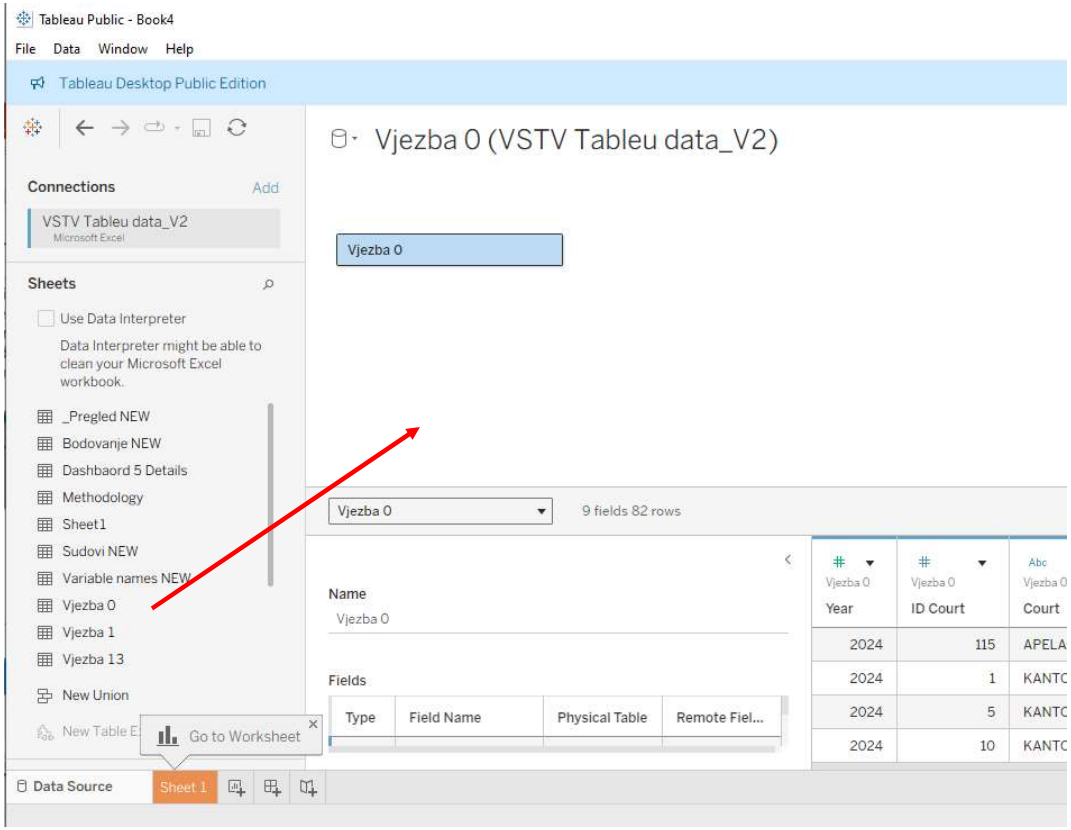
- open Tableau Desktop



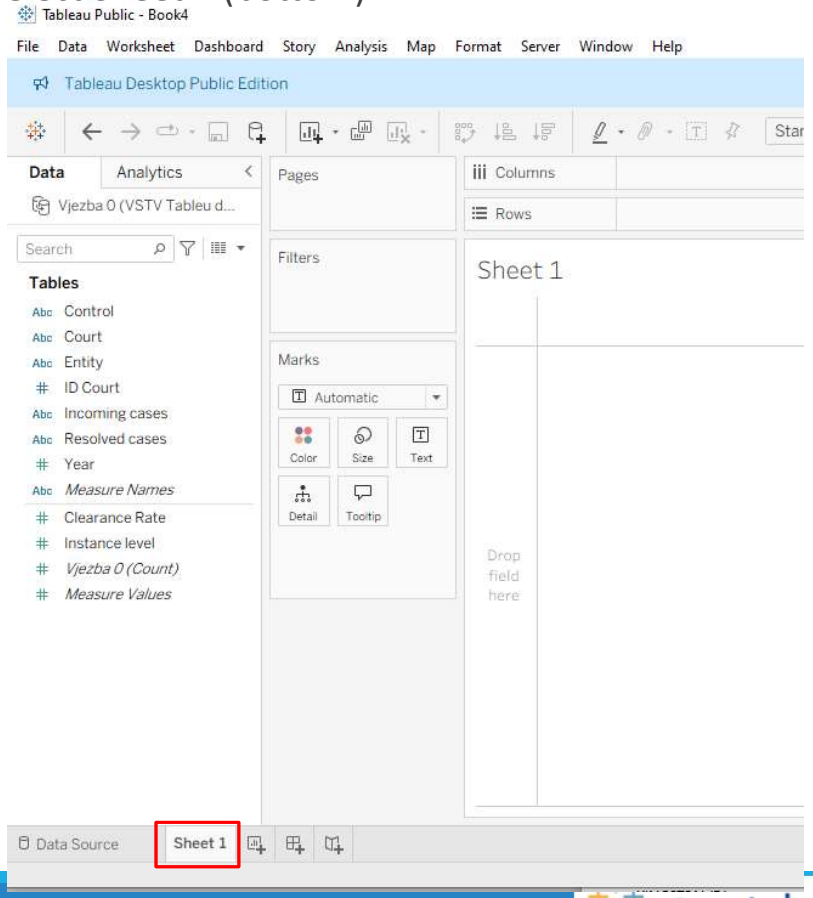
HEEA

Get connected

- Pull Vjezba 0 table to right side



- Select Sheet 1 (bottom)

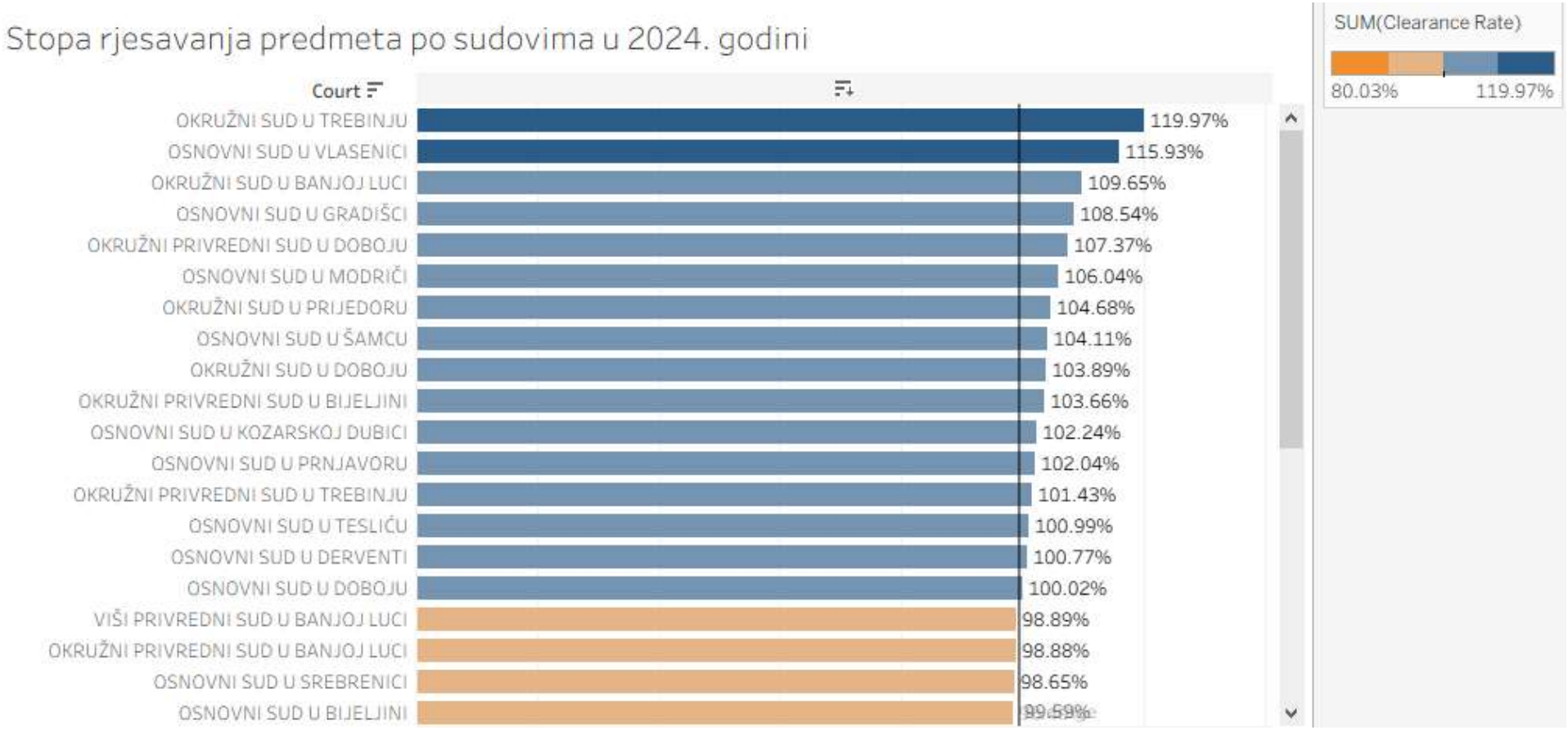


tableau

HEEA

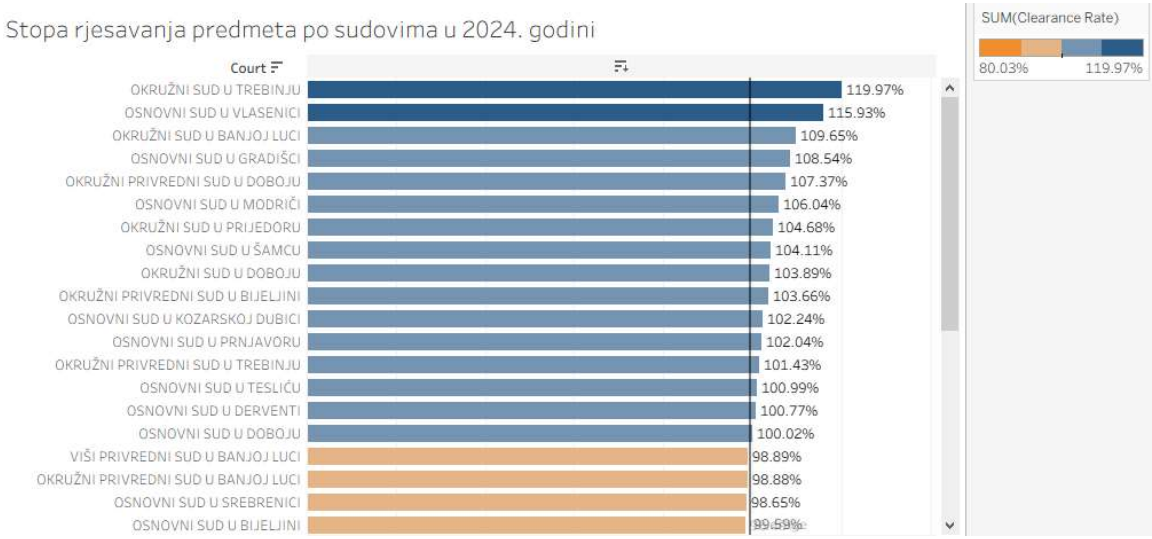
Hands on exercise 0

Sheet: Vjezba 0



tableau

Hands on exercise 0

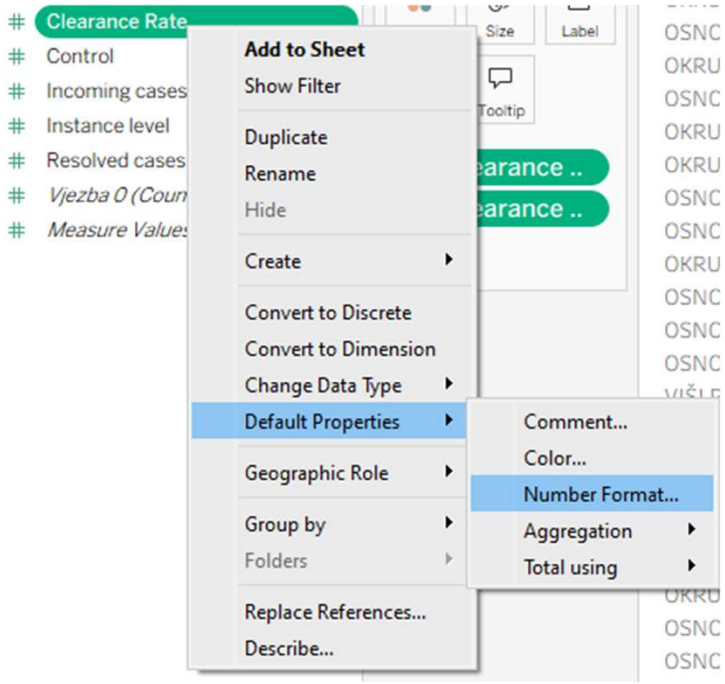


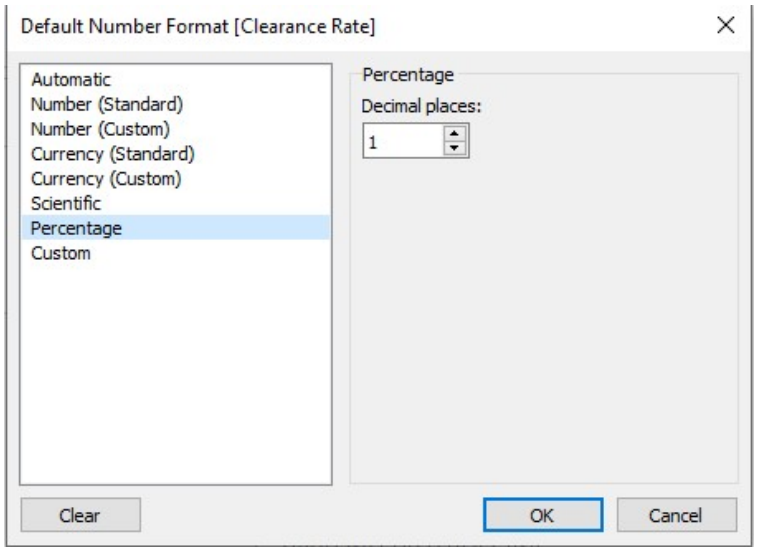
Steps:

- Use data from: Vjezba 0
- Clearance Rate change to Percentage % format
- Create BarChart
- Columns Clearance Rate
- Rows Court
- Filter: Republic Srpska
- Enter new tile: Stopa rjesavanja predmeta po sudovima u 2024. godini
- Sort: Top performing on top
- Add average line: to show precent value not text “average”
- Set color as such: if below 100% Orange, if above 100% blue. With 4 steps
- Hide bottom scale/bar
- Extend Court names to be able to see them in full text
- Show in View mode

HEEA

Change to percentage format

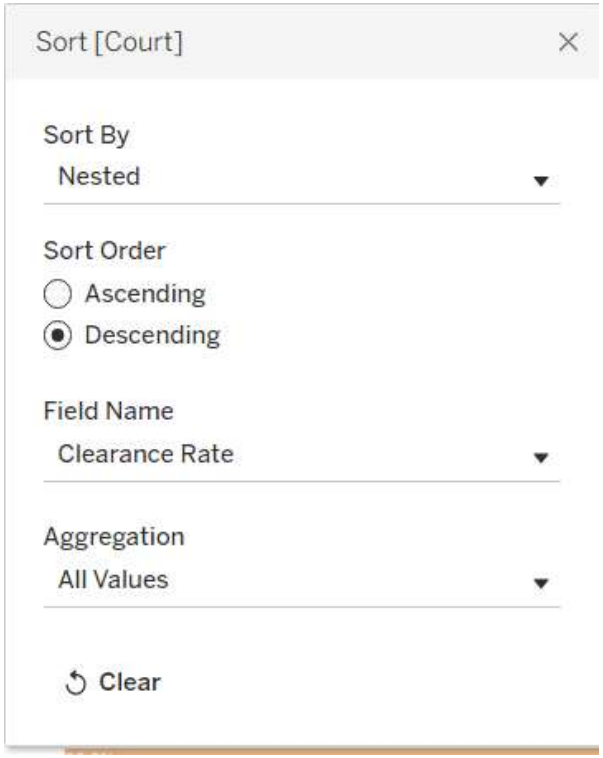




tableau

HEEA

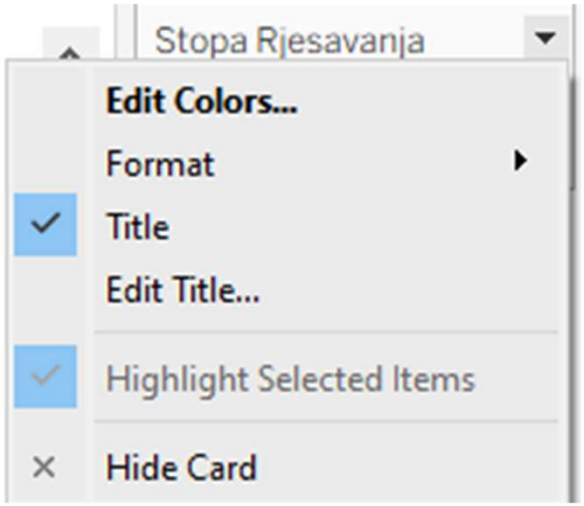
Sort best on top

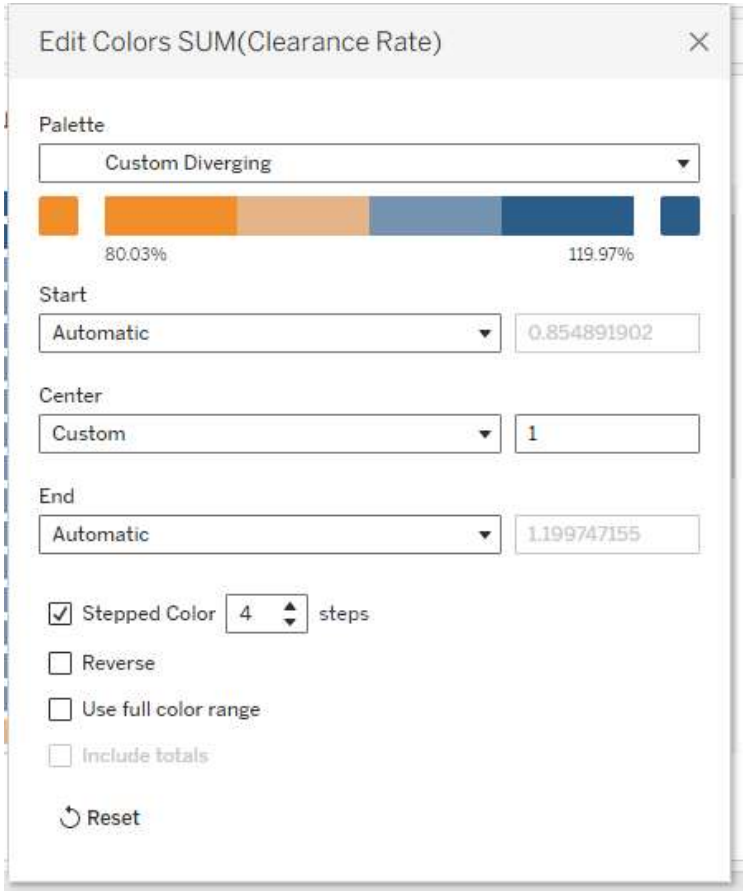


tableau

HEEA

Set color

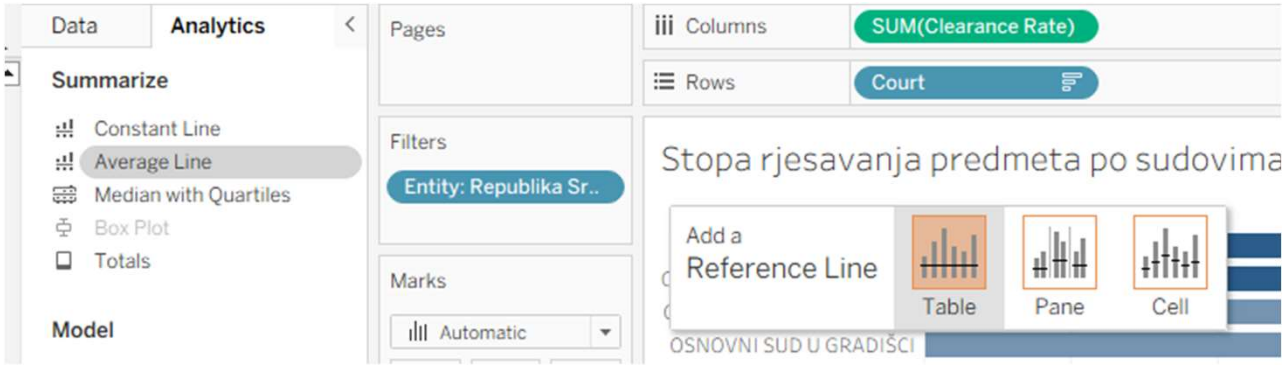


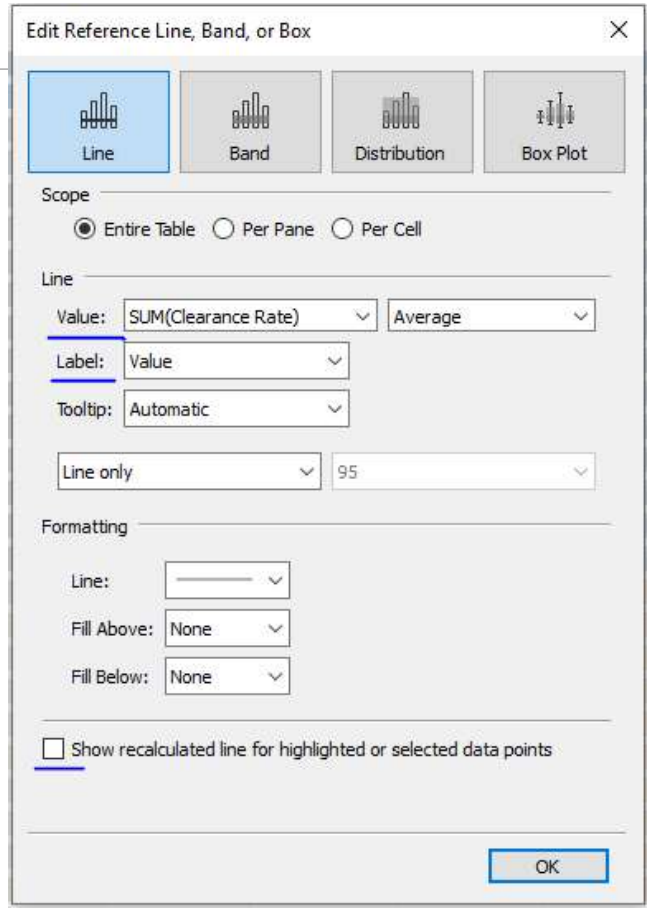


tableau

HEEA

Average line





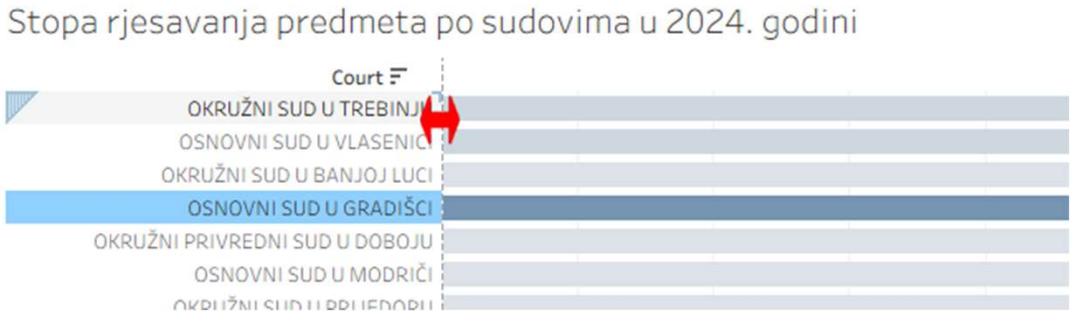
tableau

Hide bar

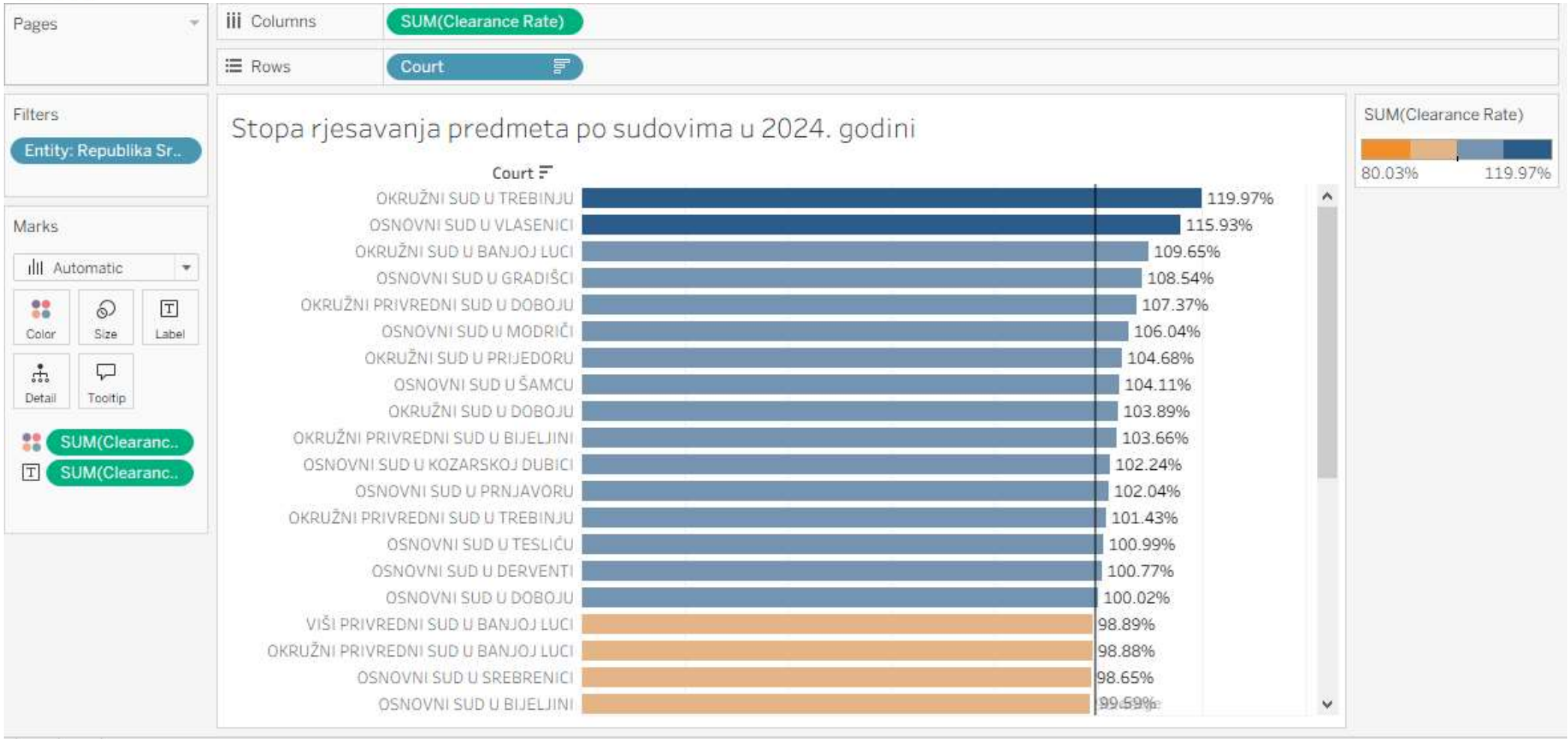
Hide bottom bar



Extend text length

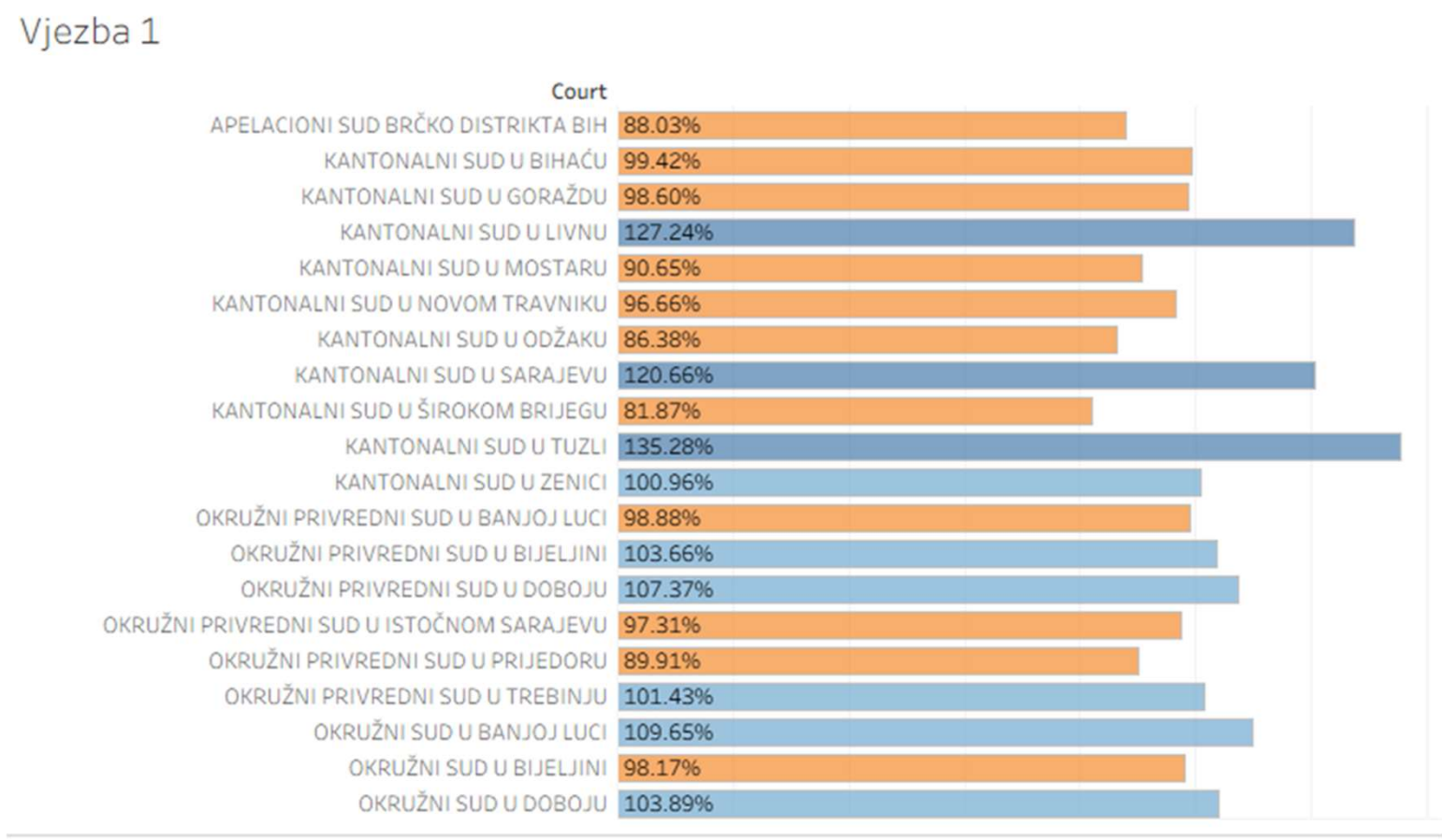


Hands on exercise 0 - solution



Hands on exercise 1

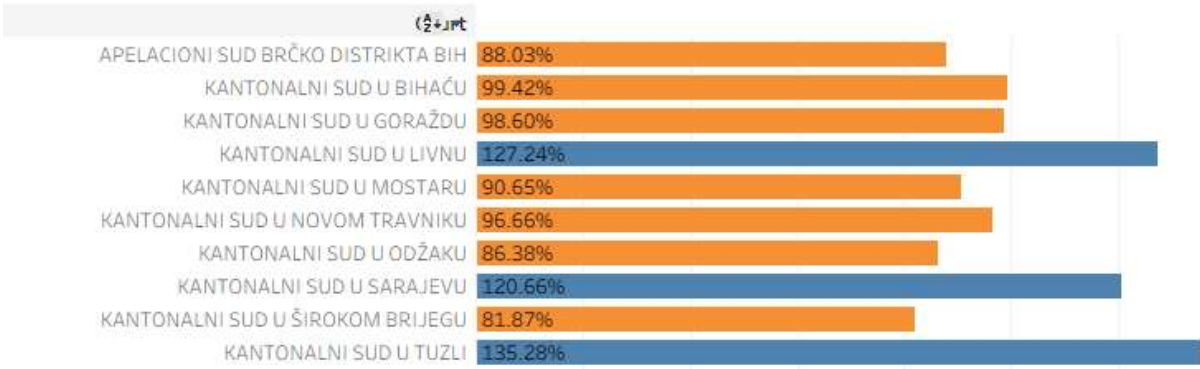
Sheet: Vjezba 1



HEEA

Hands on exercise 1

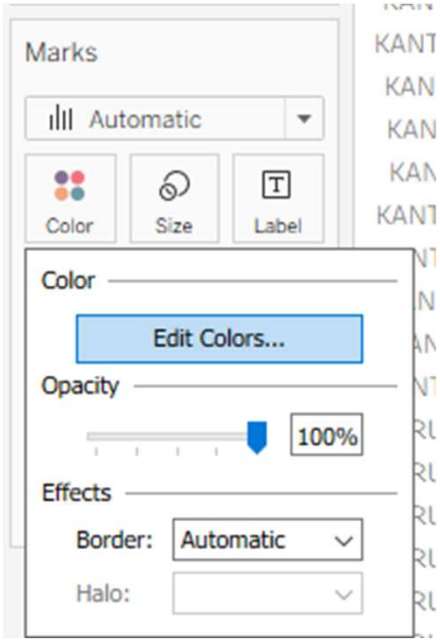
- Create new Tableau Public File
- Connect to VSTV Tableu data_V2.xlsx data source
- Load data from Sheets Vjezba 1
- Show BarChart showing names of courts vs clerance rate
- Note: check year, check data in tables, filter only 2024
- Format: Clerance Rate in %
- Filter: Remove option to select ALL years
- Color: Set color to be steps 4, with everything below 100% Orange, while over 100% blue (Orabge-Blue Diverging)
- Show lable values inside the bars (not at the end)
- Extend name of courts.

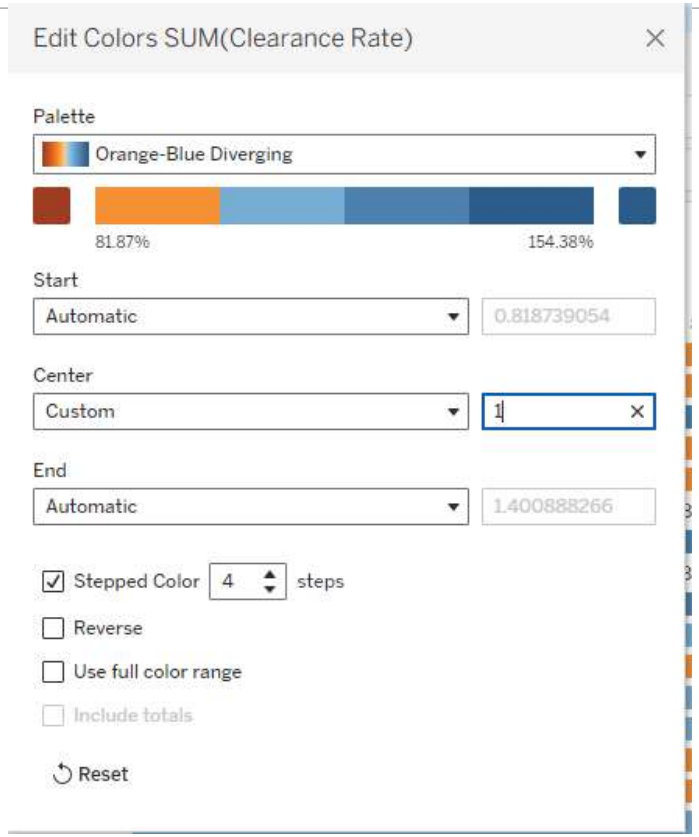


tableau

HEEA

Edit colors

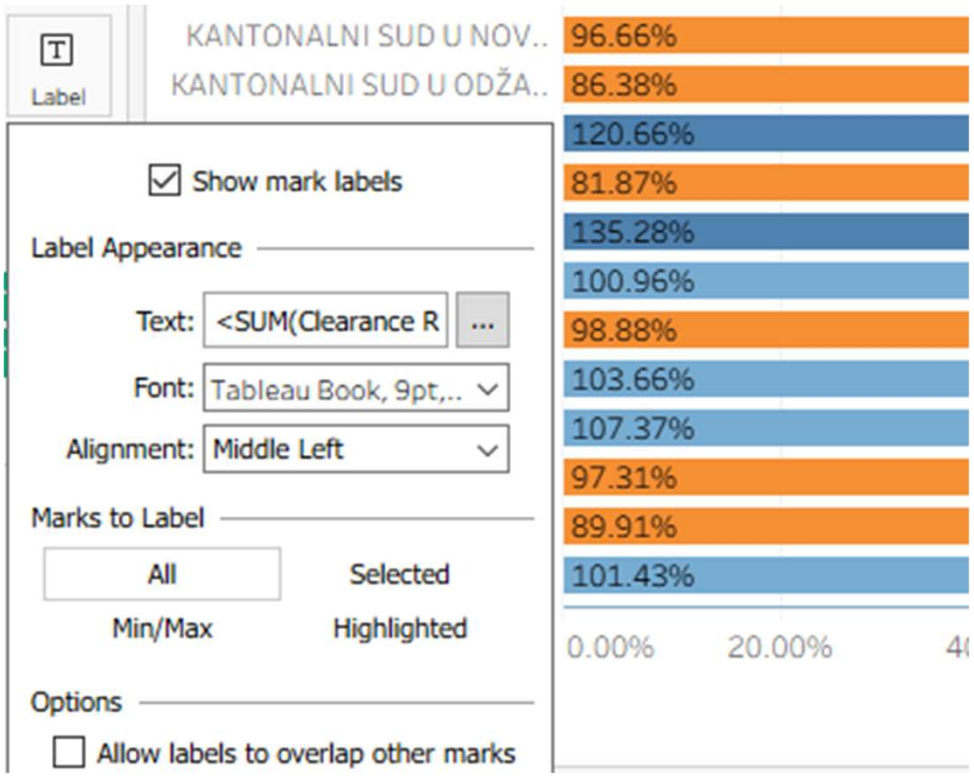




tableau

HEEA

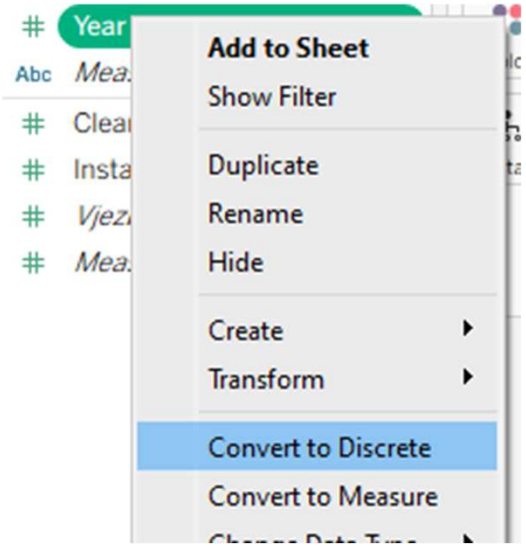
Labels on bar – do not show values



tableau

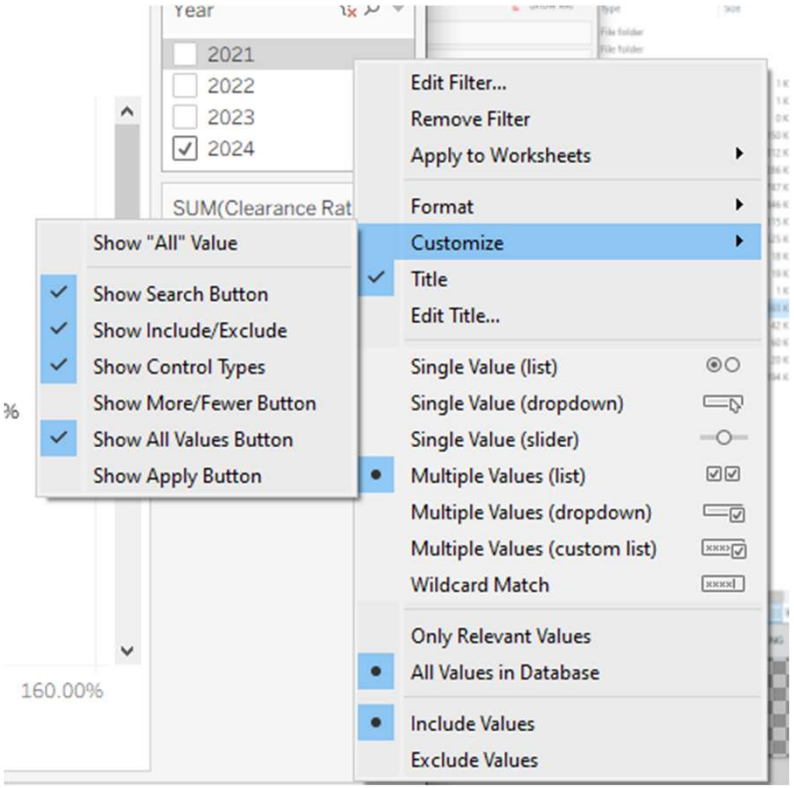
HEEA

Fix date



HEEA

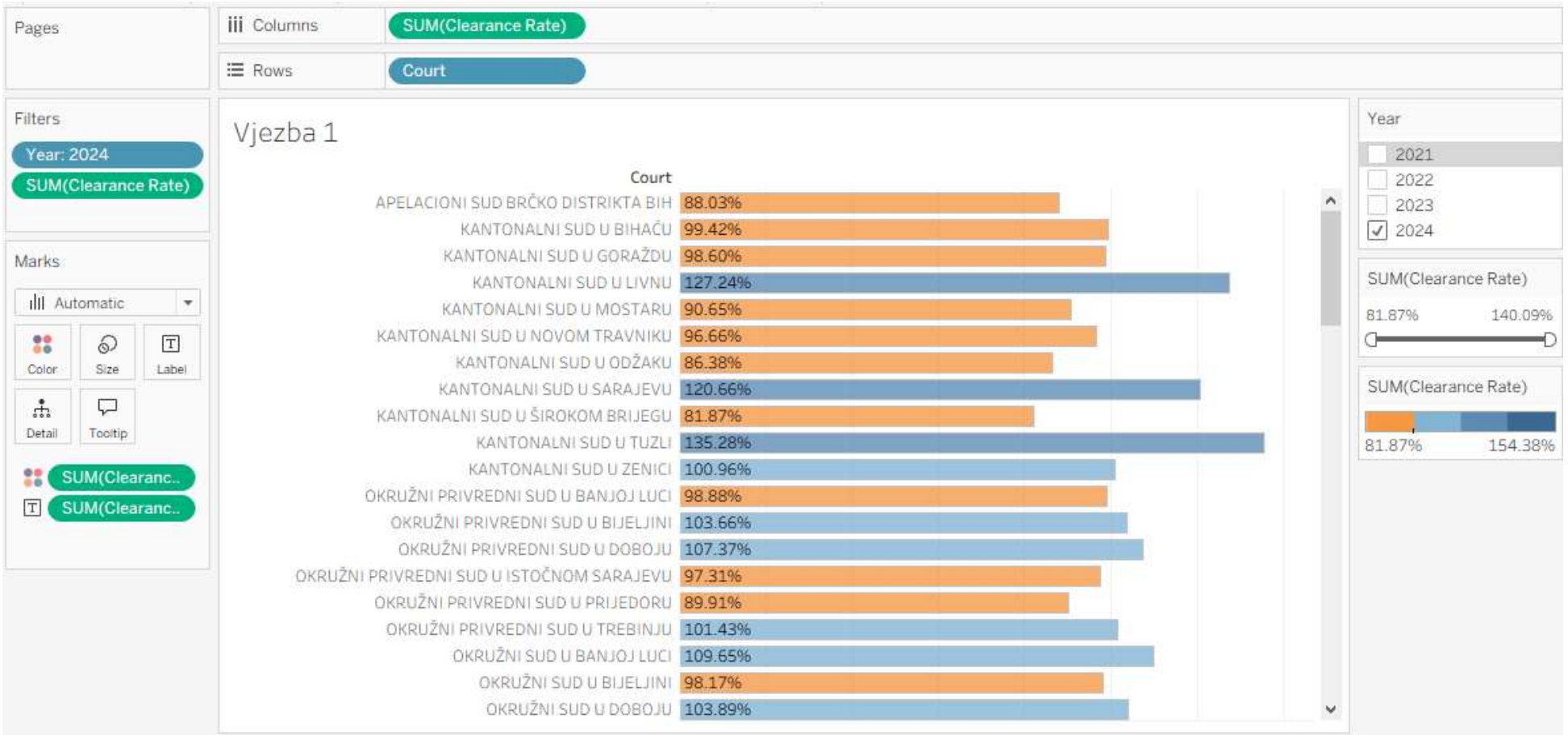
Remove “all” values from year



tableau

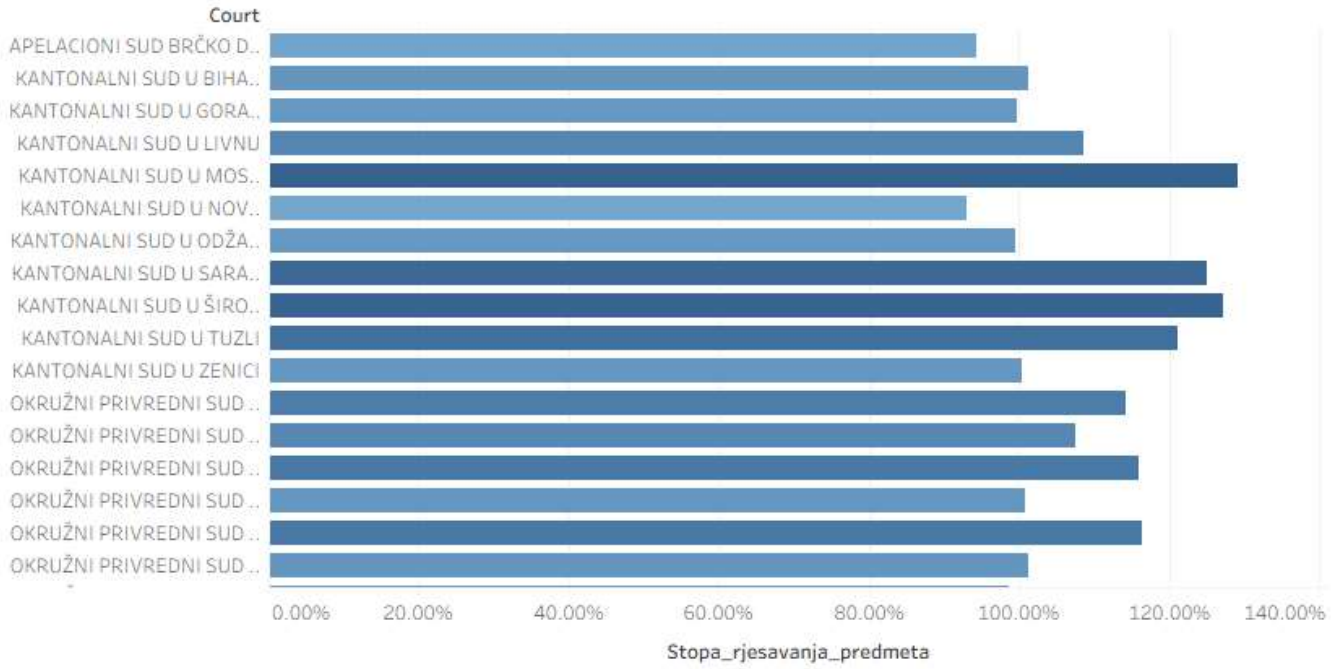
HEEA

Hands on exercise 1 - solution



tableau

Hands on exercise 2 (calculated fields)

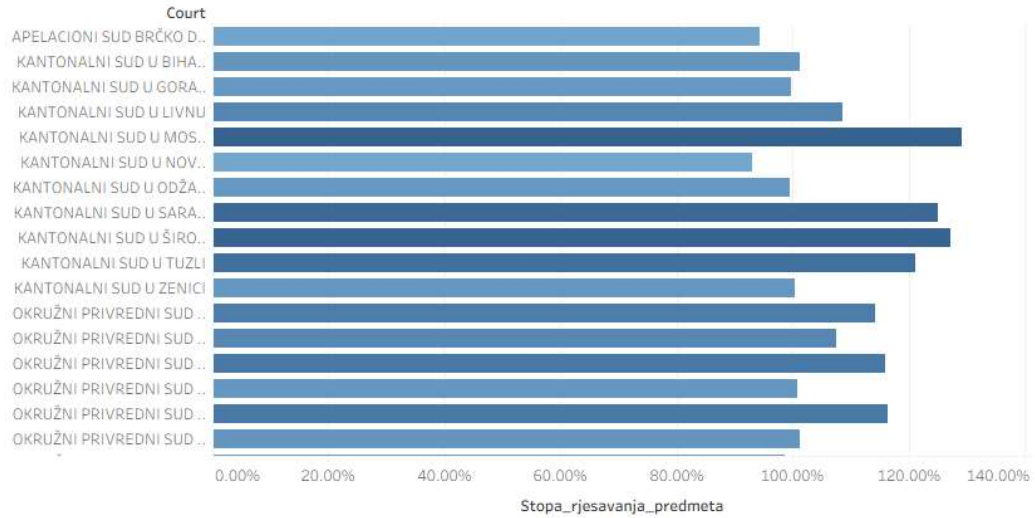


Data Sheet: Vjezba 2

HEEA

Hands on exercise 2 (calculated fields)

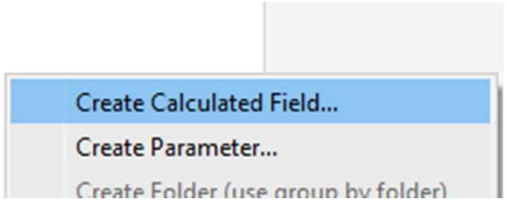
- Create new Tableau Public File
- Connect to VSTV Tableu data_V2.xlsx data source
- Load data Sheets Vjezba 2
- Show BarChart showing names of courts vs stopa_rjesavanja_predmeta
- Note: stopa_rjesavanja_predmeta is calcuated field
- Note: check year, check data in tables, filter only 2021
- Format: Stopa rjesevanja predmeta in %
- Filter: Remove option to select ALL years
- Extend name of courts.

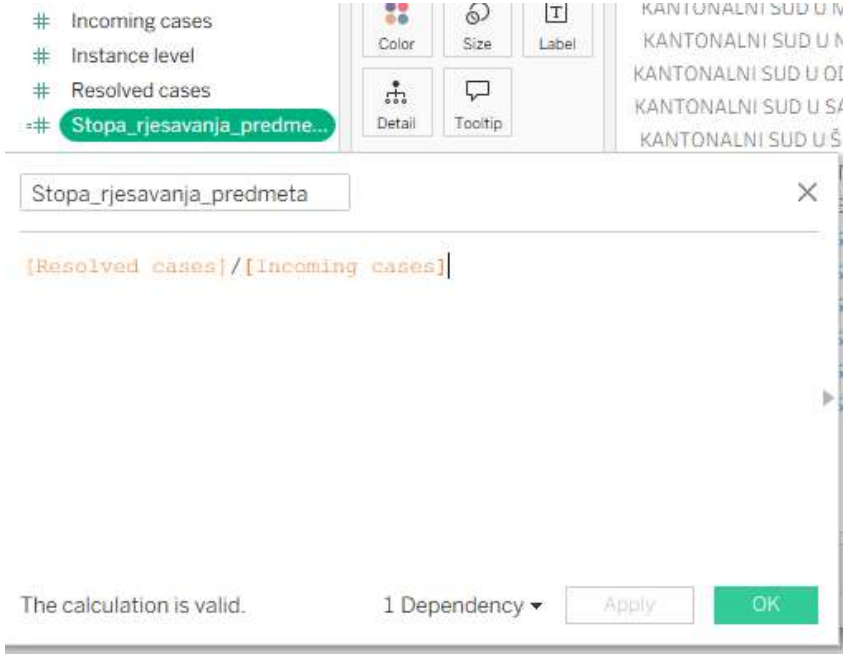


tableau

HEEA

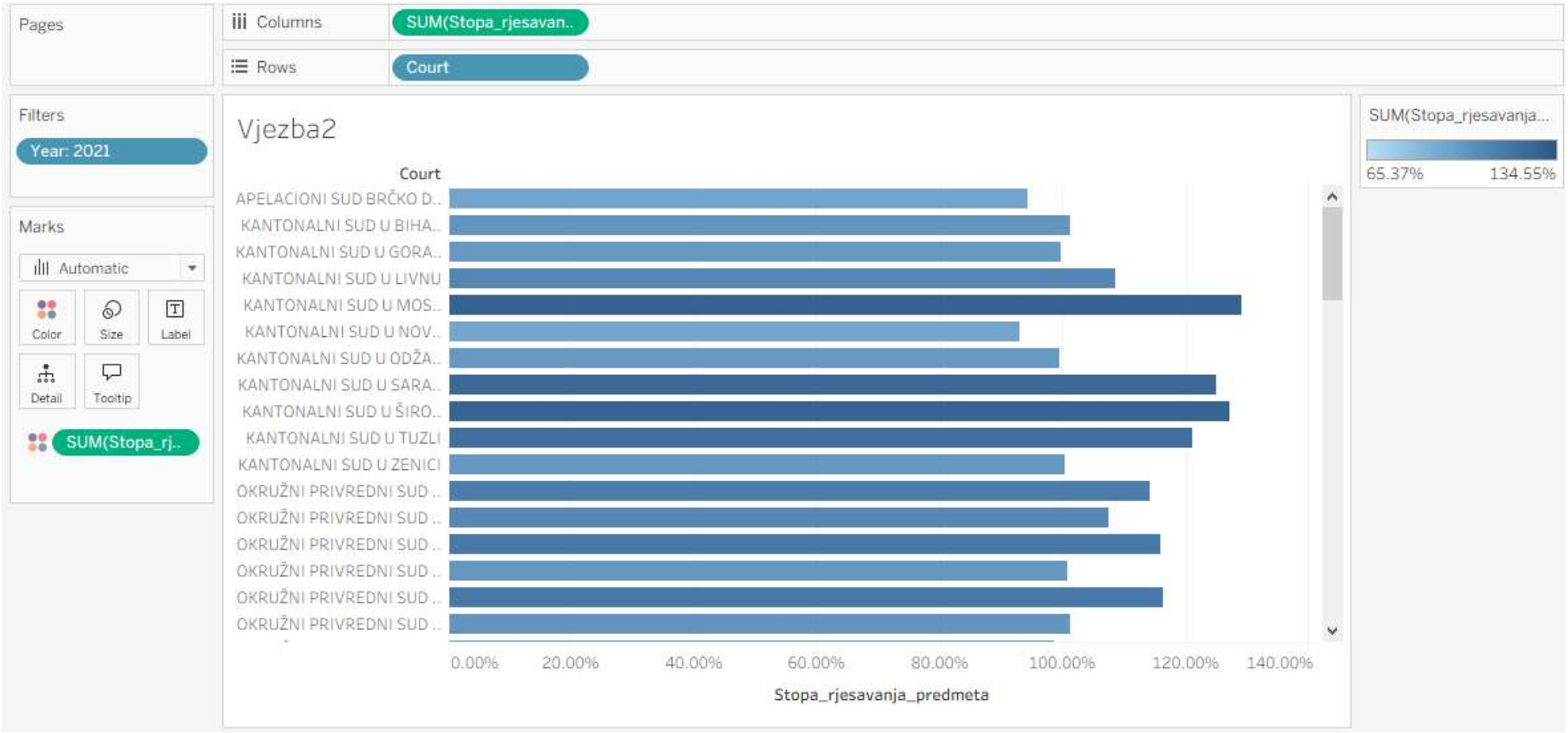
Calculated field





HEEA

Hands on exercise 2 - solution

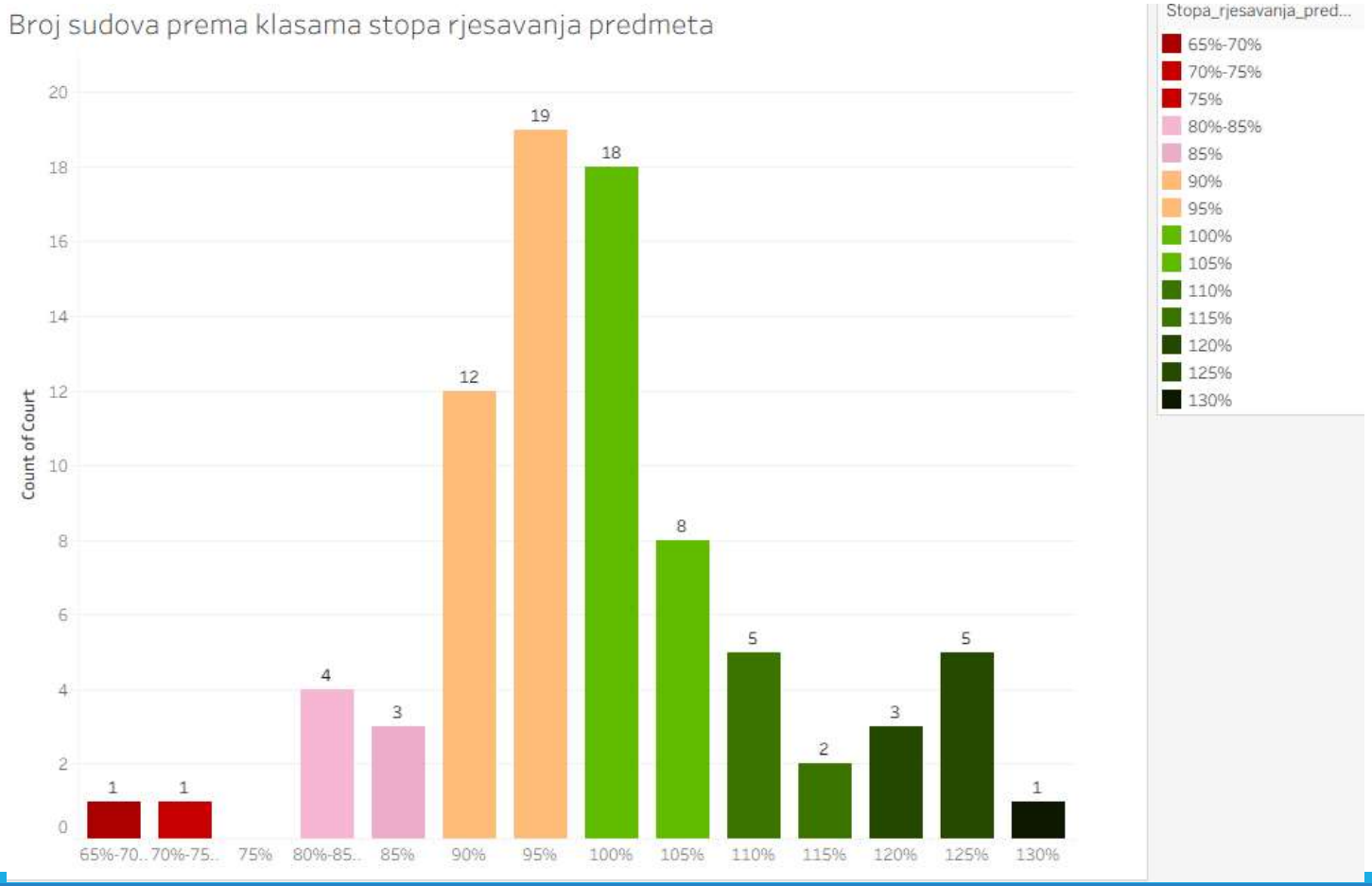


tableau

HEEA

Hands on exercise 3

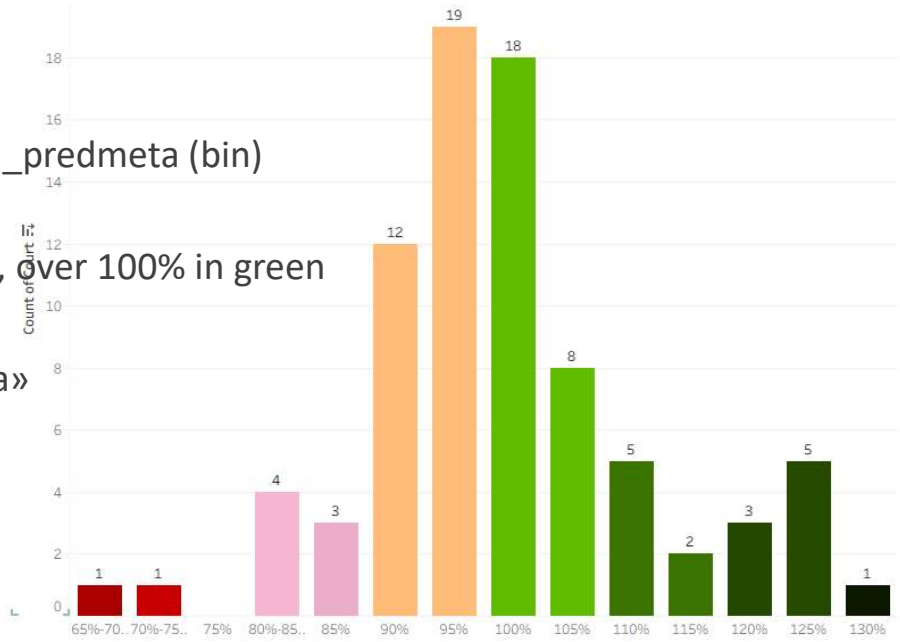
Data Sheet: Vjezba 2



tableau

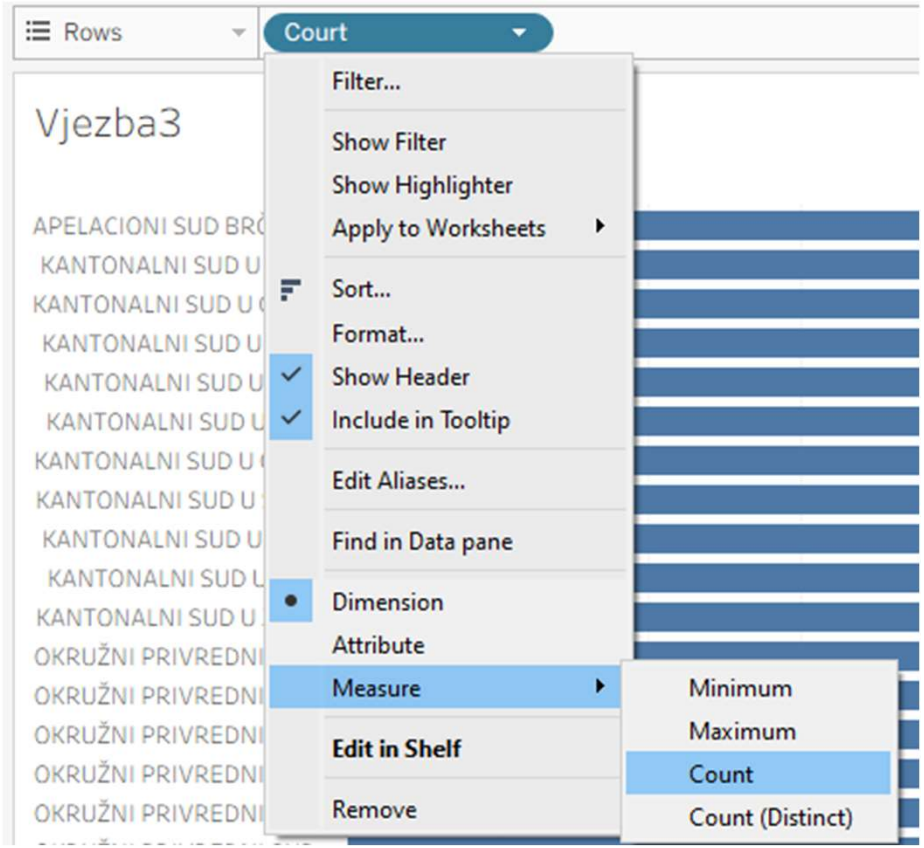
Hands on exercise 3

- Create new sheet “3”
- Note: stopa_rjesavanja_predmeta is calcuated field created in previous exercise
- Note: check year, check data in tables, filter only 2021
- Use data Sheets Vjezba 2
- Format: Stopa rjesevanja predmeta in %
- Create bin: Stopa rjesavanja predmeta, size of bins is 0.05
- Filter: Remove option to select ALL years
- Show BarChart showing names of count(courts) vs stopa_rjesavanja_predmeta (bin)
- Show number of courts in each bin (on the chart)
- Create special color map to color low performing courts in red color, over 100% in green
- Replace bin axes labels from 65.00% to 65%-70%
- Give it lable «Broj sudova prema klasama stopa rjesavanja predmeta»



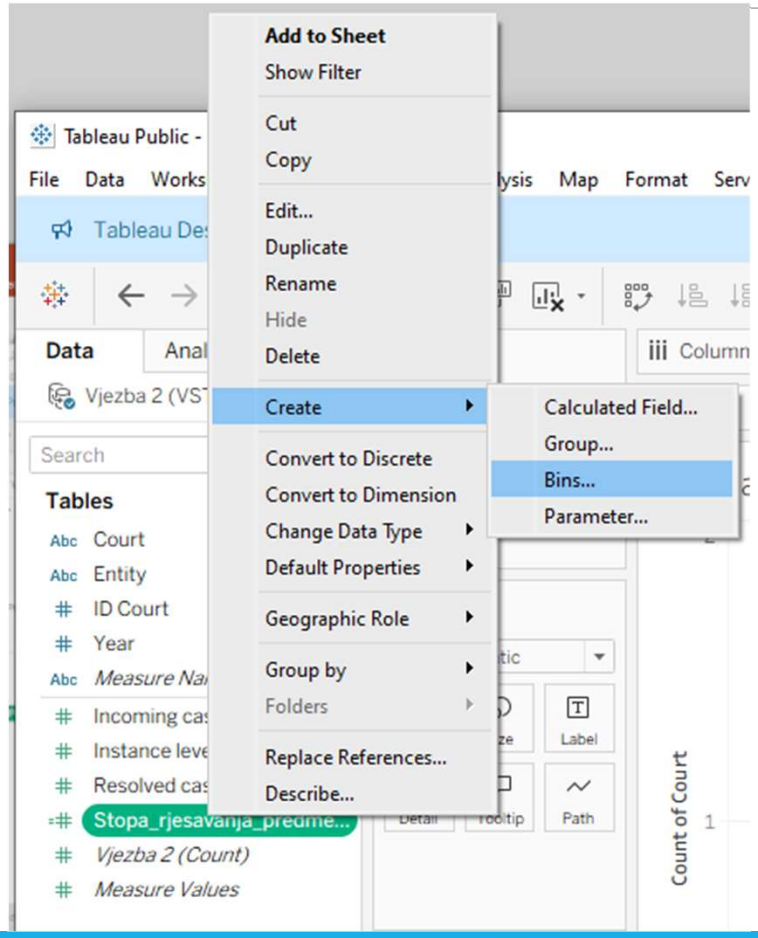
HEEA

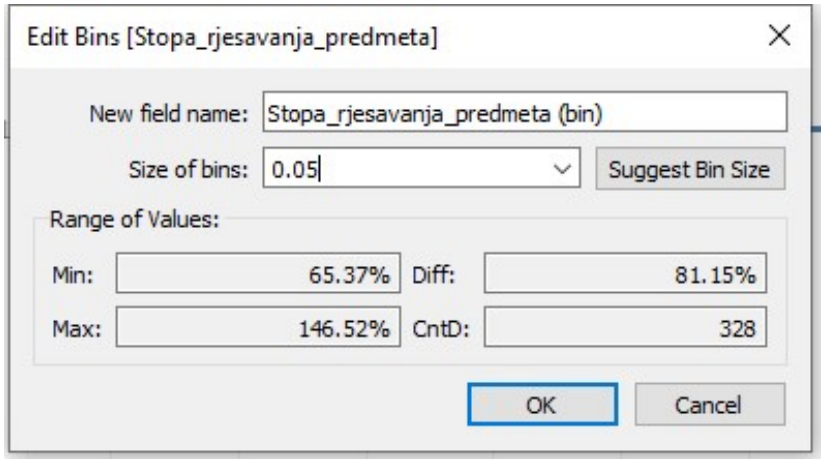
Covert to number of courts, not names



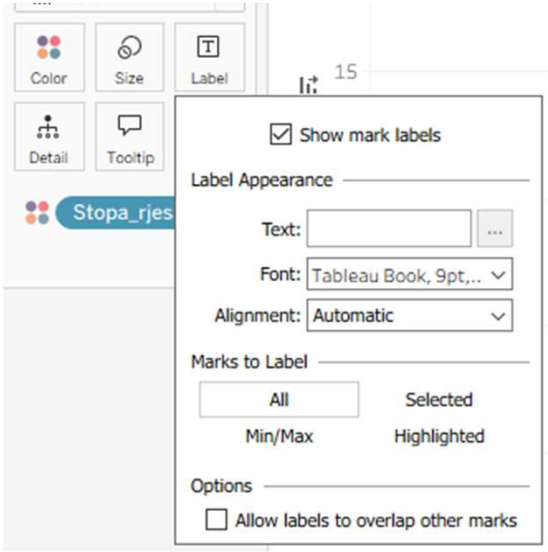
tableau

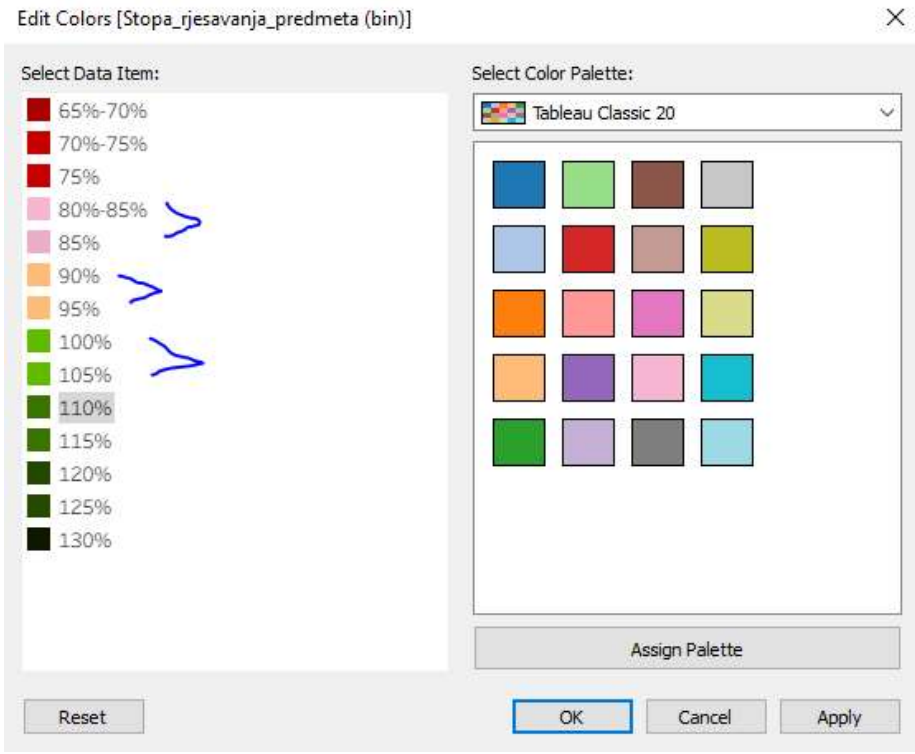
Create bin


Add to Sheet
Show Filter
Cut
Copy
Edit...
Duplicate
Rename
Hide
Delete
Create
Convert to Discrete
Convert to Dimension
Change Data Type
Default Properties
Geographic Role
Group by
Folders
Replace References...
Describe...
Calculated Field...
Group...
Bins...
Parameter...
Tableau Public -
File
Data
Works
Map
Format
Data
Search
Tables
Court
Entity
ID Court
Year
Incoming cas
Instance leve
Resolved cas
Stopa_rjesavanja_predme...
Vjezba 2 (Count)
Measure Values
Label
Path
Count of Court


Edit Bins [Stopa_rjesavanja_predmeta]
New field name:
Stopa_rjesavanja_predmeta (bin)
Size of bins:
0.05
Suggest Bin Size
Range of Values:
Min:
65.37%
Diff:
81.15%
Max:
146.52%
CntD:
328
OK
Cancel

Show marks – bin values and colors

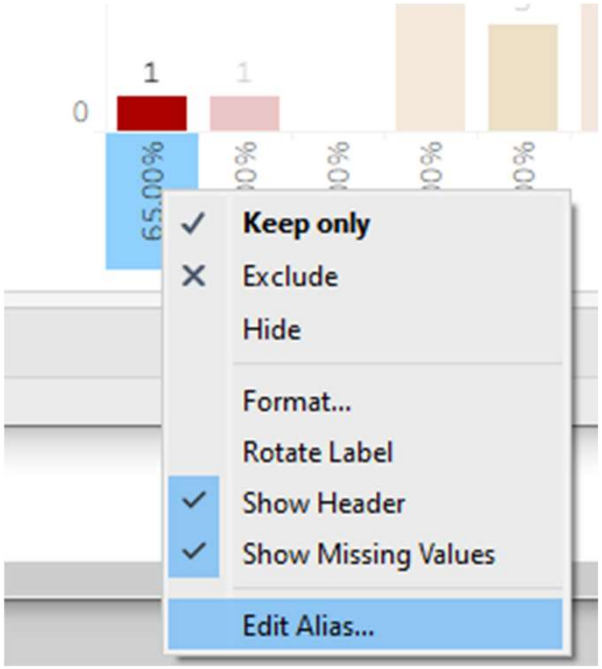


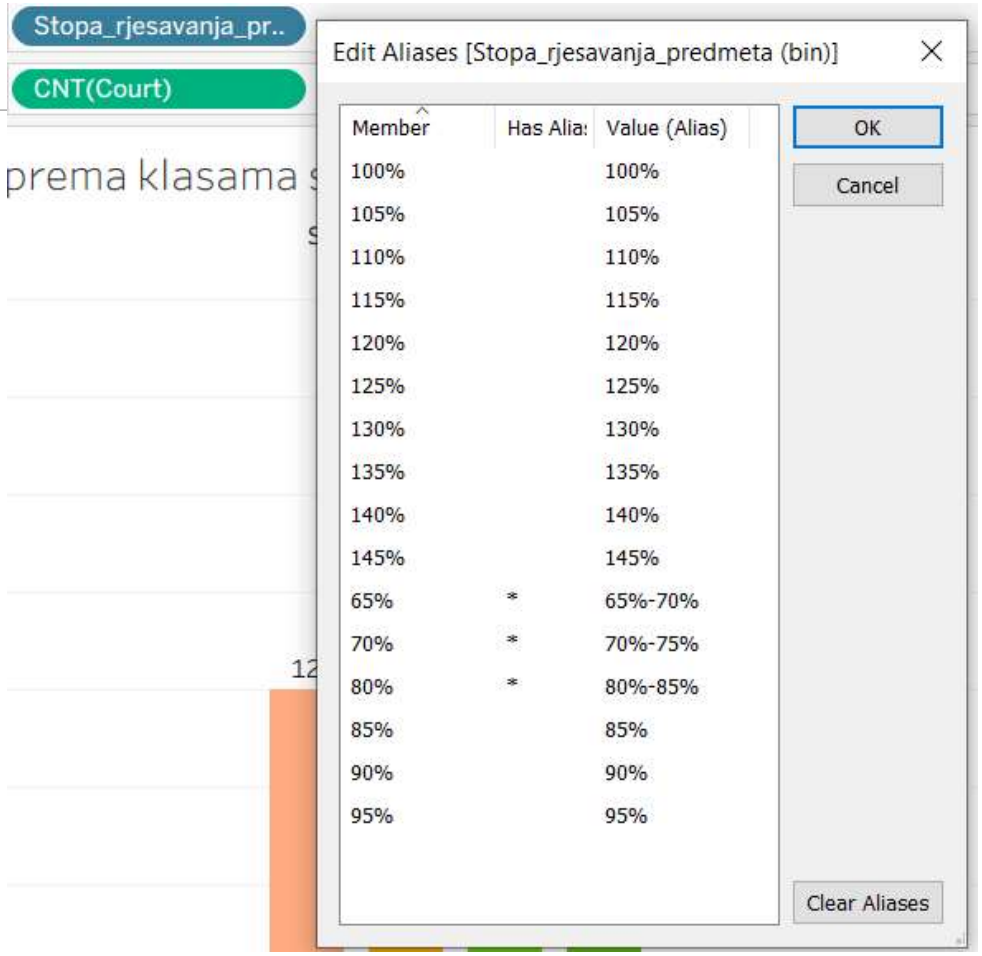


Same color on multiple values to help with grouping

HEEA

Lables


1
1
0
65.00%
Keep only
Exclude
Hide
Format...
Rotate Label
Show Header
Show Missing Values
Edit Alias...


Stopa_rjesavanja_pr..
CNT(Court)
prema klasama
Edit Aliases [Stopa_rjesavanja_predmeta (bin)]
Member
Has Alia
Value (Alias)
100% 100%
105% 105%
110% 110%
115% 115%
120% 120%
125% 125%
130% 130%
135% 135%
140% 140%
145% 145%
65% * 65%-70%
70% * 70%-75%
80% * 80%-85%
85% 85%
90% 90%
95% 95%
OK
Cancel
Clear Aliases

HEEA

Hands on exercise 3 - solution



tableau