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 (done)~~	~~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/

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Day 4 agenda

- ✓9:00 – 11:00 Tableau functions, Hands on – Day2 continue
- ✓**11:00-11:30 – Lunch break**
- ✓11:30: 12:50 - Hands on Dashboard
- ✓**12:50: 13:00 – coffee break**
- ✓13:10: 14:10 – Hands on Dashboard

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Objectives – Day 4

Tableau details

- Export options
- File formats
- How to refresh data?
- Fix missing data source

Hands-on

- Re-create sample charts

Dashboard

- Dashboard design
- Create sample dashboard
- Create navigation menu

Map

- Mapping sample
- Mapping BiH

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Exports options

Data export

- **Cross-tab to Excel/CSV:** Export the data from a view as a cross-tab, which can then be saved as a .csv file
- **Data to Clipboard:** Copy data directly to the clipboard to paste into other applications.
- **Data to Microsoft Access:** Export data from a worksheet to a Microsoft Access database.
- **Data extract:** Create an extract file from your flow output in a .hyper or .csv file.

Image export

- **Copy as image:** Copy a view as an image to paste into another application.
- **Export to image (PNG):** Export the view as a .png image file.

PDF export

- **Export entire workbook or active sheet:** Export the entire workbook or the active sheet as a PDF.
- **Export as PDF:** Export the visualization as a PDF file.

Other options

- **PowerPoint:** Export a view as a PowerPoint file, which includes the title, date, and an image of the page.

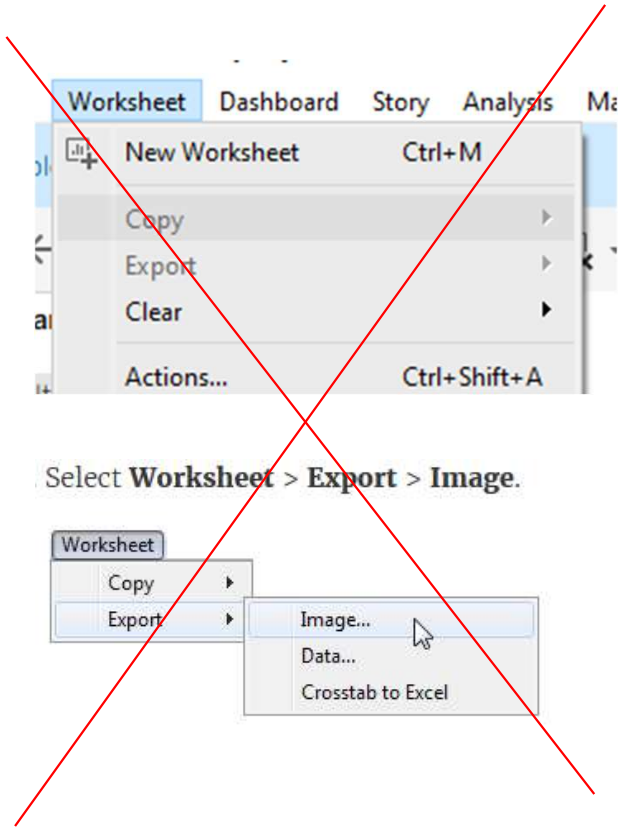
Share Tableau

- Share file with other users (share *.twbx files)
- Share Tableau files with Tableau Viewer (need license)
- Share Tableau over Tableau public (PUBLIC)

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Export options (questions from day 3)

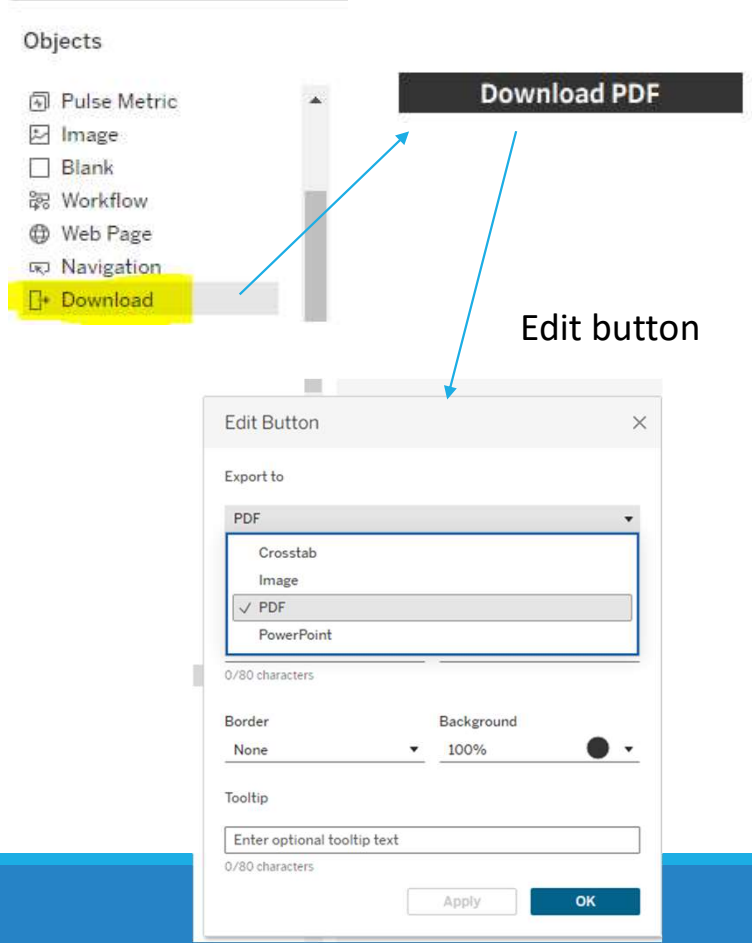
Not working



tableau

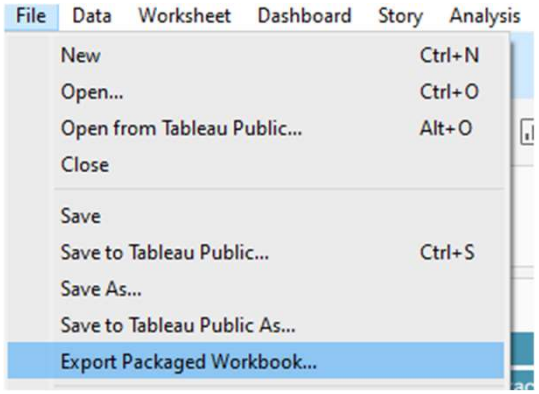
Export options (questions from day 3)

Export dashboard (PDF)

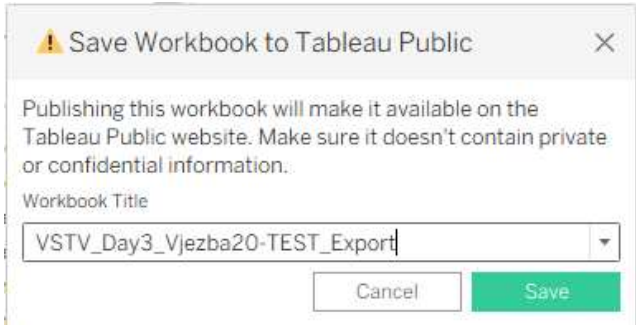


Export charts to public, then click download

1



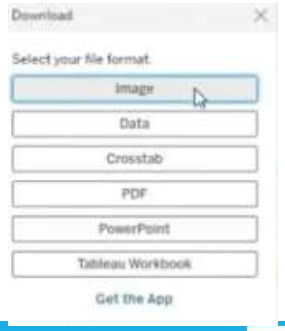
2



3



4

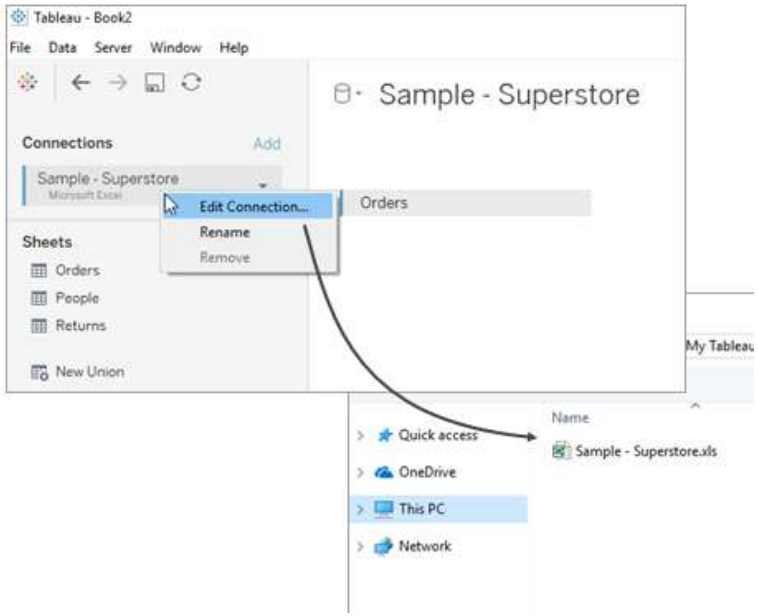


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Change the location of a data source

Right-click the Data from top menu, then on data source you wish to edit in the data pane.

- From the menu, select Edit Connection.
- In the Edit Connection dialog box, you have two options:
- Navigate to the new location of the data source by browsing your computer's file system.
- Select a new data source altogether by clicking on the Browse button and choosing a different file.
- After you have selected the new location or data source, select OK to save the changes.

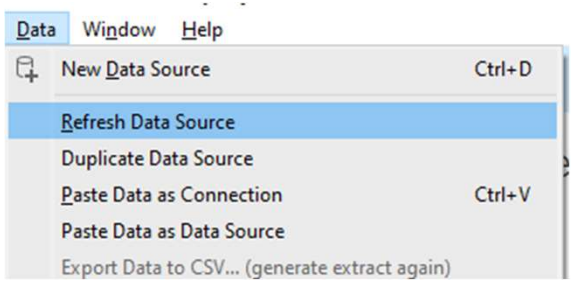


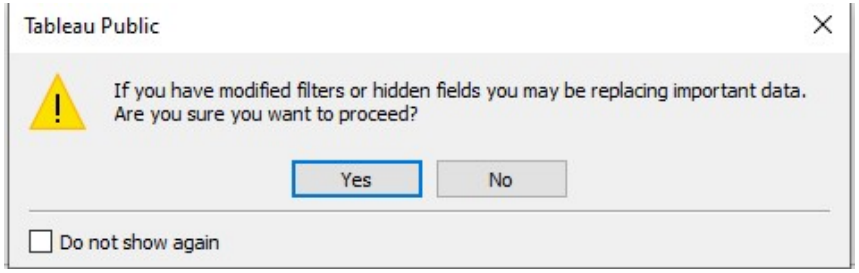
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Refresh a data source

To refresh data (update excel data) Go to Data menu, Refresh Data Source

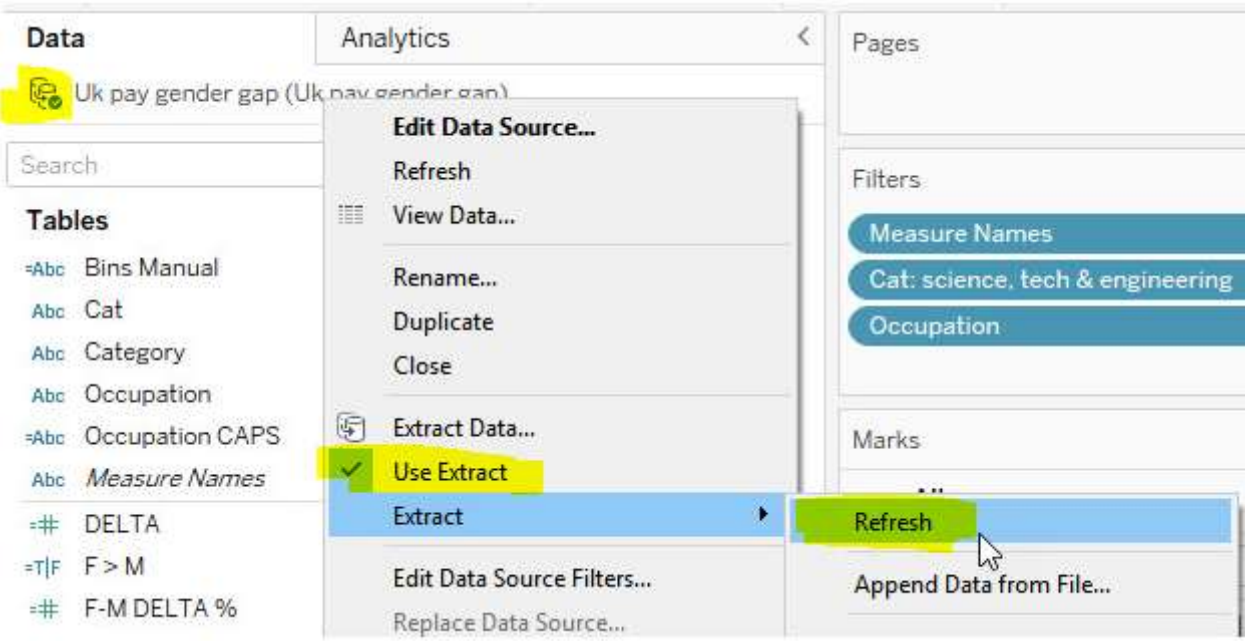




Always, always make back copy of original file ".twb". Only do this on cloned Tableau file - sometimes if file and data format is not identical Vis will breaker and can not be fixed easily.

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Refresh data if data source is Extract



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File types

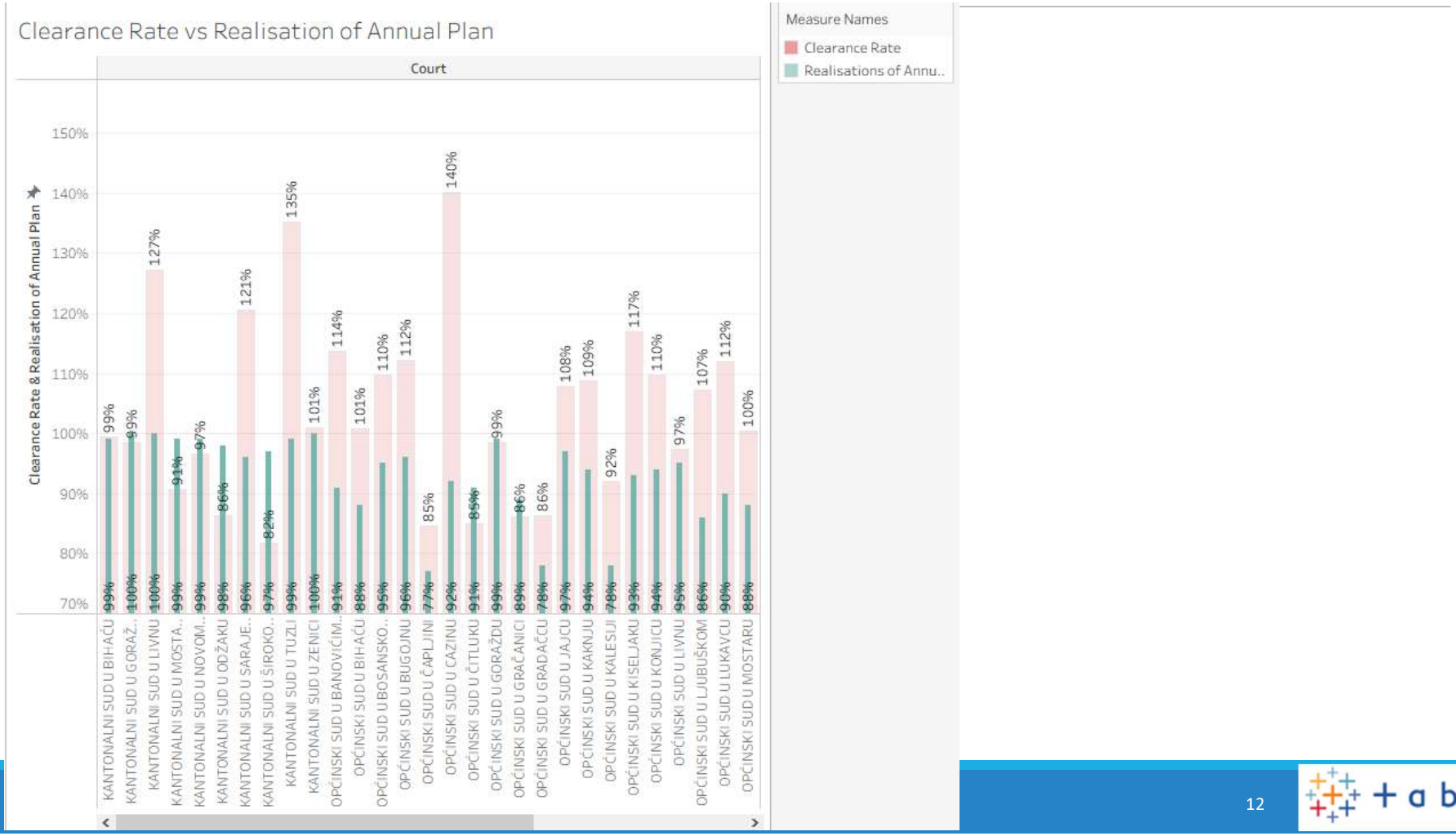
File Type	File Extension	Description
Tableau Workbook	.twb	An XML file containing information about worksheets, dashboards, stories, and how they are built. It does not include the data itself.
Tableau Packaged Workbook	.twbx	A compressed file containing a .twb file and all the data that the workbook uses, including local file data and images.
Tableau Data Source	.tds	Contains information for connecting to a data source but does not include the data itself.
Tableau Packaged Data Source	.tdsx	A compressed file containing a .tds file along with local file data, such as extract files or Excel files.
Tableau Data Extract	.hyper **(newer)** or .tde **(older)**	A snapshot of the data used for faster performance. The .hyper format is the newer, more efficient version.

Other file types

Tableau Bookmark: **.tbm** - Used to save a single worksheet from a workbook.
Tableau Map Source: **.tms** - Used to connect to non-supported map servers.
Tableau Preference: **.tps** - Stores user preferences, such as custom color

Hands on exercise 20

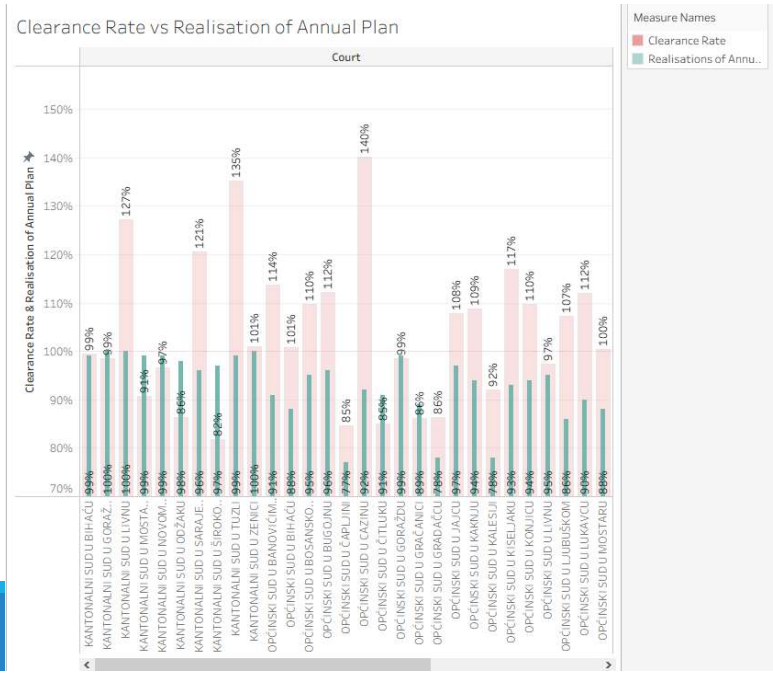
Data Sheet: Pregled_new



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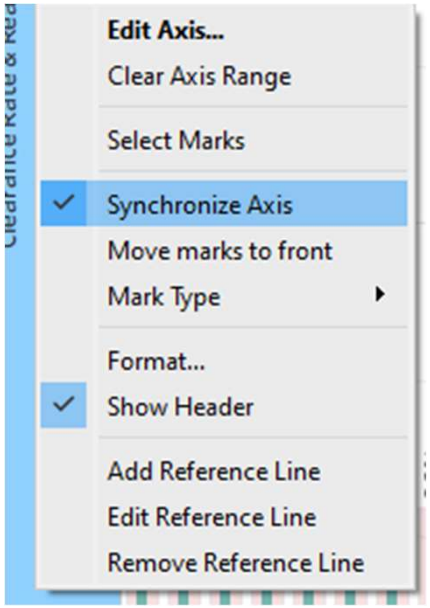
Hands on exercise 20

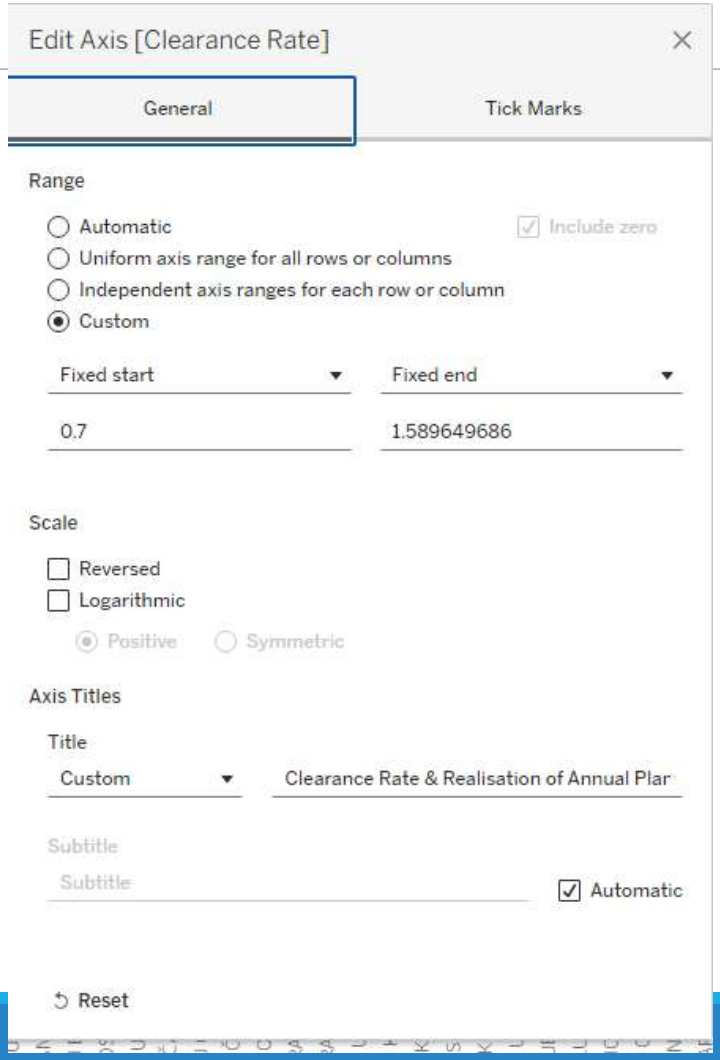
- Create new sheet “20”
- Use data Sheets _pregled NEW
- Drag “Court” to Columns , Drag Clearance Rate, Realization of annual plan to Rows
- Dual Axes
- Change **size** or each axes, change **color** of each axes
- Synchronize Axes
- Start Axes from 70%
- Filter: Entity (Federation only) , Filter 2024
- Give it a lable «Clearance Rate vs Realisation of Annual Plan»



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Axes

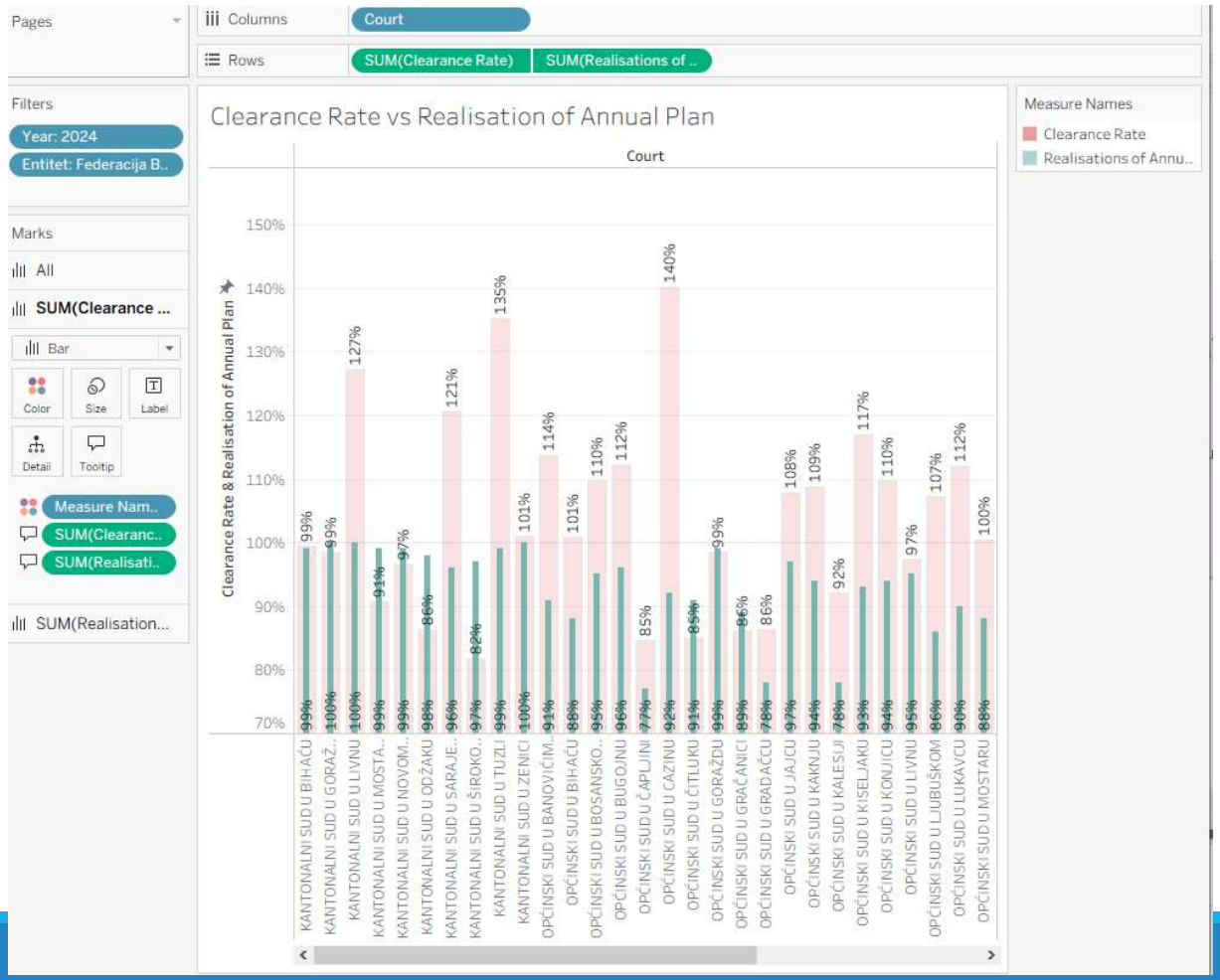




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Hands on exercise 20 - Solution

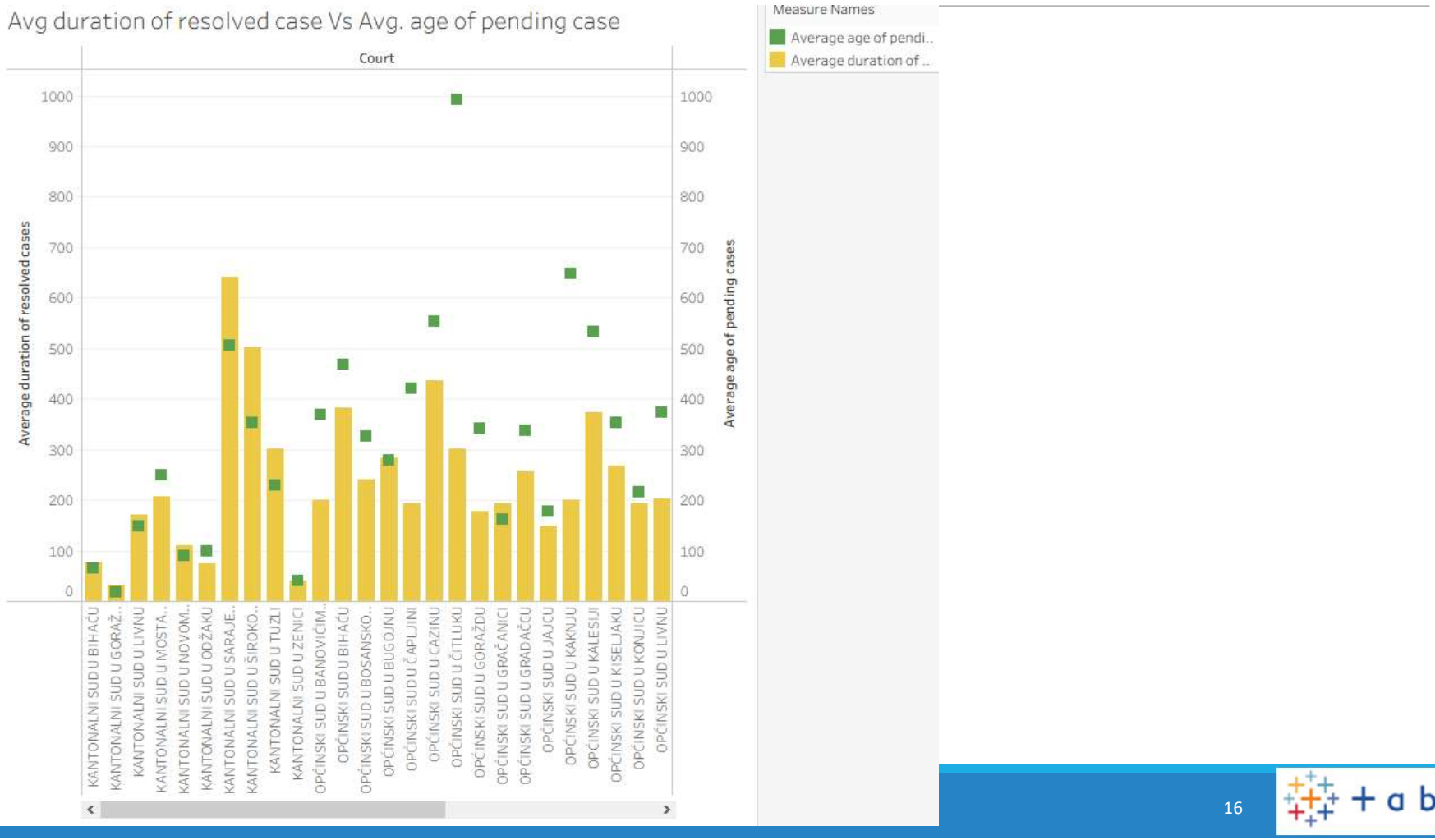


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Hands on exercise 21

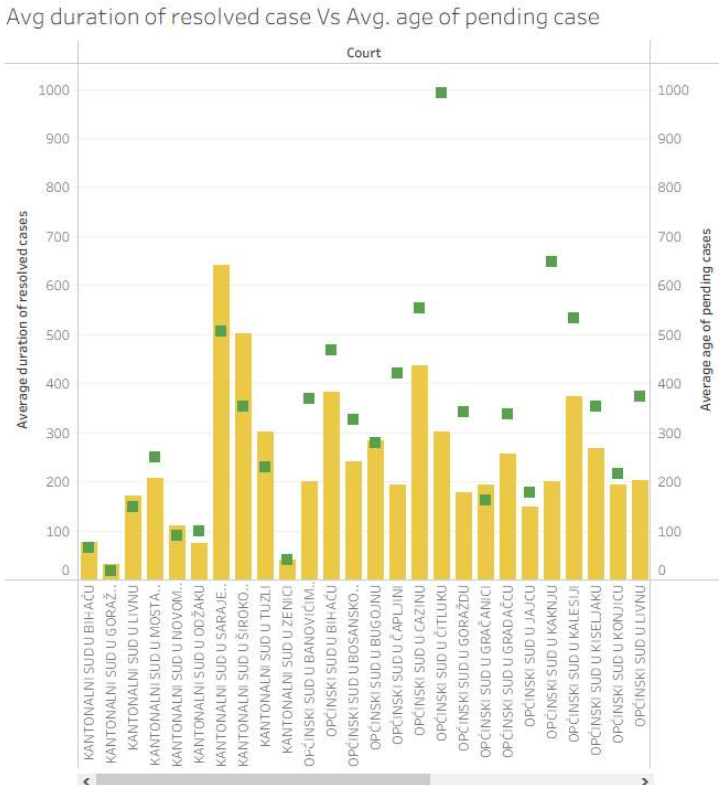
Data Sheet: Pregled_new



tableau

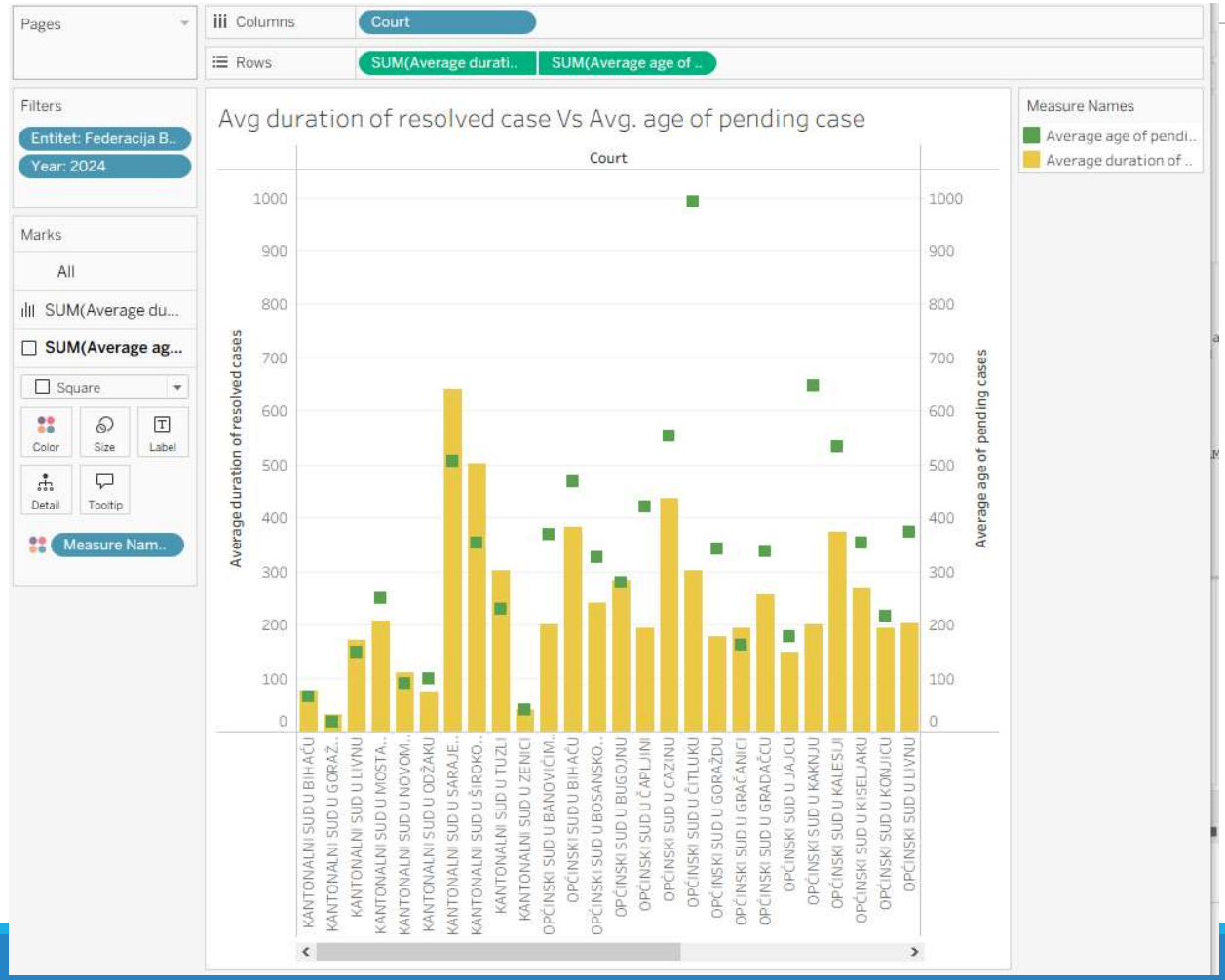
Hands on exercise 21

- Create new sheet “21”
- Use data Sheets _pregled NEW
- Drag “Court” to Columns , Drag Average Duration, Average Age of pending case to Rows
- Dual Axes
- Change **size** or each axes, change **color** of each axes
- Set Average age of pending case to be **Square**
- Synchronize Axes
- Filter: Entity (Federation only) , Filter 2024
- Give it a lable «Avg duration of resolved case Vs Avg. age of pending case»



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Hands on exercise 21 - Solution



tableau

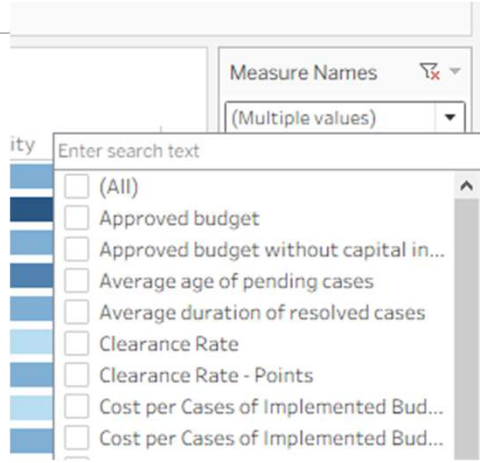
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Hands on exercise 22 – Dynamic fields

Data Sheet: Pregled_new

Vjezba22

Court	Implementation of Annual ...	Realisations of Annual Plan	Statistical Quality
KANTONALNI SUD U BIHAĆU	117%	99%	87%
KANTONALNI SUD U GORAŽDU	32%	100%	100%
KANTONALNI SUD U LIVNU	106%	100%	89%
KANTONALNI SUD U MOSTARU	117%	99%	94%
KANTONALNI SUD U NOVOM TRAVNIKU	116%	99%	87%
KANTONALNI SUD U ODŽAKU	61%	98%	81%
KANTONALNI SUD U SARAJEVU	126%	96%	88%
KANTONALNI SUD U ŠIROKOM BRIJEGU	113%	97%	86%
KANTONALNI SUD U TUZLI	114%	99%	86%
KANTONALNI SUD U ZENICI	96%	100%	89%
OPĆINSKI SUD U BANOVIĆIMA	76%	91%	87%
OPĆINSKI SUD U BIHAĆU	110%	88%	91%
OPĆINSKI SUD U BOSANSKOJ KRUPI	83%	95%	88%
OPĆINSKI SUD U BUGOJNU	102%	96%	86%
OPĆINSKI SUD U ČAPLJINI	92%	77%	89%

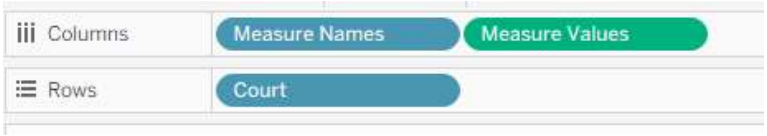


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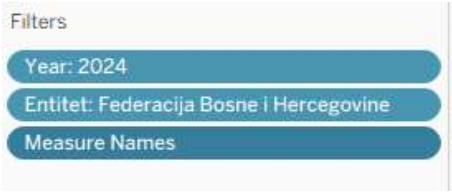
Hands on exercise 22

- Create new sheet “22”
- Use data Sheets _pregled NEW
- Drag “Mesure Names” (blue and greed) to Columns , Drag Court to Rows



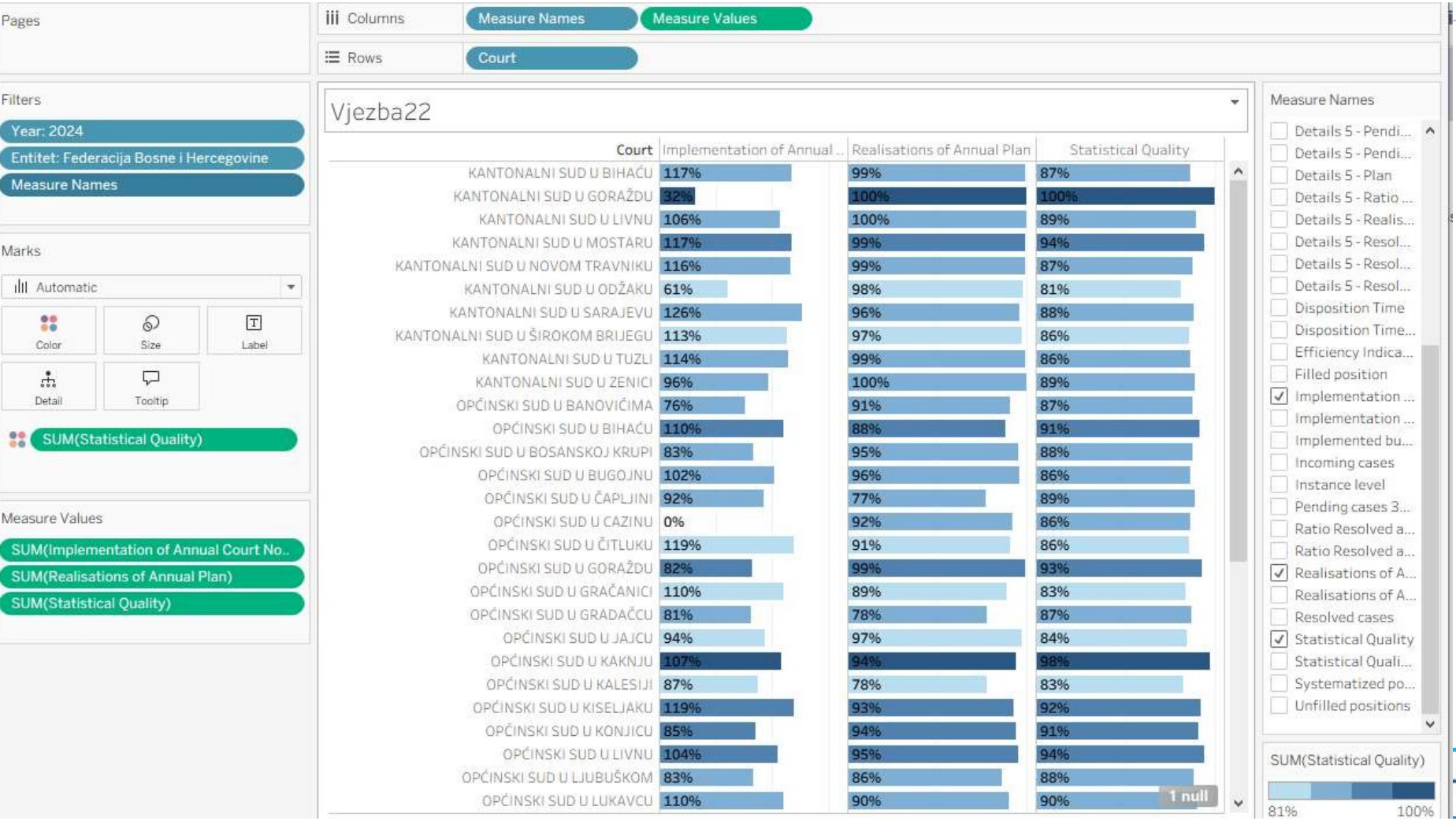


- Filter: Entity (Federation only) , Filter 2024, Measure names
- Show filter “Measure names”
- Give it a lable «Avg duration of resolved case Vs Avg. age of pending case»



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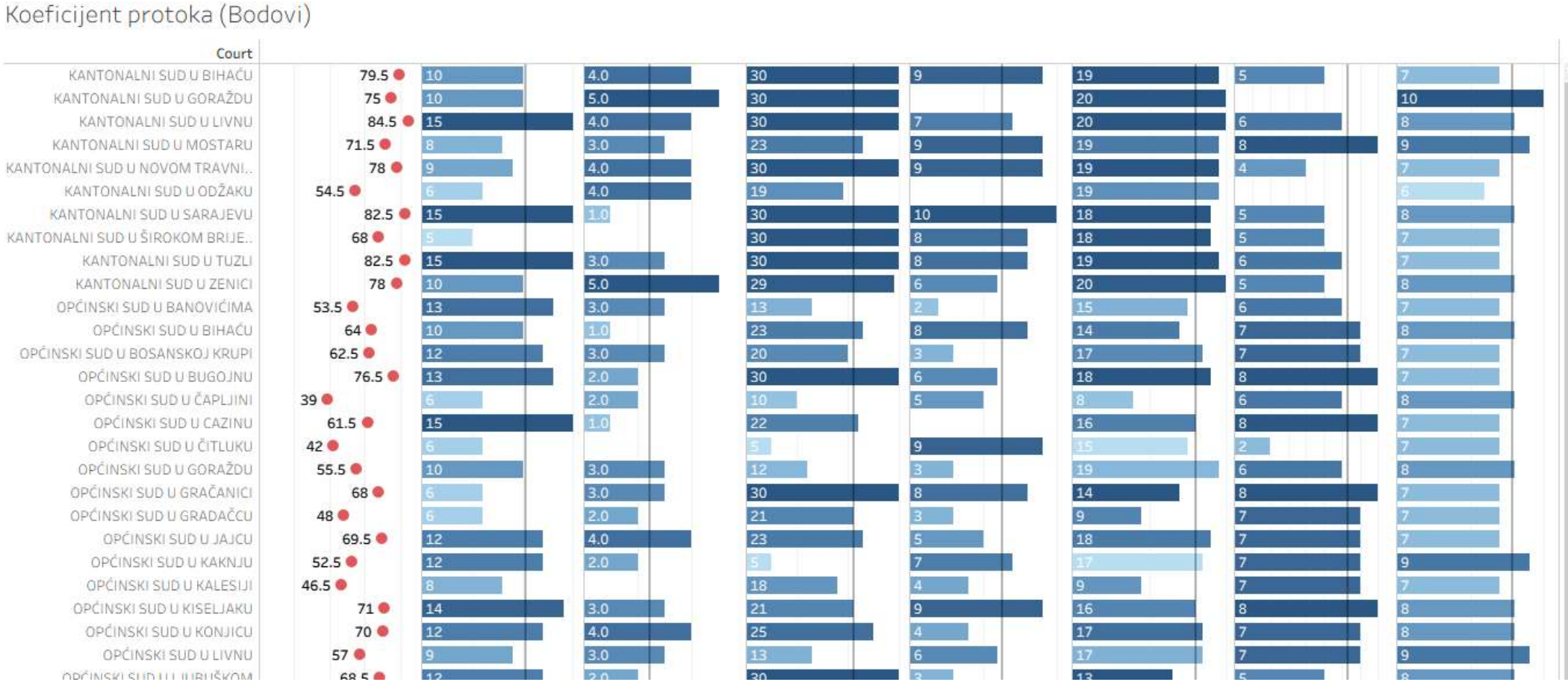
Hands on exercise 22 - Solution



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Hands on exercise 23

Data Sheet: Pregled_new



tableau

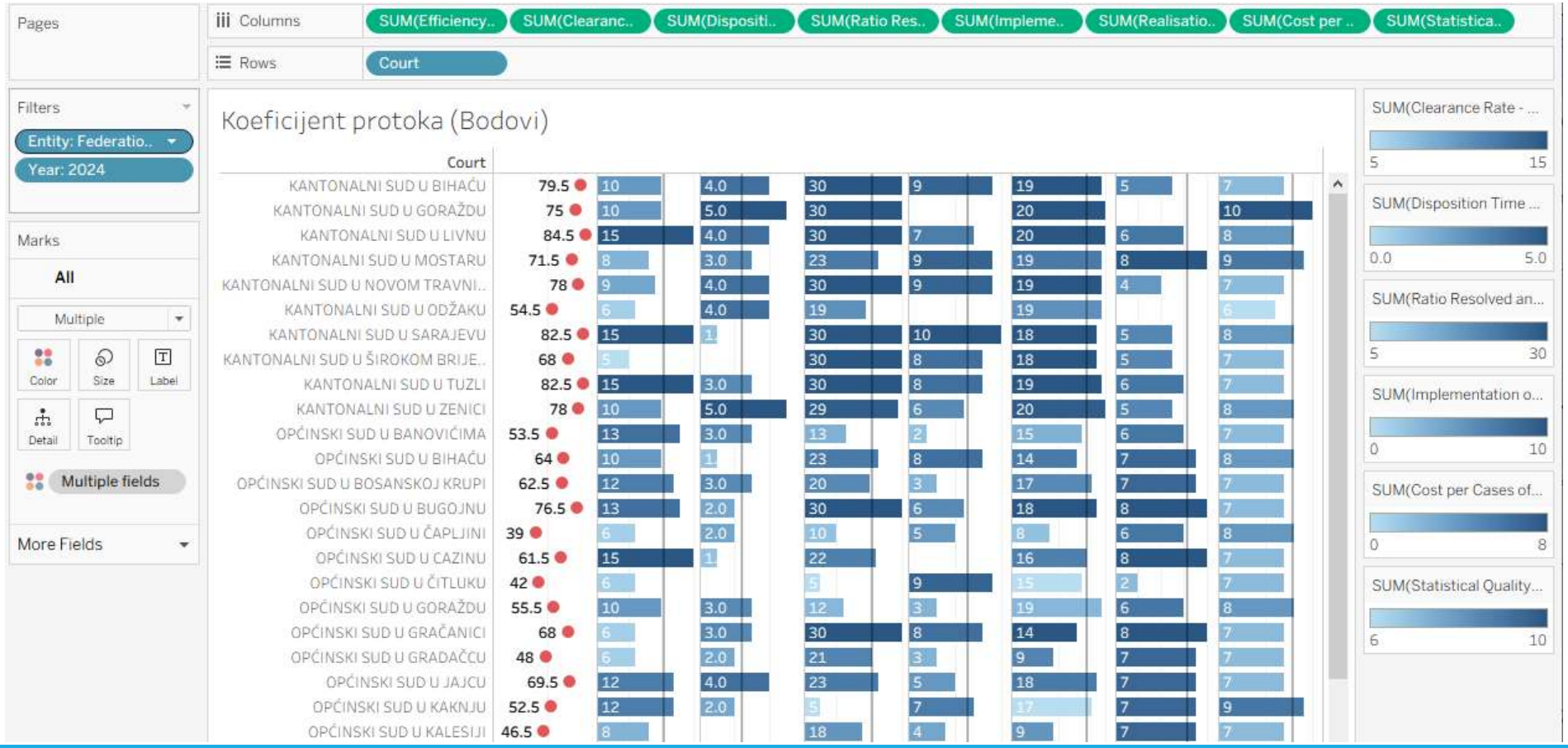
Hands on exercise 23

- Create new sheet “23”
- Use data Sheets _pregled NEW
- Drag “Efficiency Indicator, Clearance Rate – points, Disposition time-Point, Ration Resolved and , Implementation of annual Court Norm-points, Cost per Case of implementation Budget –points, Statistical Quality -points ” to Columns
- Drag Court to Rows
- Set “Efficiency Indicator” red circle
- Filter: Entity (Federation only) , Filter 2024
- Give it a lable «Koeficijent protoka (Bodovi)»



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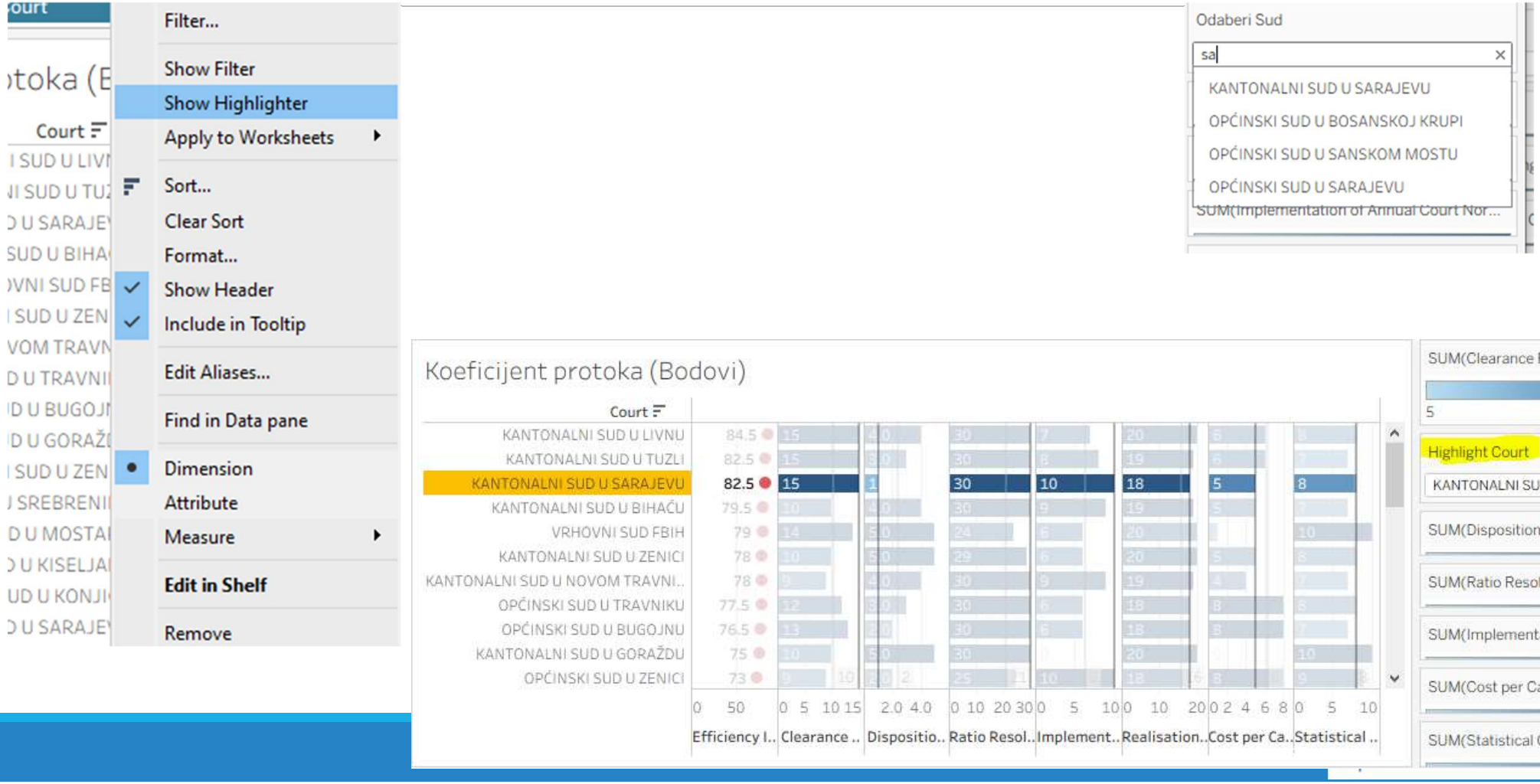
Hands on exercise 23 - Solution



tableau

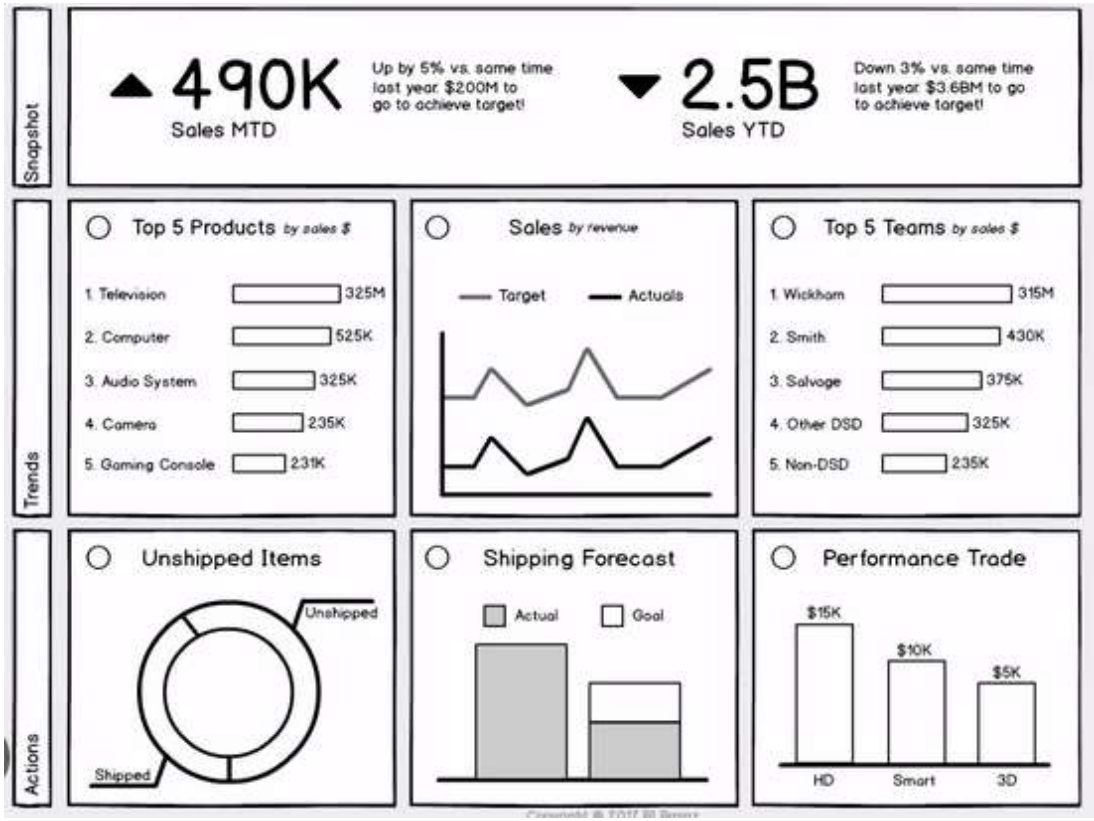
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Highlights example



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Dashboard - planning

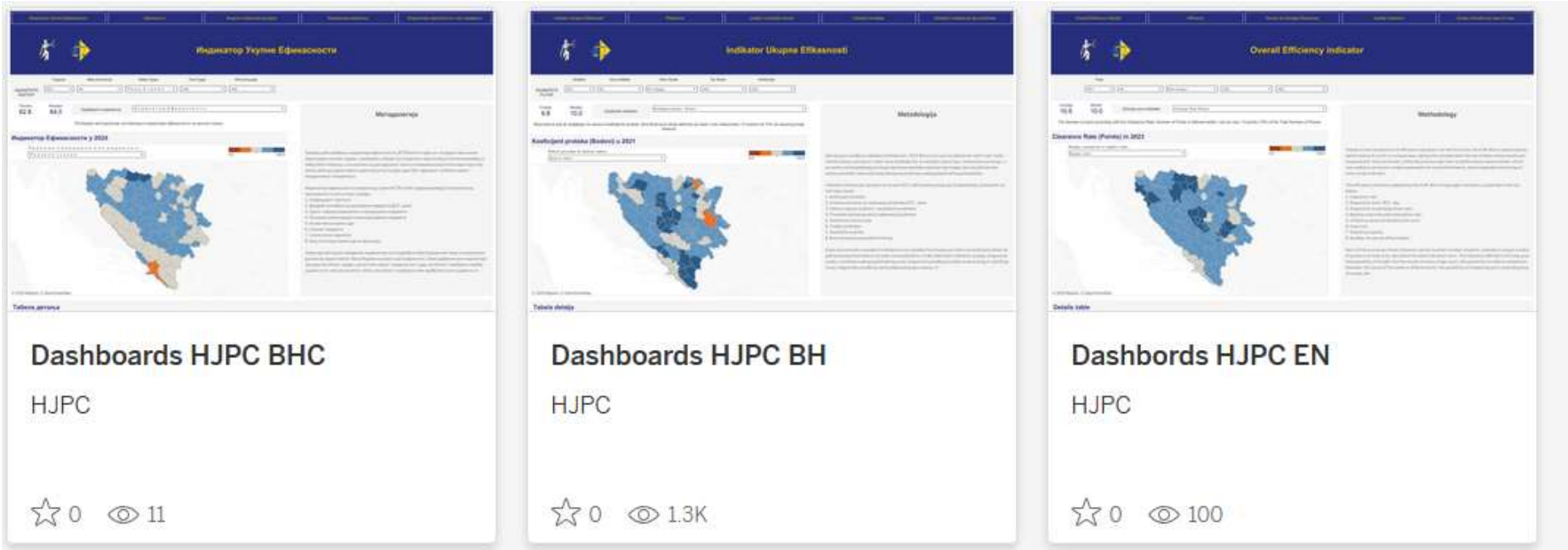




tableau

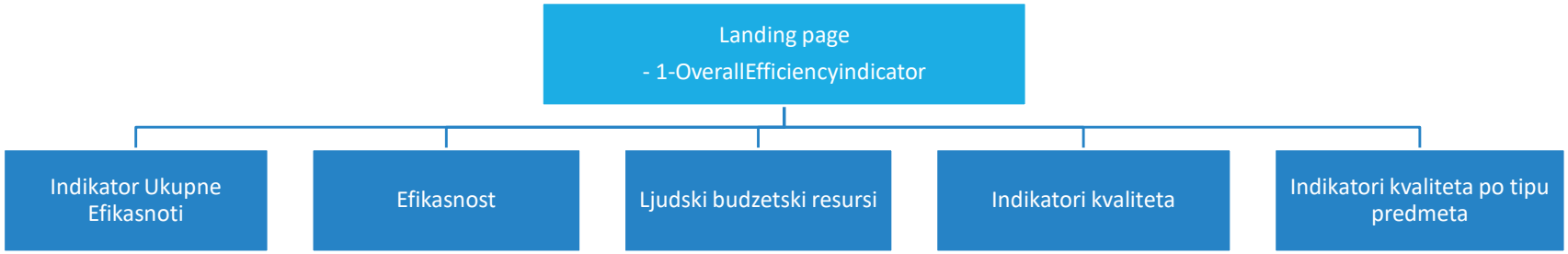
Current dashboard

It actually is 3 dashboards (language)



Current dashboard

Menu options

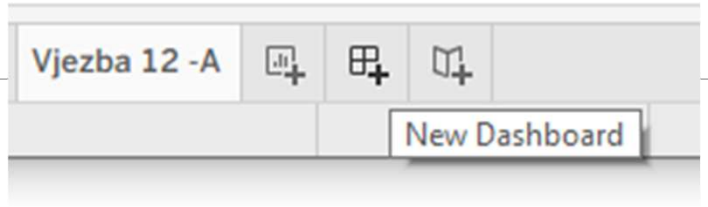




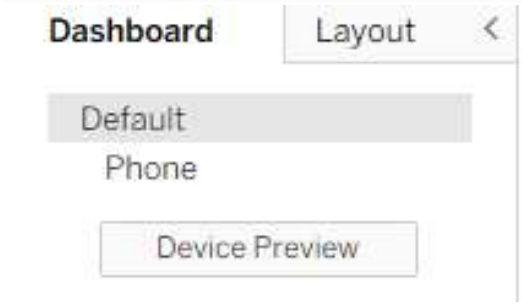
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Dashboard tools

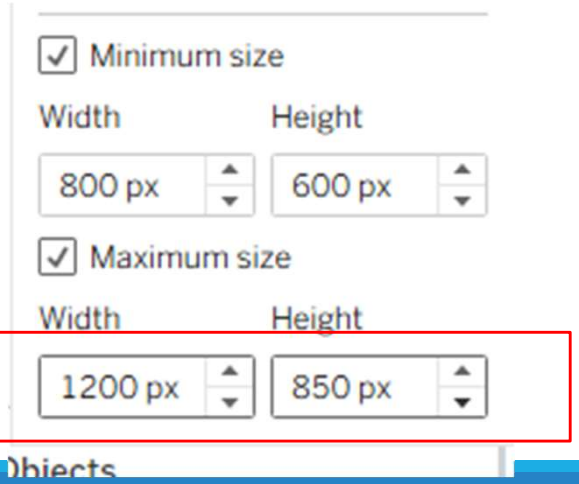
Create new dashboard



Pick device



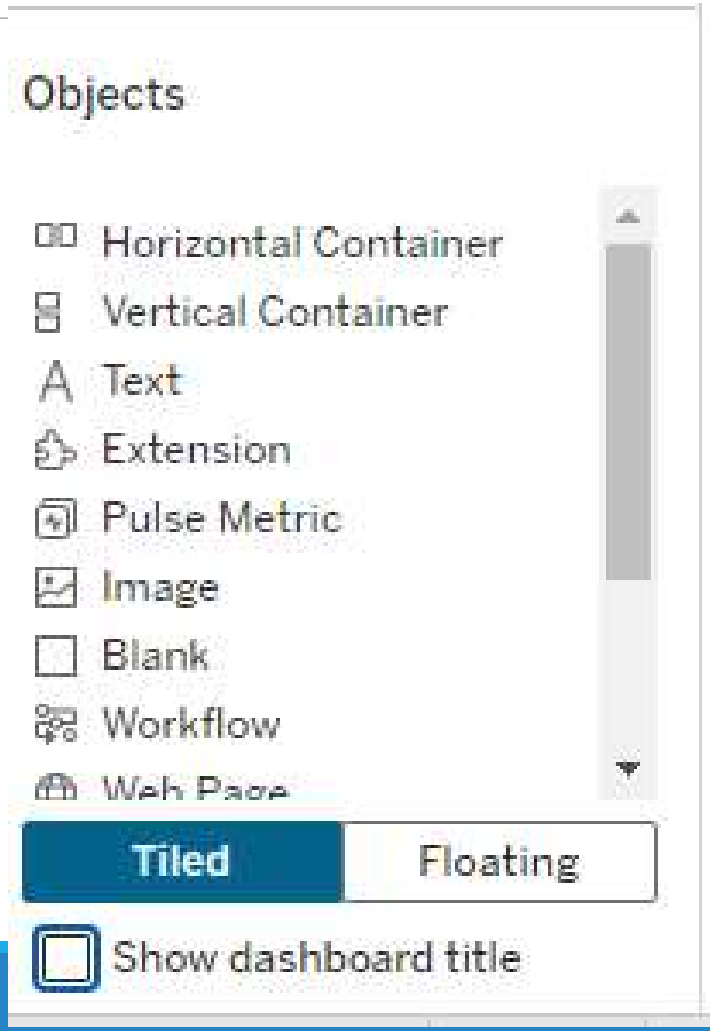
Size



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Dashboard

Type of objects



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Add container

Make skeleton

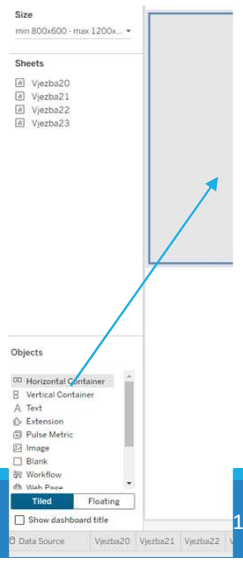
Select menu option Dashboard, Show title (enter new name)

Select **Tiled**

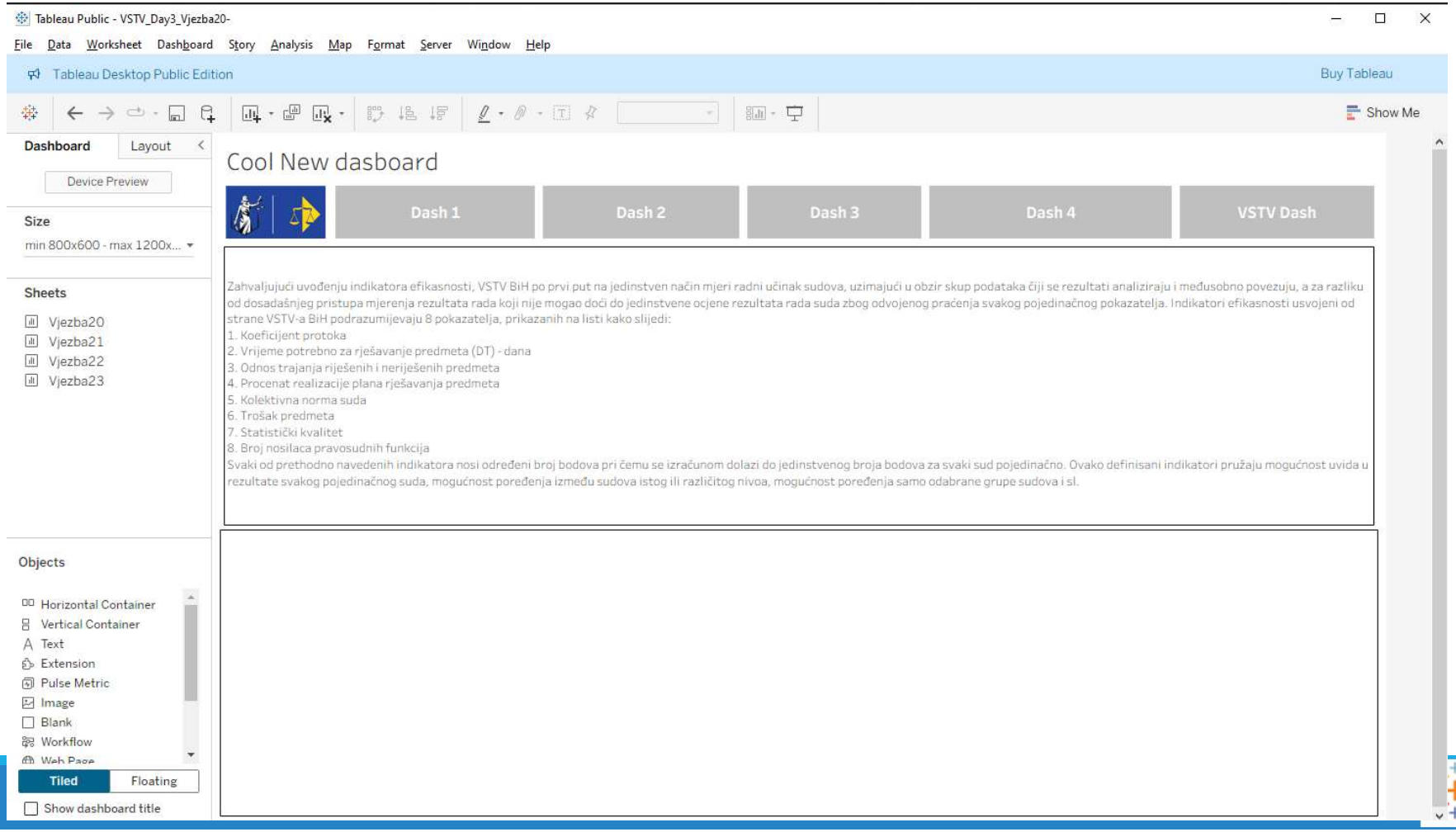
Select Vertical Container
- Drop Vertical container top

Select Horizontal Container
- Drop Horizontal container on top of Vertical Container

Select Vertical Container
- Drop Vertical container below existing Vertical
- Add text on first Vertical Container
- Add Navigation on top (repeat 4 times)
- Add image before first bouton on top



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Tableau Public - VSTV_Day3_Vjezba20-
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Tableau Desktop Public Edition
Buy Tableau
Show Me
Dashboard
Layout
Device Preview
Size
min 800x600 - max 1200x...
Sheets
Vjezba20
Vjezba21
Vjezba22
Vjezba23
Objects
Horizontal Container
Vertical Container
Text
Extension
Pulse Metric
Image
Blank
Workflow
Tiled
Floating
Show dashboard title
Cool New dasboard
Dash 1
Dash 2
Dash 3
Dash 4
VSTV Dash
Zahvaljujući uvođenju indikatora efikasnosti, VSTV BiH po prvi put na jedinstven način mjeri radni učinak sudova, uzimajući u obzir skup podataka čiji se rezultati analiziraju i međusobno povezuju, a za razliku od dosadašnjeg pristupa mjerenja rezultata rada koji nije mogao doći do jedinstvene ocjene rezultata rada suda zbog odvojenog praćenja svakog pojedinačnog pokazatelja. Indikatori efikasnosti usvojeni od strane VSTV-a BiH podrazumijevaju 8 pokazatelja, prikazanih na listi kako slijedi:
1. Koeficijent protoka
2. Vrijeme potrebno za rješavanje predmeta (DT) - dana
3. Odnos trajanja riješenih i neriješenih predmeta
4. Procenat realizacije plana rješavanja predmeta
5. Kolektivna norma suda
6. Trošak predmeta
7. Statistički kvalitet
8. Broj nosilaca pravosudnih funkcija
Svaki od prethodno navedenih indikatora nosi određeni broj bodova pri čemu se izračunom dolazi do jedinstvenog broja bodova za svaki sud pojedinačno. Ovako definisani indikatori pružaju mogućnost uvida u rezultate svakog pojedinačnog suda, mogućnost poređenja između sudova istog ili različitog nivoa, mogućnost poređenja samo odabrane grupe sudova i sl.

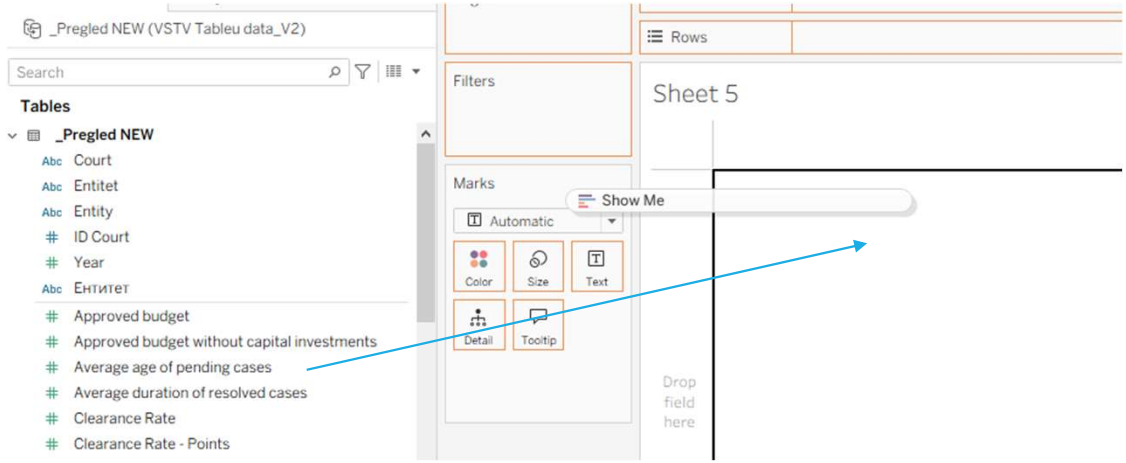
Make quick info sheets

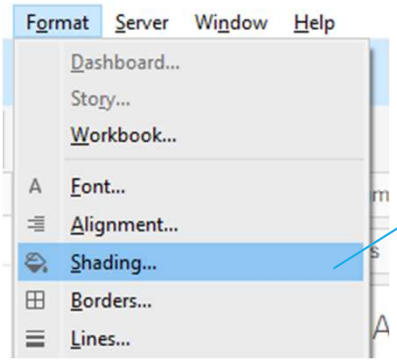
Create new sheet

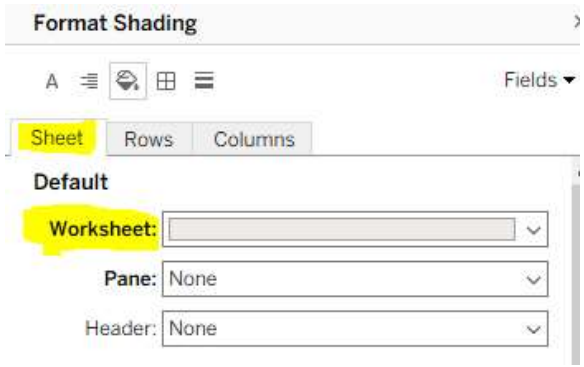
Rename Sheet as “TopInfoAvgAge”

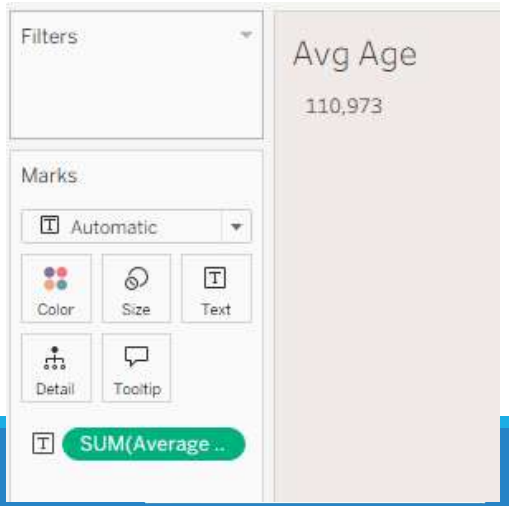
Drag Average age of pending cases on

Change shading to color pink









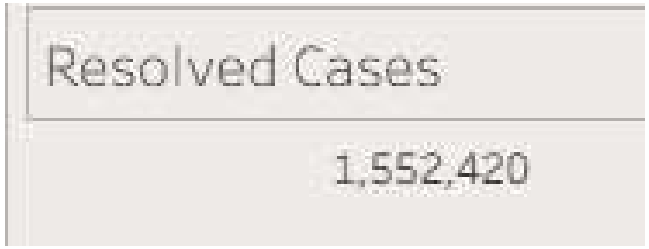
HEEA

Create new sheet

Rename Sheet as “Top_ResolvedCases”

Drag “Resolved cases” on Text

Change shading to color pink



Create new sheet

Rename Sheet as “Top_IncomingCases”

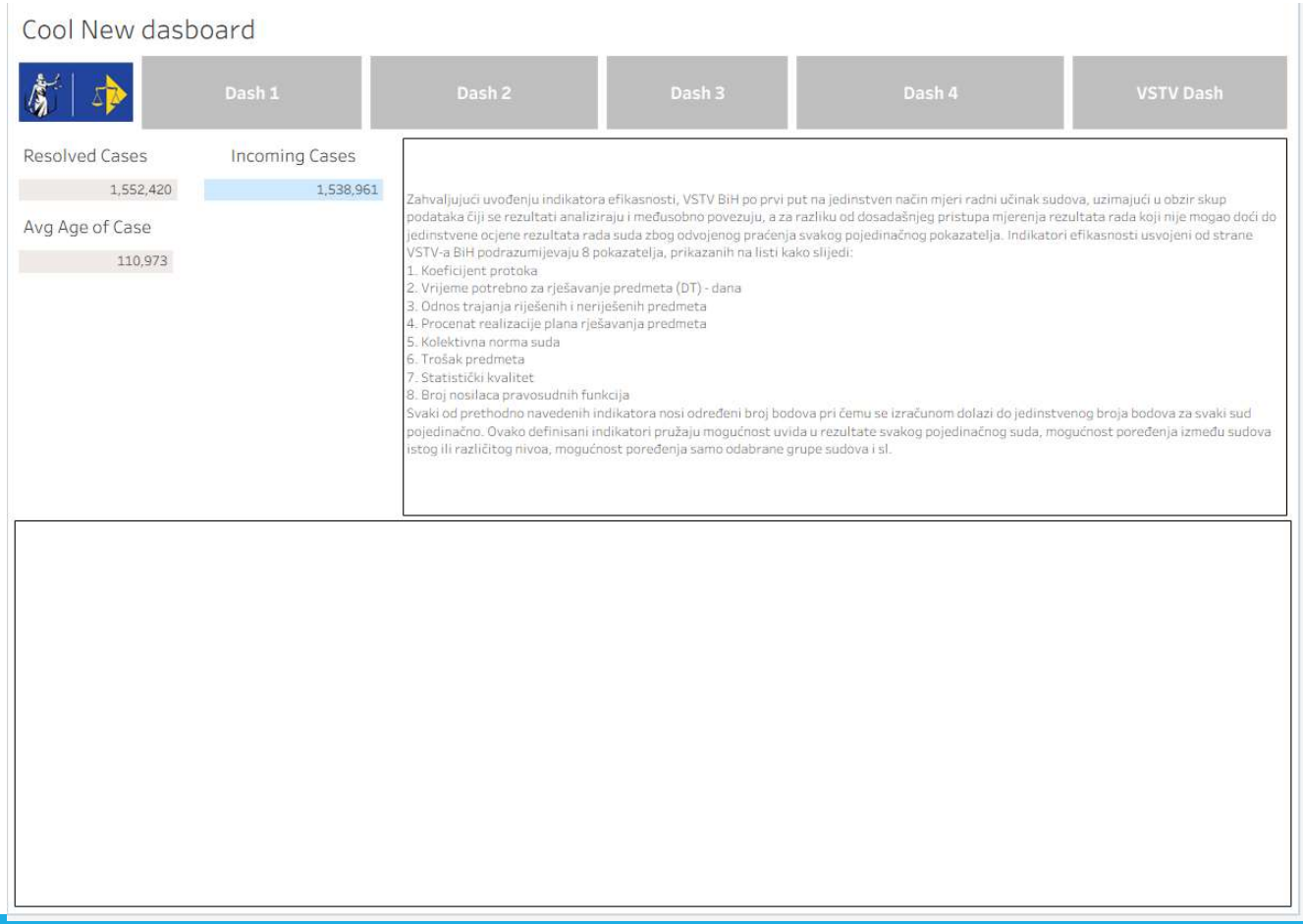
Drag “Incoming cases” on Text

Change shading to color pink



HEEA

Add new sheets to Dashboard



tableau

HEEA

Add Worksheet to Dashboard

Drag Worksheet to vertical container

Drag second worksheet to left corner next to first vis

Drag third worksheet bellow two vis

HEEA

Cool New dasboard

Dash 1 | Dash 2 | Dash 3 | Dash 4 | VSTV Dash

Resolved Cases: 28,974

Incoming Cases: 27,158

Avg Age of Case: 1,786

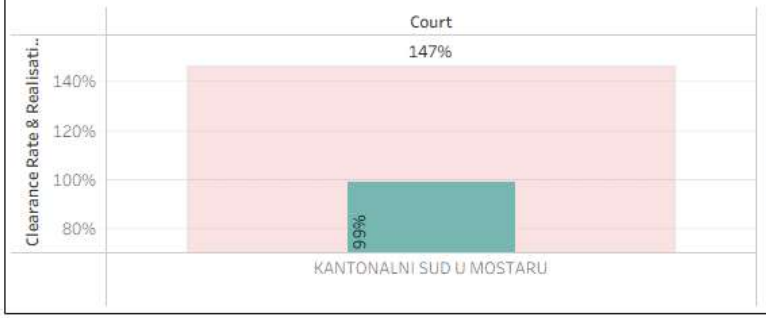
Zahvaljujući uvođenju indikatora efikasnosti, VSTV BiH po prvi put na jedinstven način mjeri radni učinak sudova, uzimajući u obzir skup podataka čiji se rezultati analiziraju i međusobno povezuju, a za razliku od dosadašnjeg pristupa mjerenja rezultata rada koji nije mogao doći do jedinstvene ocjene rezultata rada suda zbog odvojenog praćenja svakog pojedinačnog pokazatelja. Indikatori efikasnosti usvojeni od strane VSTV-a BiH podrazumijevaju 8 pokazatelja, prikazanih na listi kako slijedi:

1. Koeficijent protoka
2. Vrijeme potrebno za rješavanje predmeta (DT) - dana
3. Odnos trajanja riješenih i neriješenih predmeta
4. Procenat realizacije plana rješavanja predmeta
5. Kolektivna norma suda
6. Trošak predmeta
7. Statistički kvalitet
8. Broj nosilaca pravosudnih funkcija

Svaki od prethodno navedenih indikatora nosi određeni broj bodova pri čemu se izračunom dolazi do jedinstvenog broja bodova za svaki sud pojedinačno. Ovako definisani indikatori pružaju mogućnost uvida u rezultate svakog pojedinačnog suda, mogućnost poređenja između sudova istog ili različitog nivoa, mogućnost poređenja samo odabrane grupe sudova i sl.

Court: KANTONALNI SUD U MOSTARU

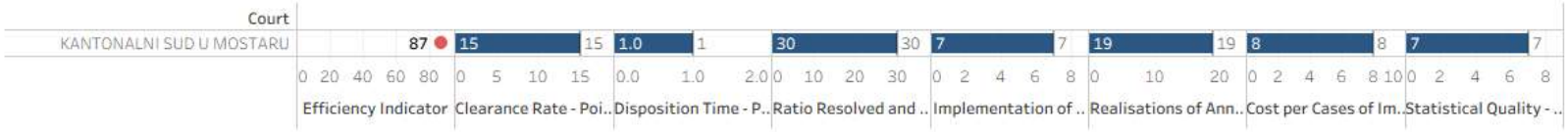
Clearance Rate vs Realisation of Annual Plan



Avg duration of resolved case Vs Avg. age of pending case



Koeficijent protoka (Bodovi)



tableau

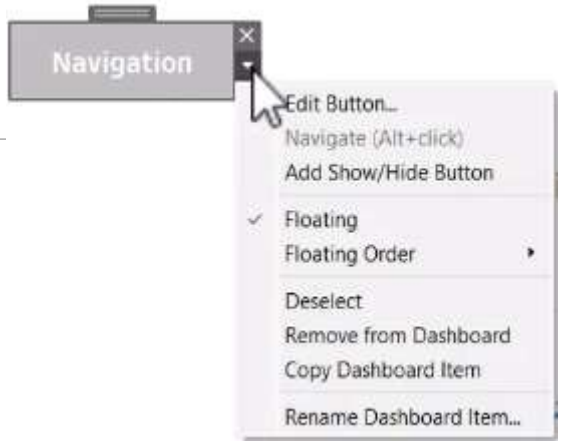
HEEA

More objects

Text (switch to floating) add text on top of your dashboard

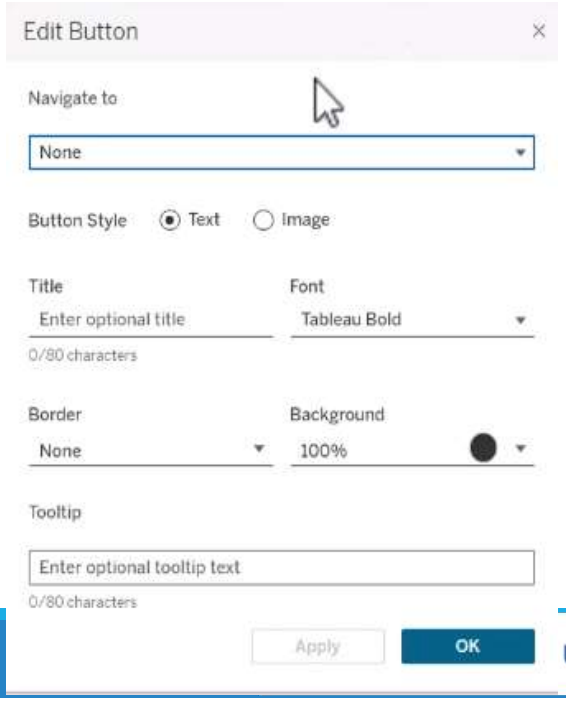
Image – add image to your dashboard

Navigation – create button to click on



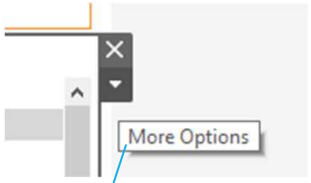
Web page

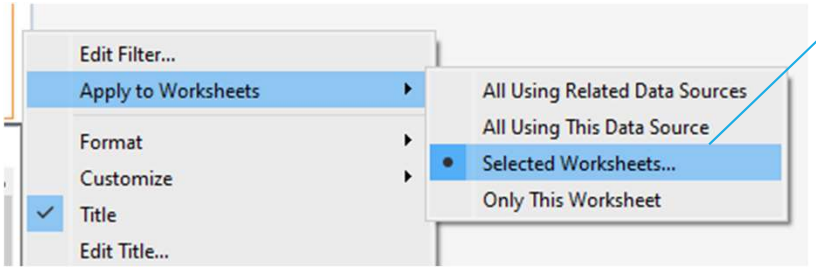


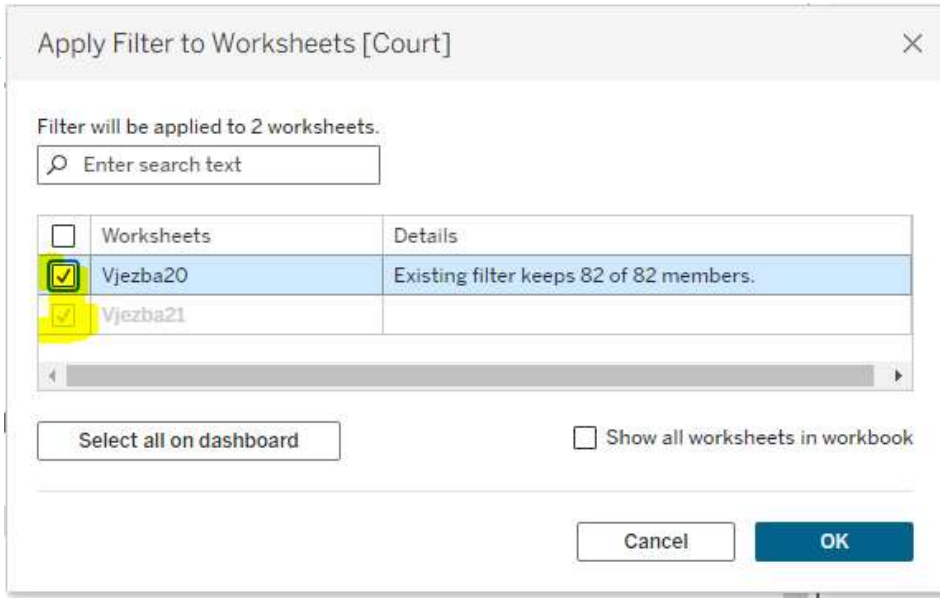


Add filters – make a float

Right click on any filter (more options)

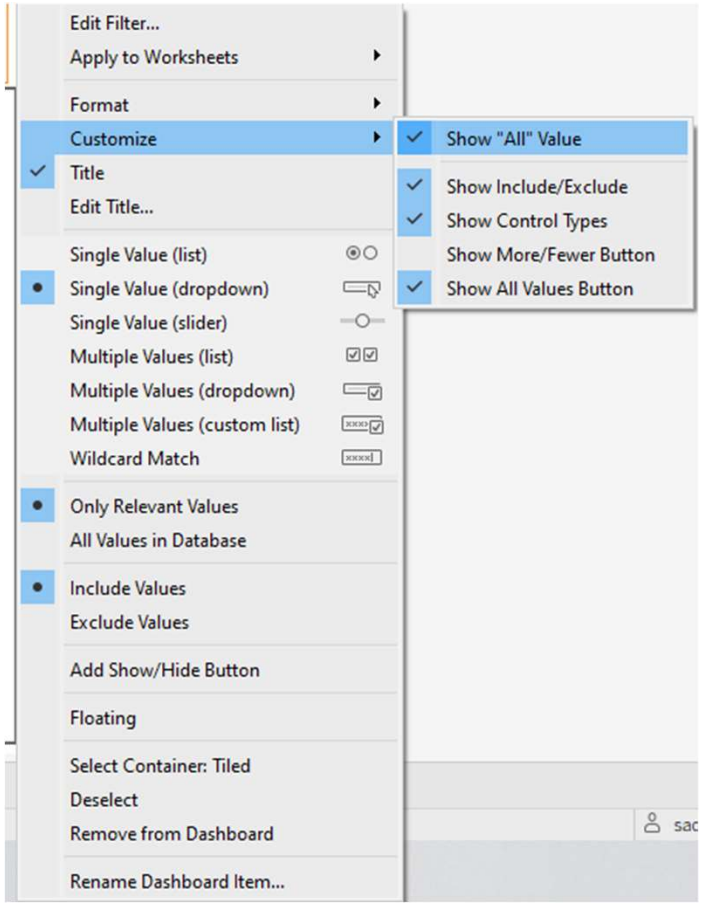






HEEA

Filter options



Title – show text above filter

Edit Title – Enter new text

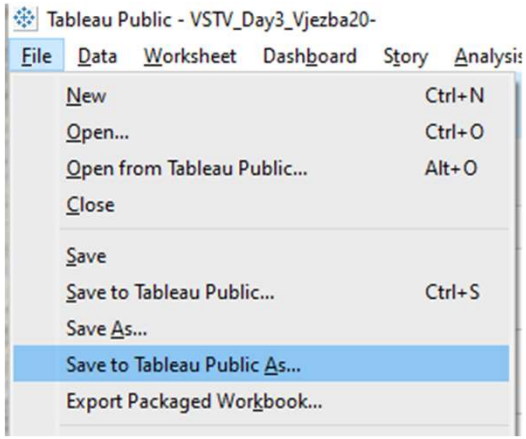
Customize – (show all)

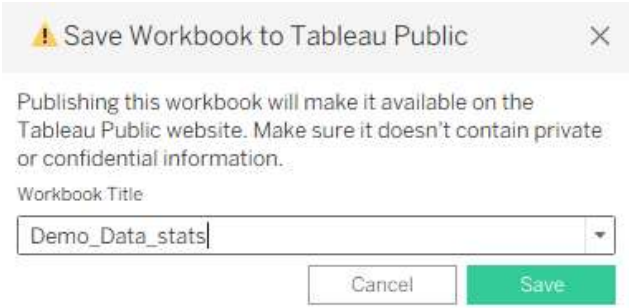
Single Value – mostly use

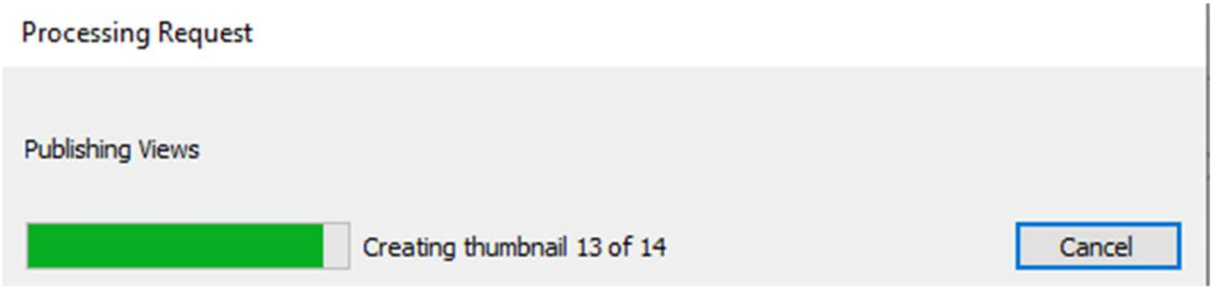
Only relevant values – show only relevant values

tableau

Publishing of workbook to Public

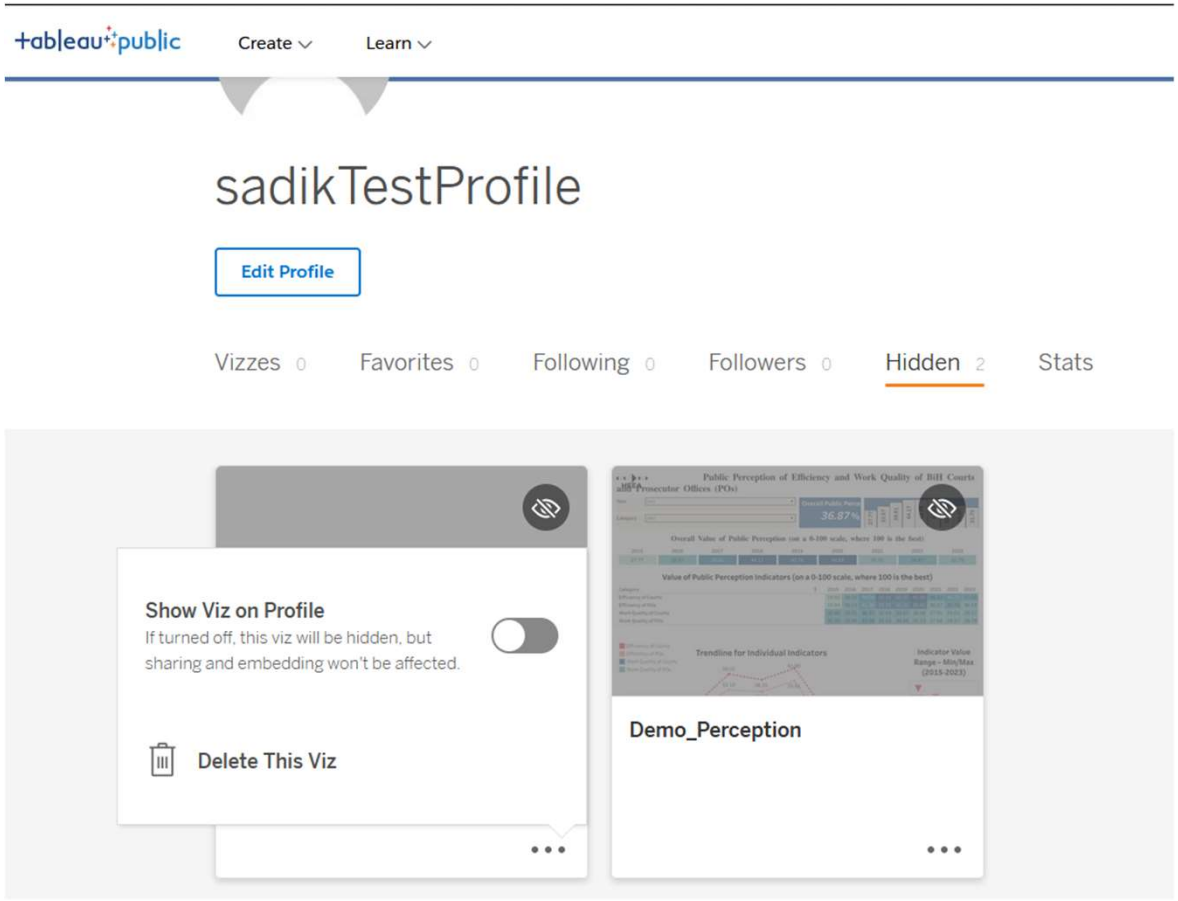






HEEA

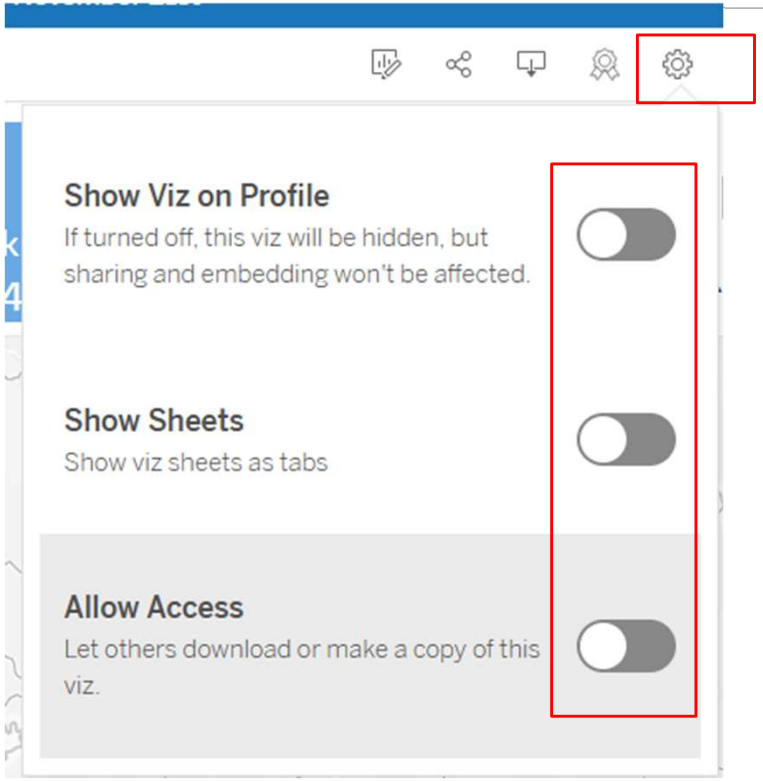
Publish – but hide for testing



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HEEA

Publish – but hide for testing



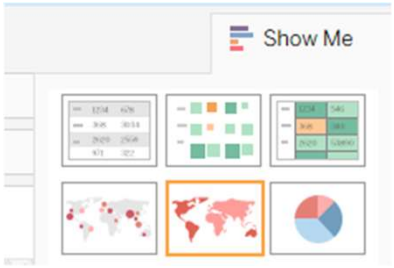
tableau

HEEA

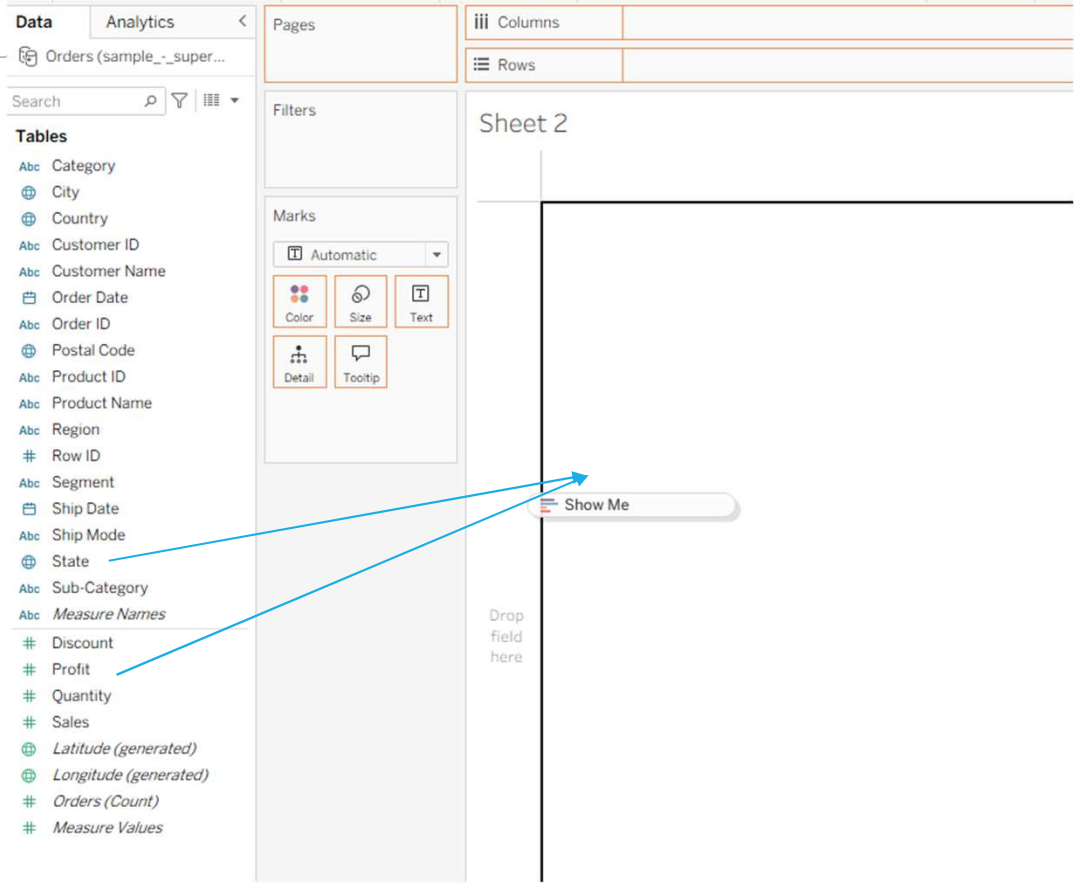
Mapping

1. Load Sample_Super_store_data
2. Select Profit and Sate (while holding CTRL)
3. Change map format to

Heat Map



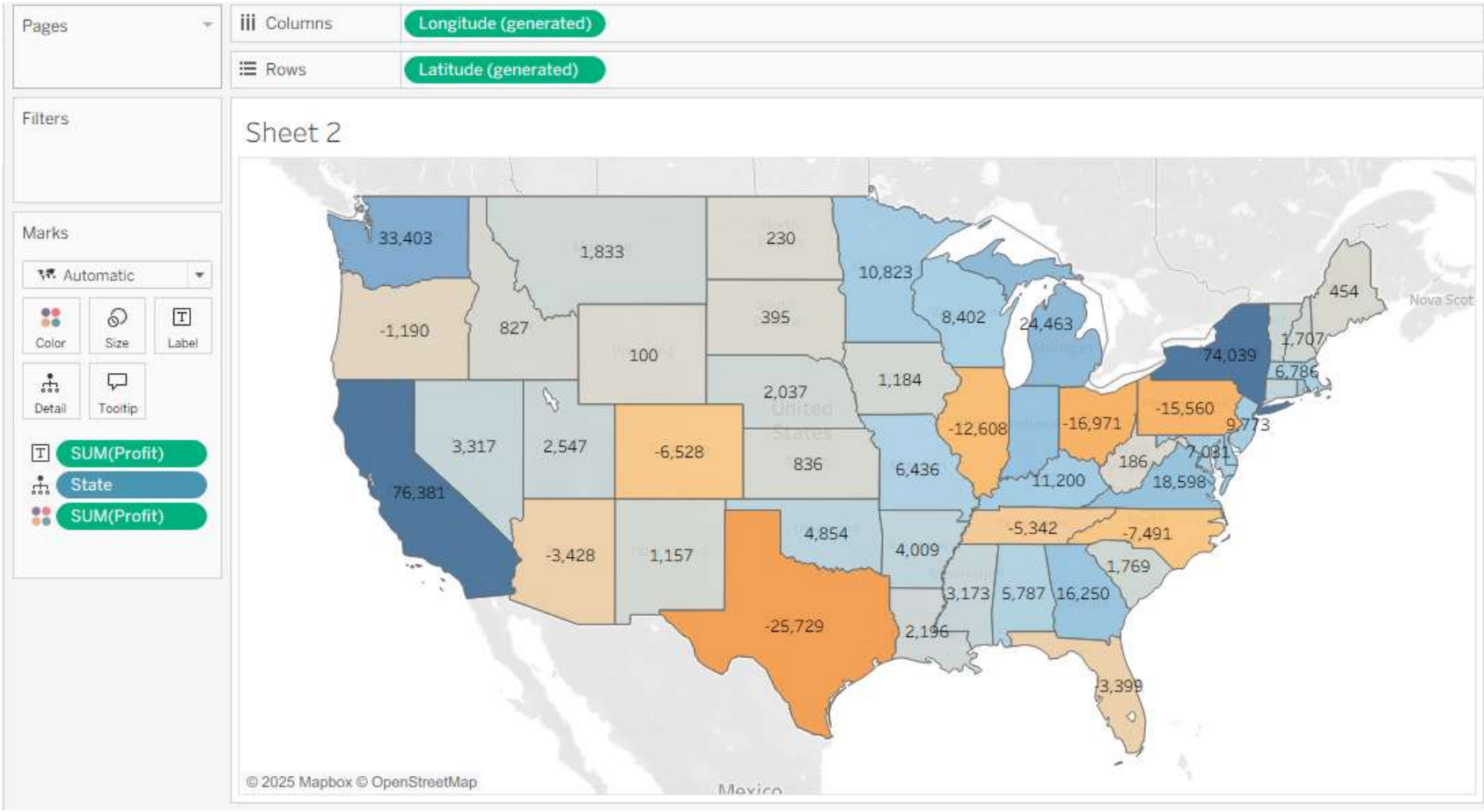
4. Pull Profit to Label



tableau

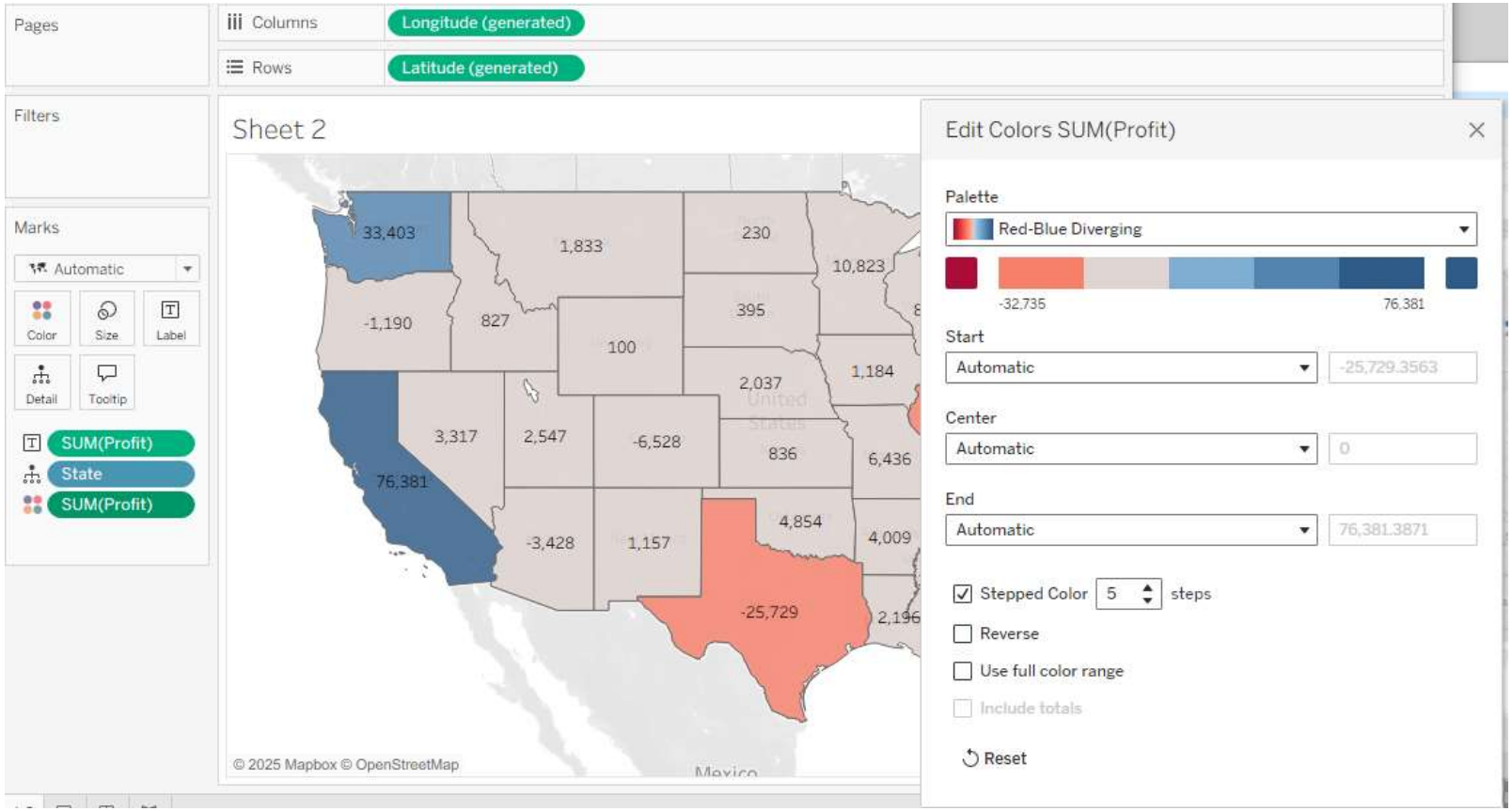
HEEA

Mapping



HEEA

Mapping - Color



tableau

HEEA

Tableau support Bosnia mapping

See data available for Bosnia

Bosnia and Herzegovina (BIH)

TABLEAU GEOGRAPHIC ROLE	TYPE	COUNT	NOTE
Airport		4	
City		81	
NUTS Europe		1	
State/Province	Entity, District	3	
Zip Code/Postcode		530	

United Kingdom (GBR)

TABLEAU GEOGRAPHIC ROLE	TYPE	COUNT	NOTE
Airport		118	
City		8584	
County	Unitary Authority, County	194	
NUTS Europe		233	
State/Province	Country	7	
Zip Code/Postcode		2839	

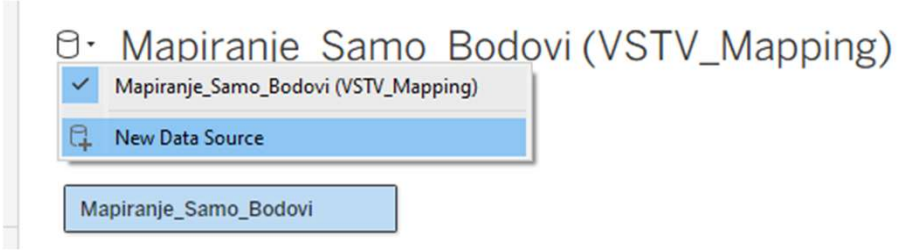
+ a b | e a u

Mapping of BiH

Add new Data Source

Add “VSTV_Mapping.xlsx”

Add Sheets “Mapiranje_samo_Bodovi”



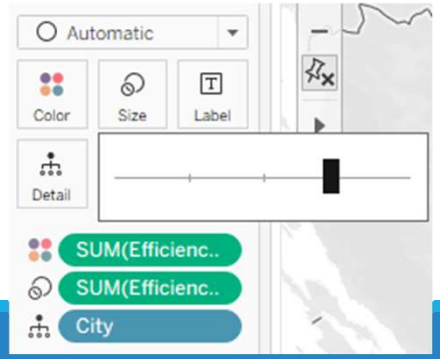
Create new Sheet1

Pull City to Marks (details)

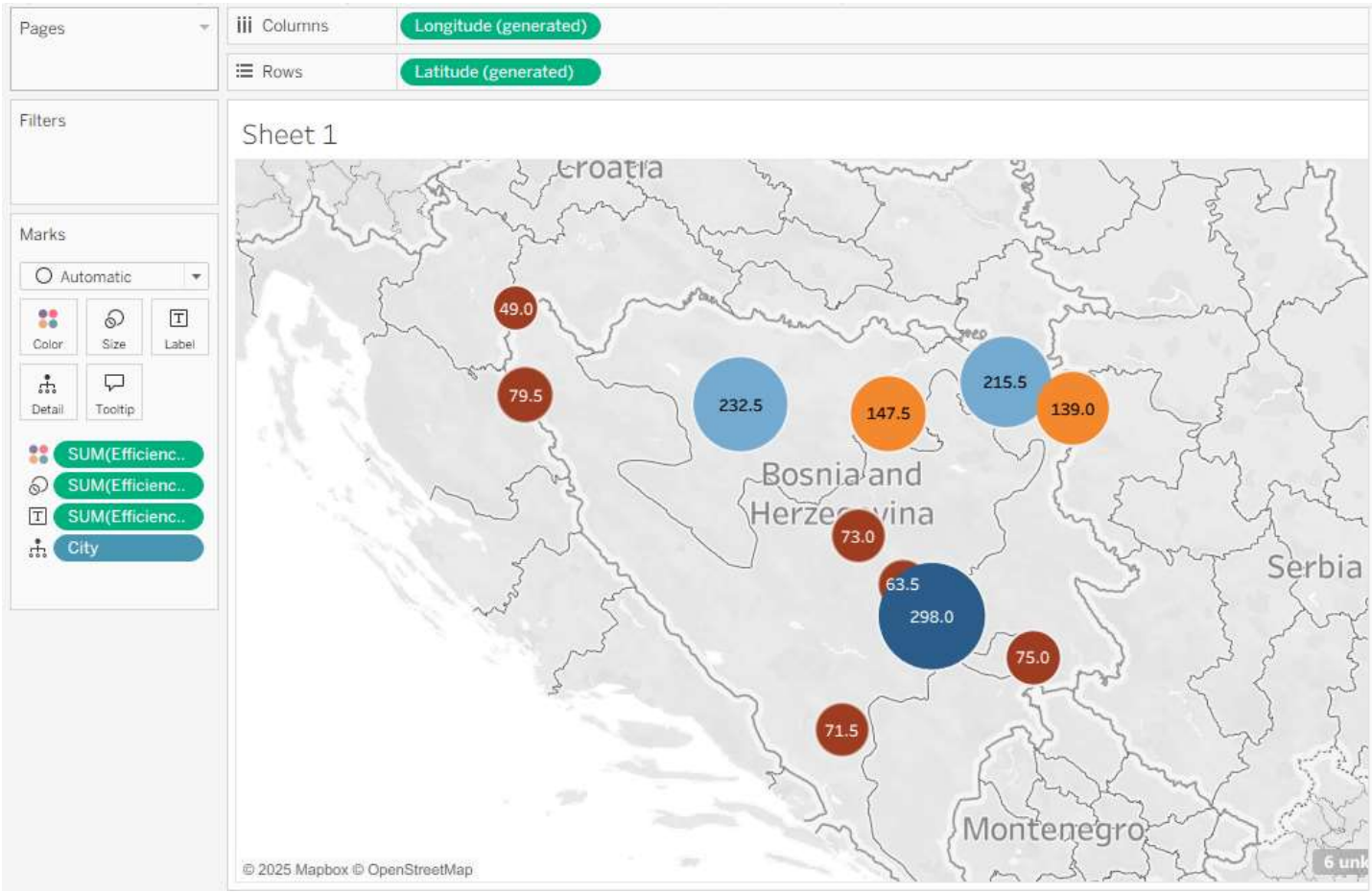


Pull Efficiency to Color and Size

Change size



HEEA



tableau

HEEA

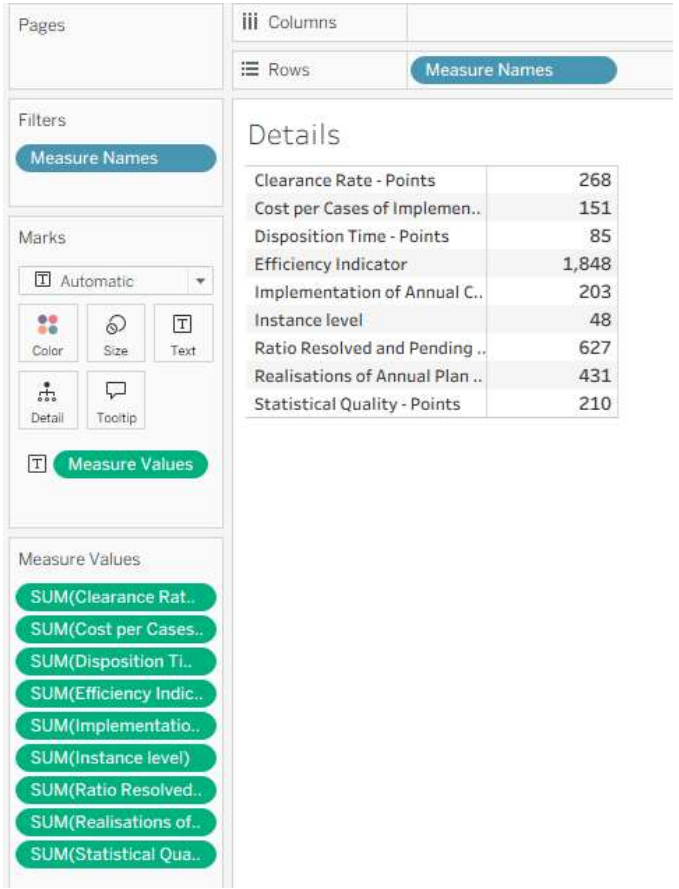
Map Details

Create new sheet “Map_Details

Pull

- Clearance rate points,
- Cos per Case of Implementation,
- Disposition Time,
- Efficiency Indicator,
- Implementation of Annual ,
- Ratio Resolve,
- Statistical Quality

to details

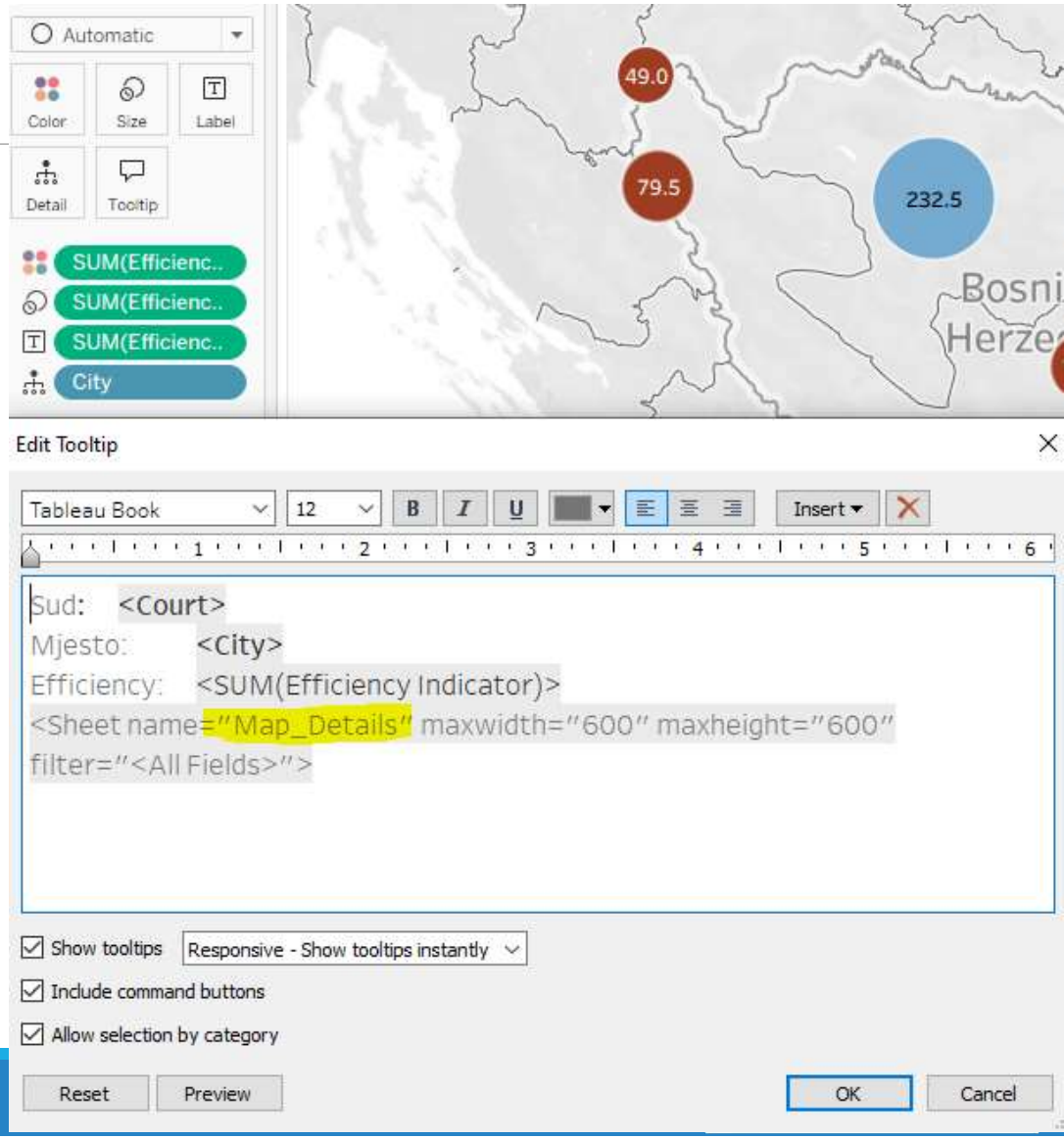


tableau

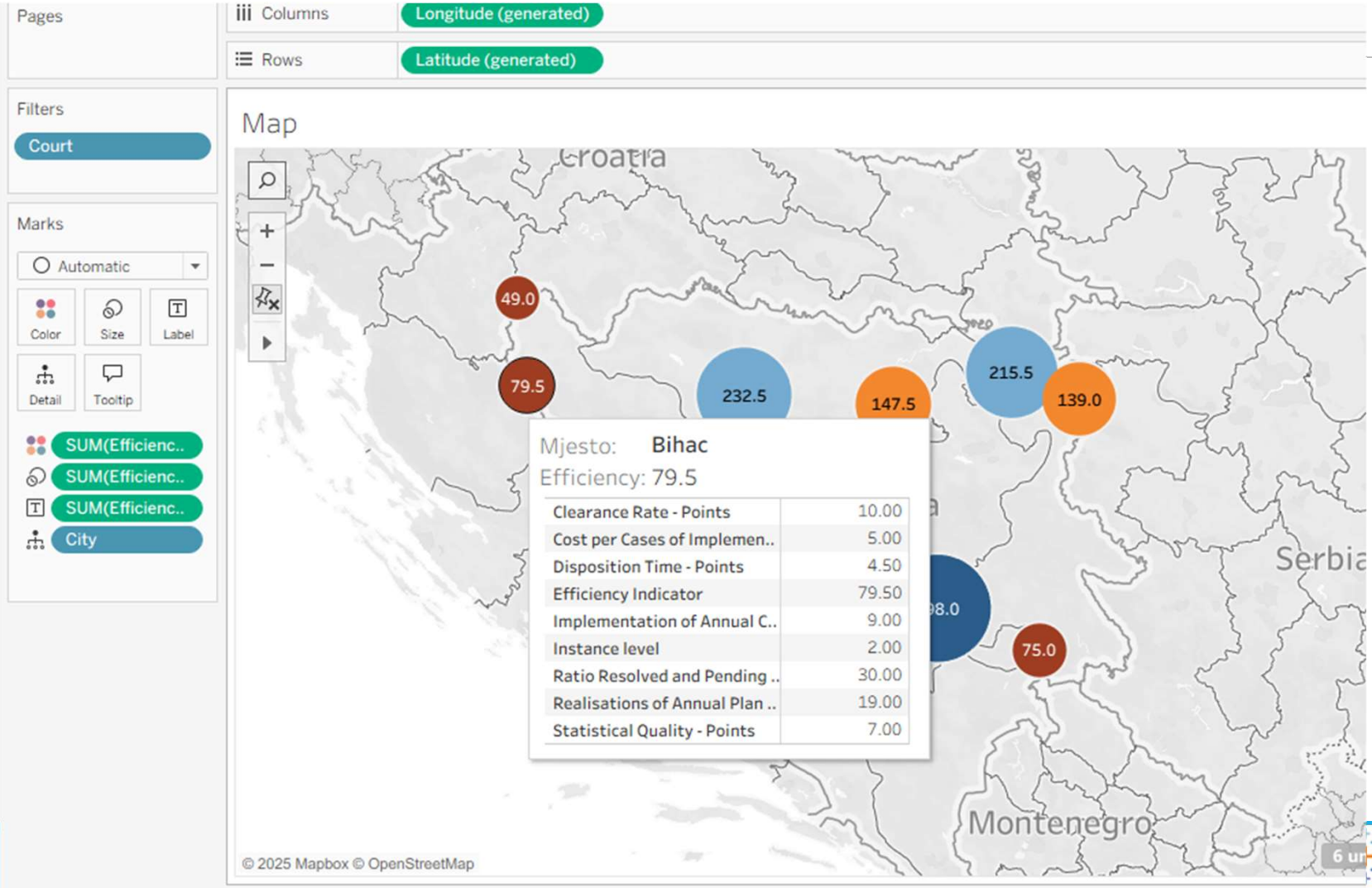
HEEA

Create pop-up details

Edit tooltip on main map, add link to detail worksheet.



Solution for mapping sample



HEEA

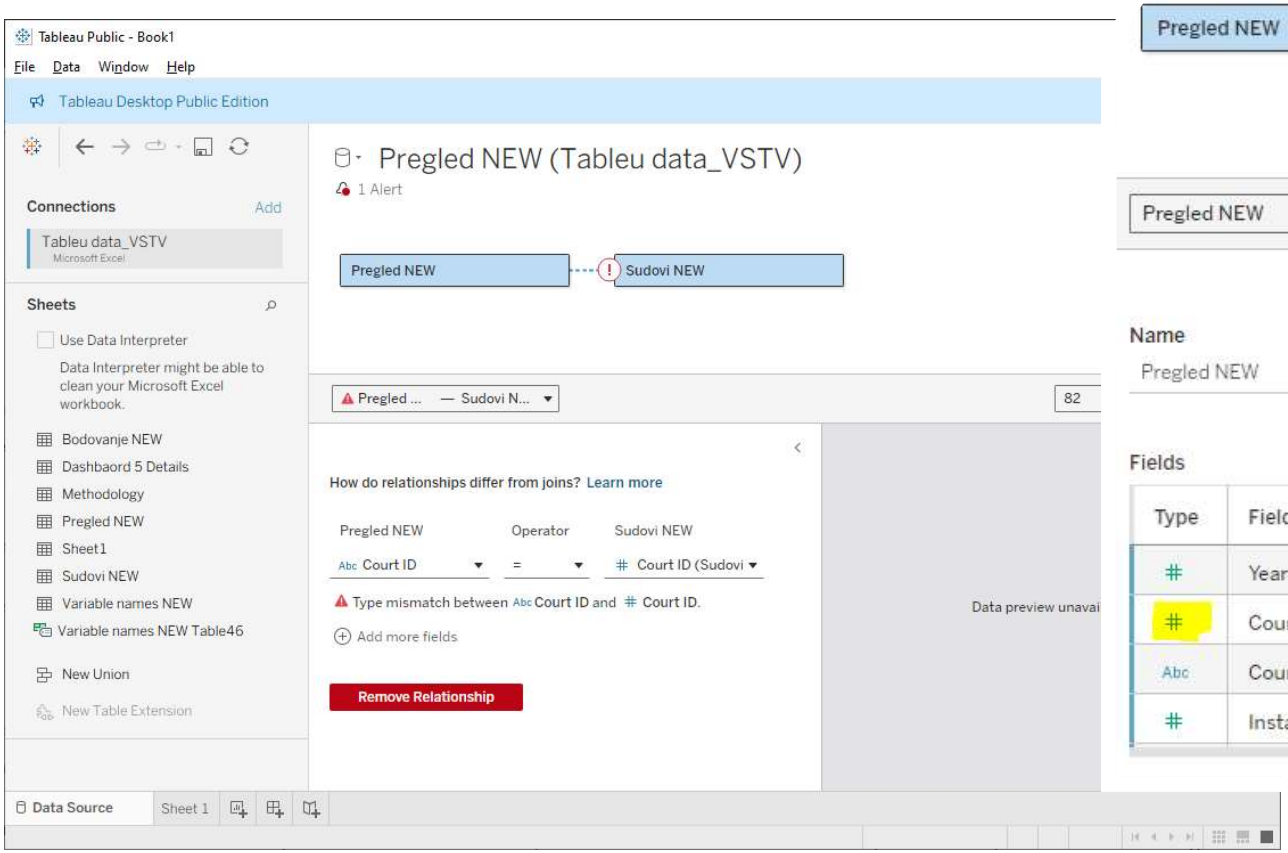
Data connections - issues

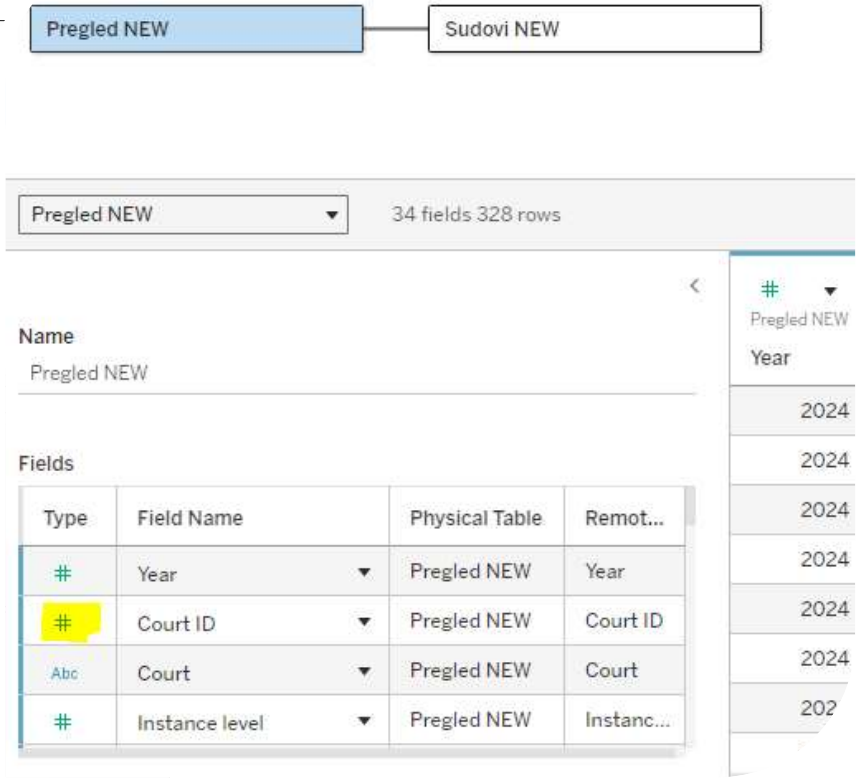


tableau

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Data connections





tableau