

Unlocking Key Metrics & Patterns using Grafana

20 Sept. 2024



Grafana Labs



Presenter



Syed Usman Ahmad
Sr. Developer Advocate



About me

What I do?

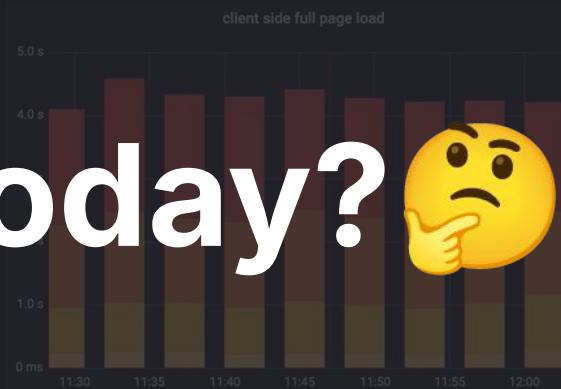
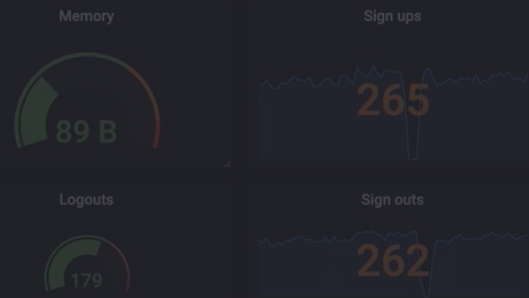
My previous roles?

What I do beside work?

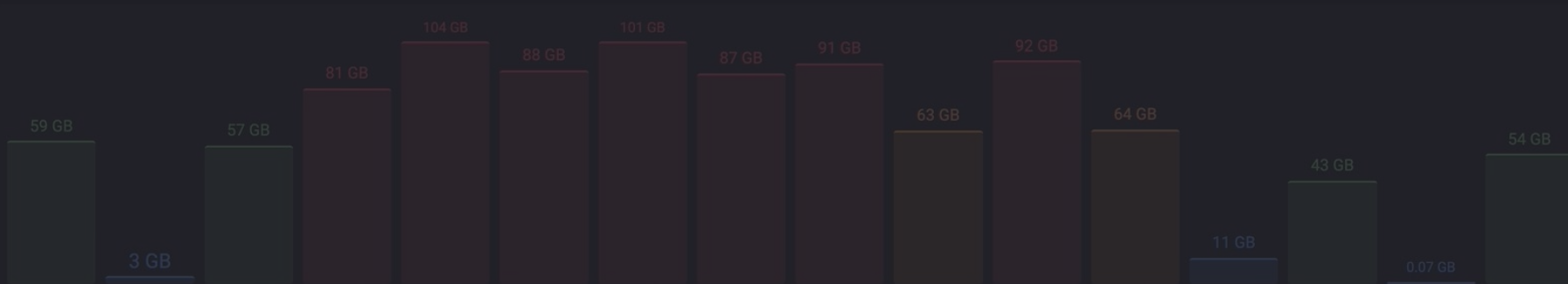


github.com/usmangt

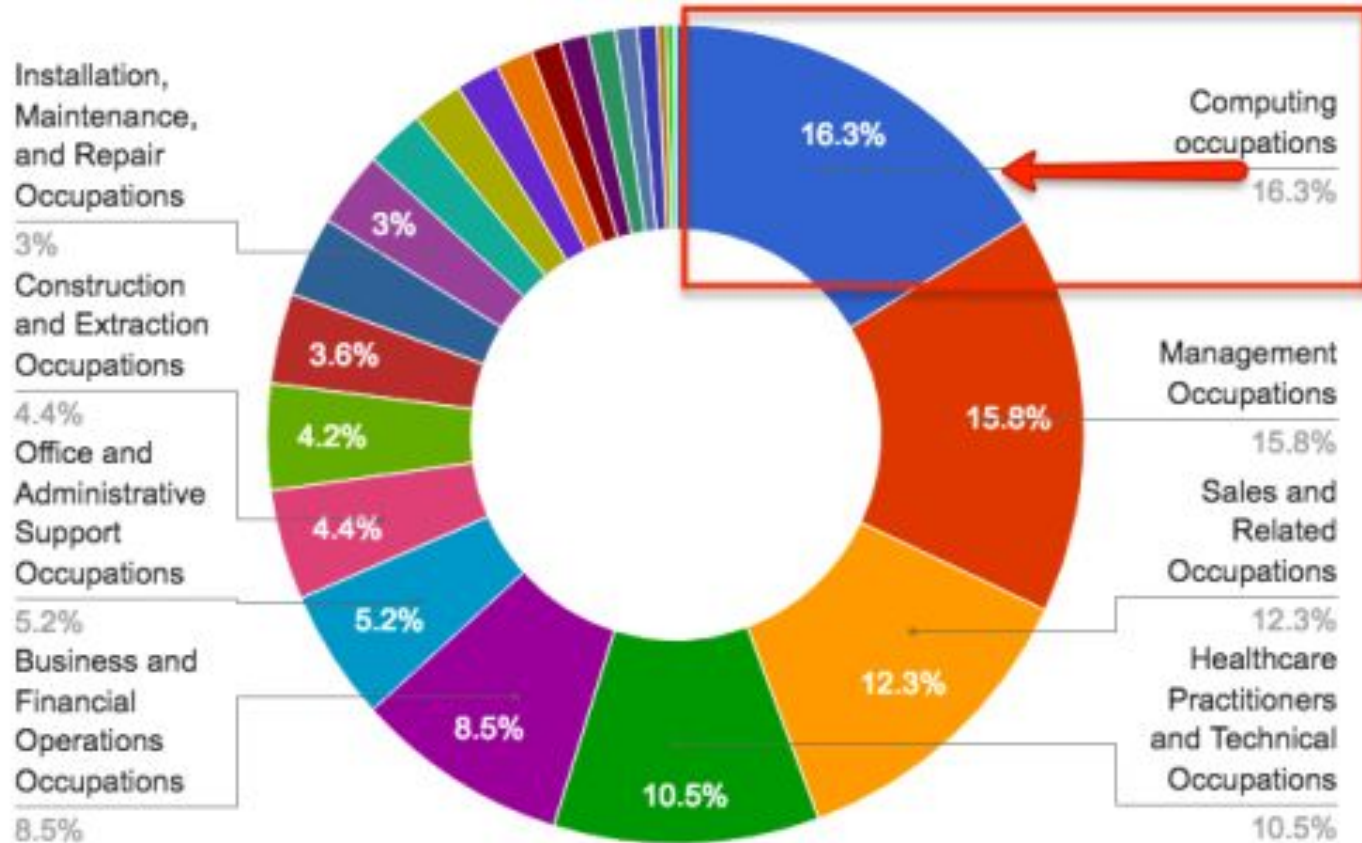




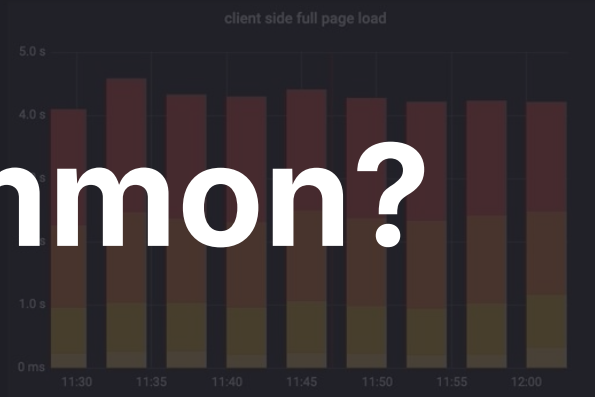
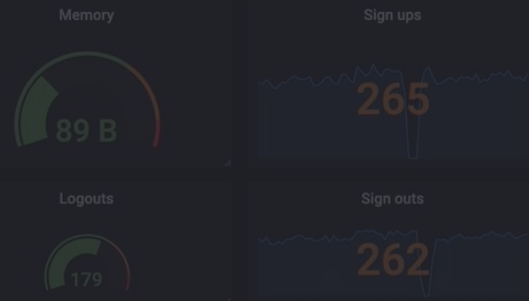
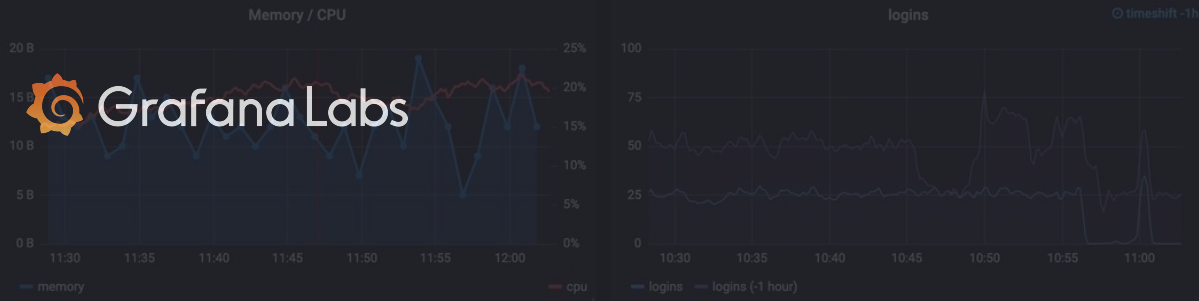
Why are we here today?



Market Reference



[illegible]



One thing in common?



The background is a dark, teal-colored abstract image. It features a dense network of glowing green lines and small, bright green squares, creating a sense of depth and digital connectivity. The lines and squares are scattered across the frame, with some appearing more prominent than others, giving it a complex, data-like appearance.

**IT'S ALL ABOUT
DATA**



Google Sheets





2024 survey how many users learn to use excel sheets



All

Videos

Images

News

Books

⋮ More

Tools

People also ask ⋮

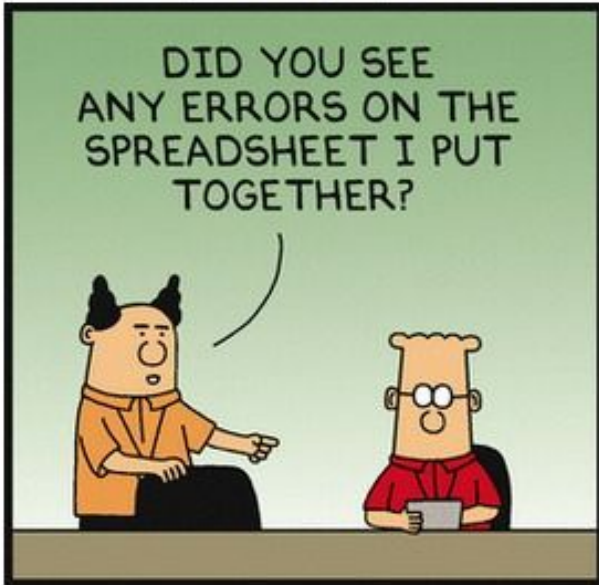
What percentage of people have received training on spreadsheets?



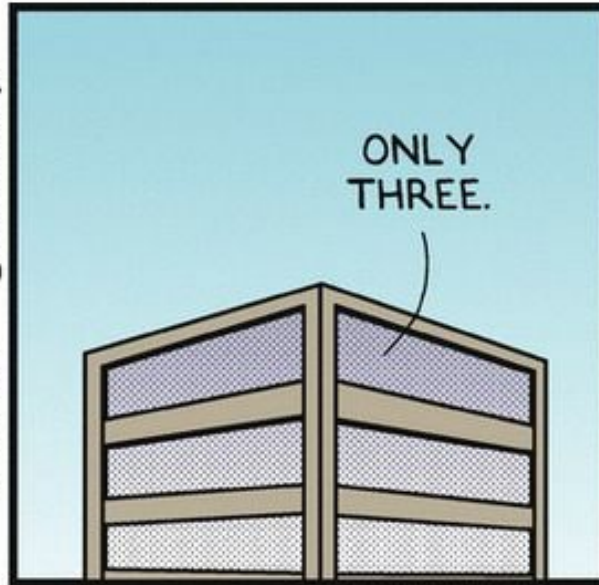
Only **48%** of people have ever received any formal Excel training. People need help from colleagues twice per week with an Excel issue. The average Excel problem takes 8 1/2 minutes to fix on average. 11% of people think they are Excel beginners. 6 Mar 2022

A real example

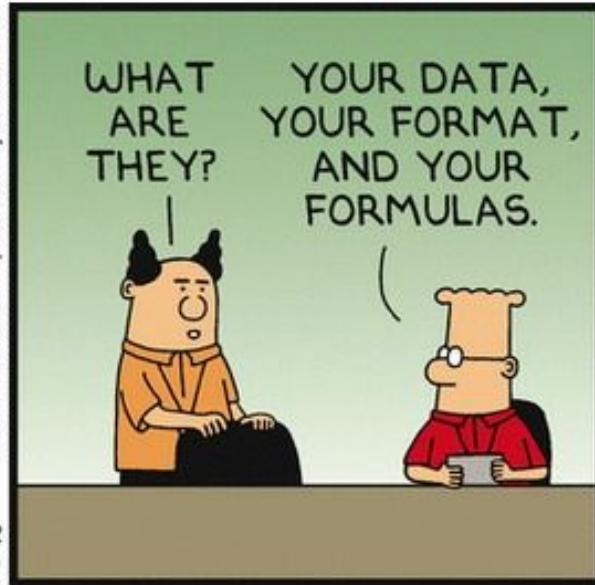
Wednesday January 06, 2016 *Three Problems With Spreadsheet*

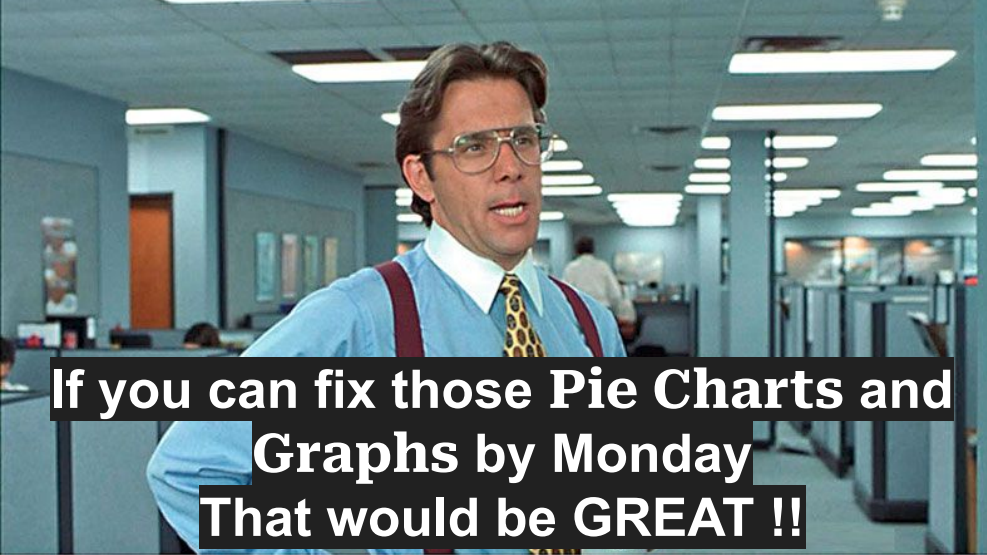


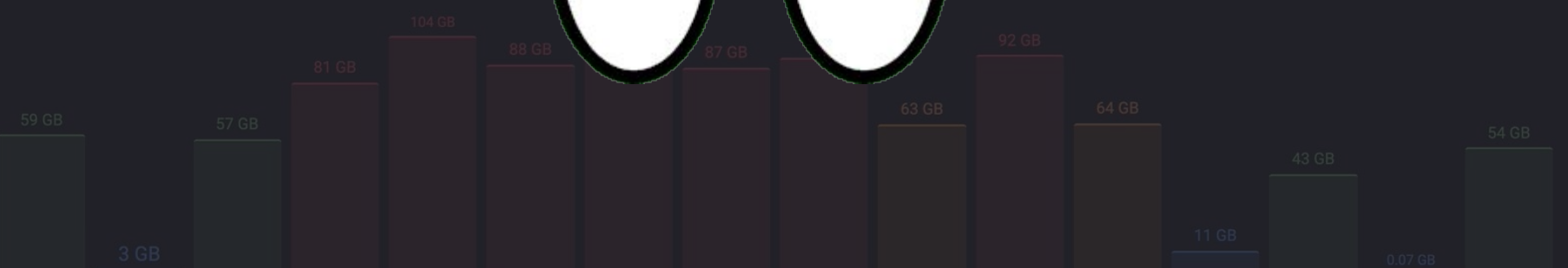
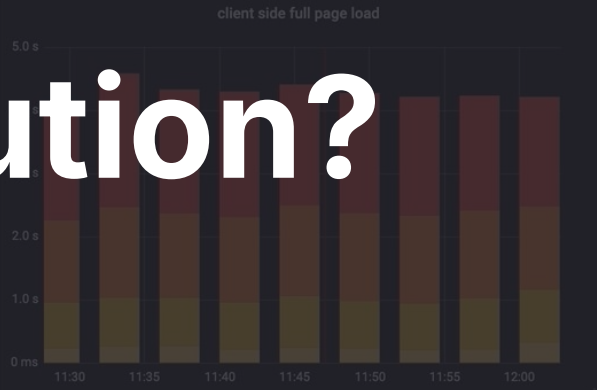
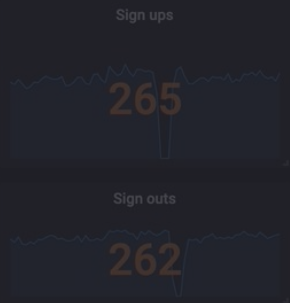
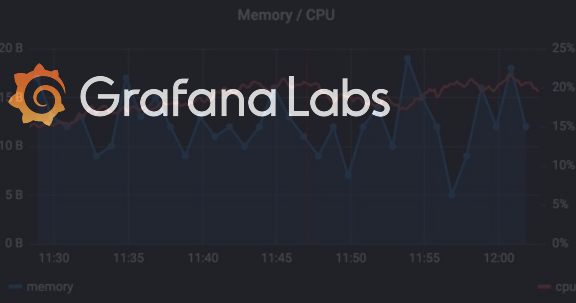
Dilbert.com @ScottAdamsSays



1-6-16 © 2016 Scott Adams, Inc. /Dist. by Universal Uclick







What is the Solution?



WHAT IF I TOLD YOU



**AND CREATE AMAZING VISUALIZATION AND
FILTER DATA TO YOUR NEEDS EASILY!!**

Using Grafana

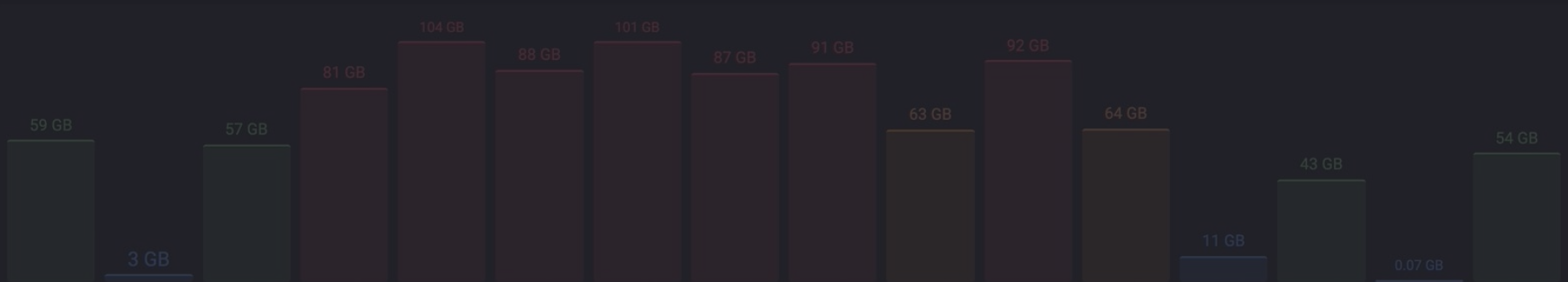
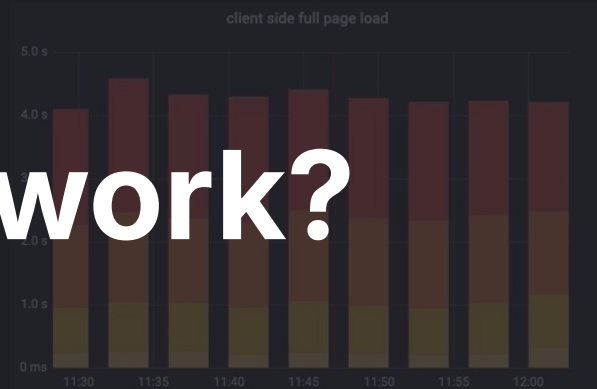
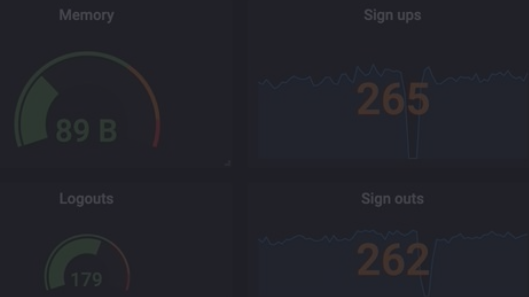
- 1 Available in many flavour
- 2 Various Visualisation formats
- 3 Connect to a Data source



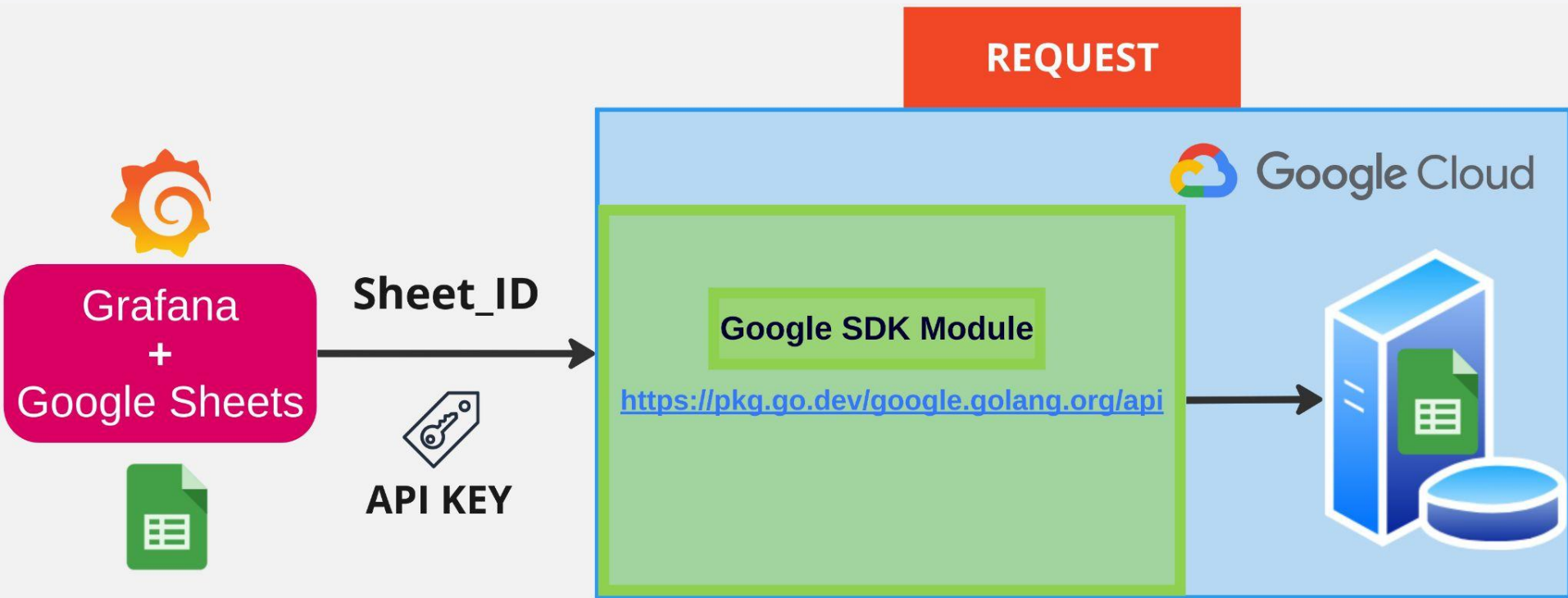
Google Sheets Data source Plugin

- 1 Available in all Grafana versions
- 2 Support various Visualisation formats
- 3 Easy to Setup & Integrate

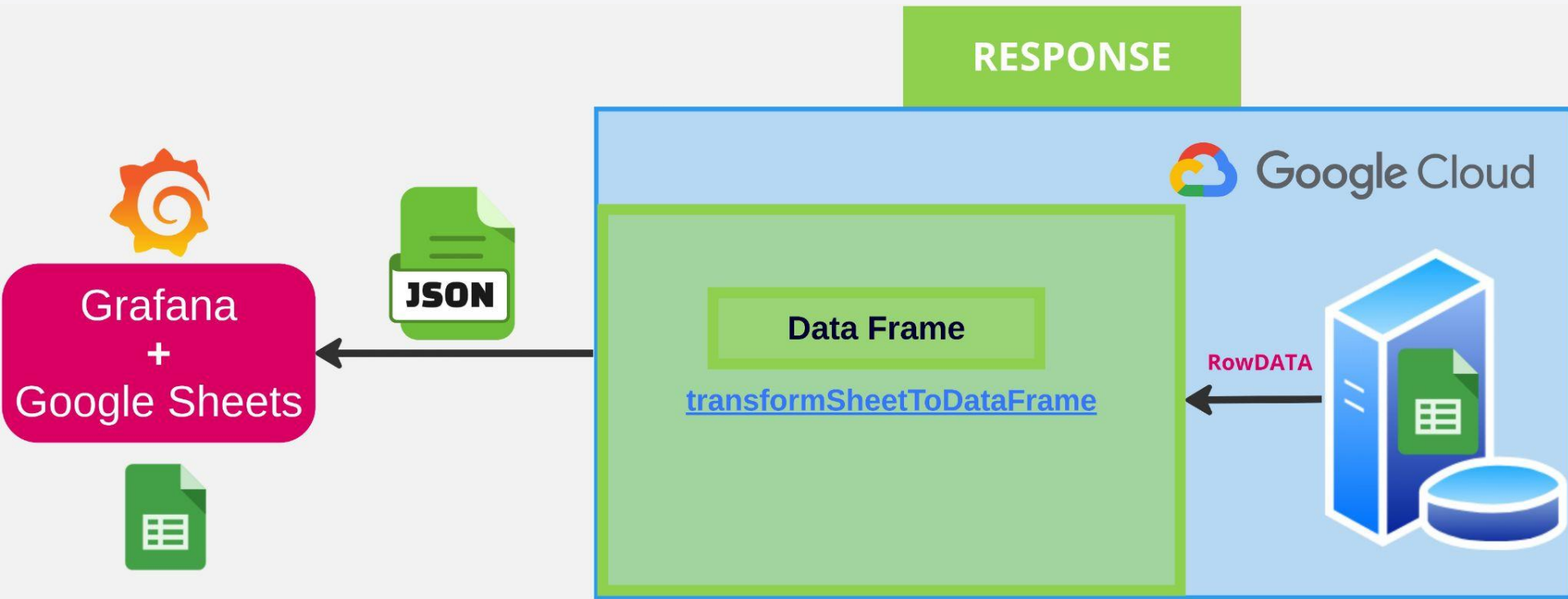




Sending Request



Receiving Response





Memory / CPU



logins

timeshift -1h



Memory



Sign ups



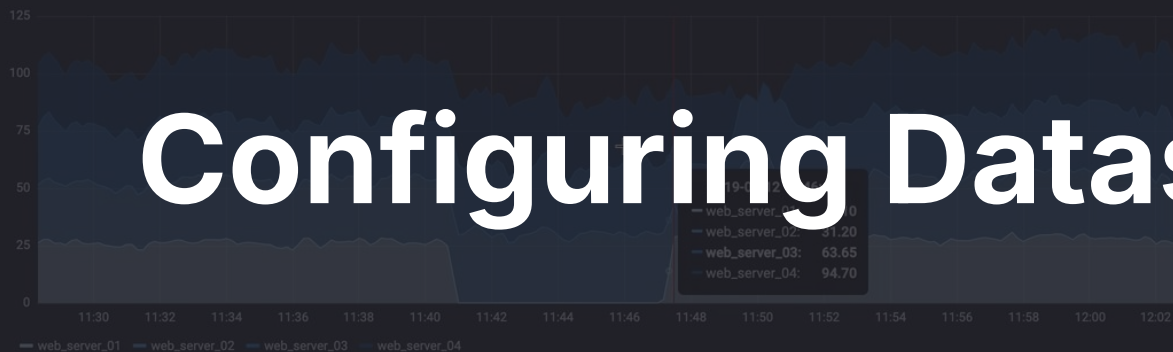
Logouts



Sign outs



server requests



client side full page load



Configuring Datasource

2 Step process

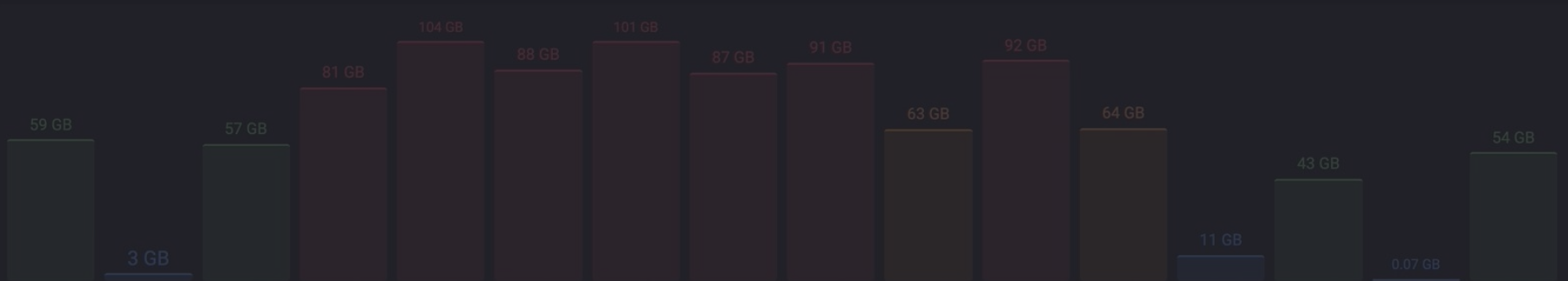
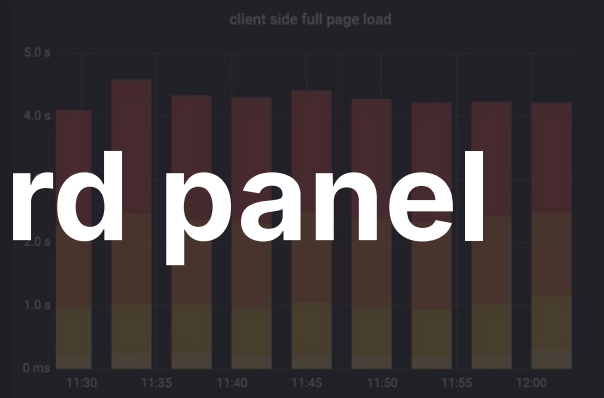
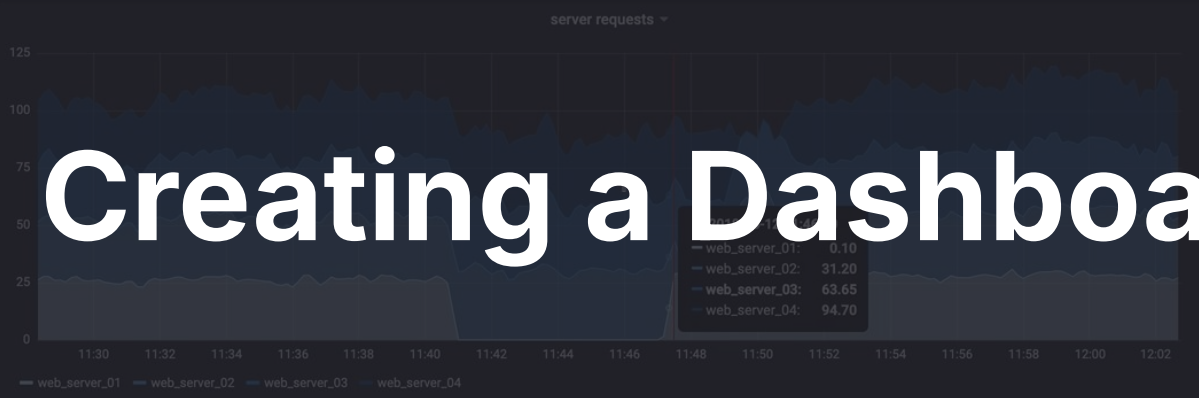
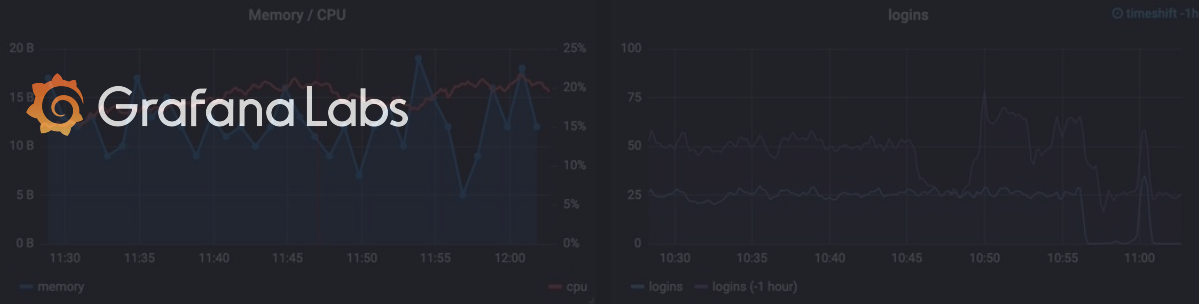
Install  using the
 plugin catalog

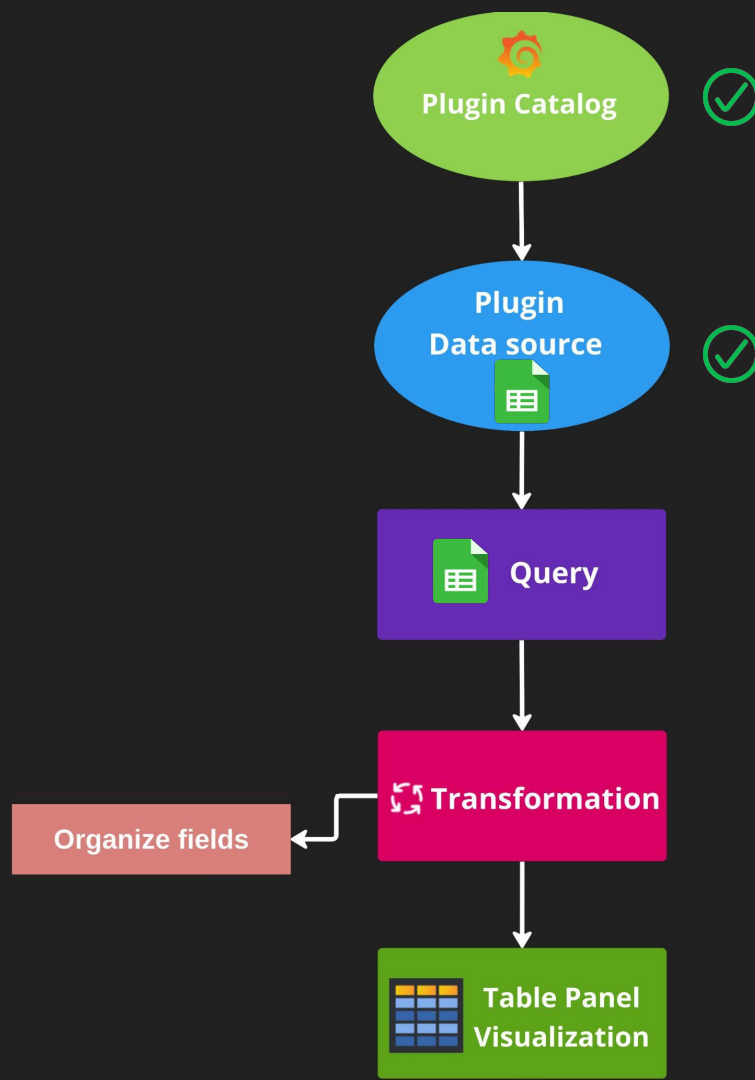


Configure  API Key



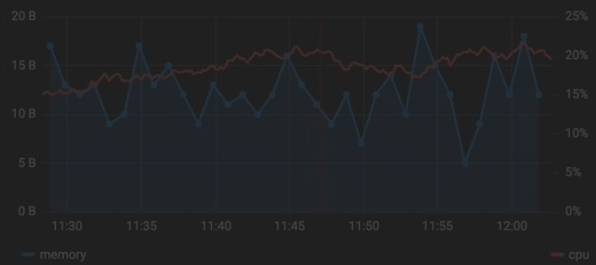
Creating a Dashboard panel







Memory / CPU



logins

timeshift -1h



Memory



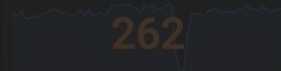
Sign ups



Logouts



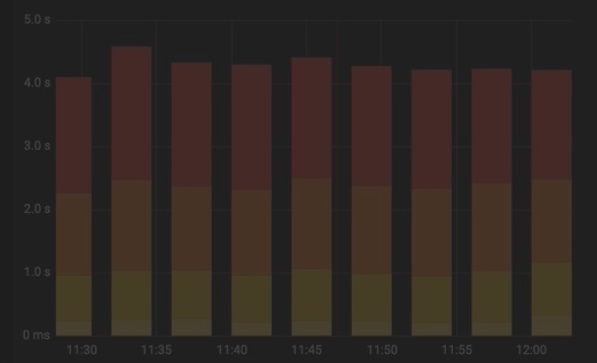
Sign outs



server requests

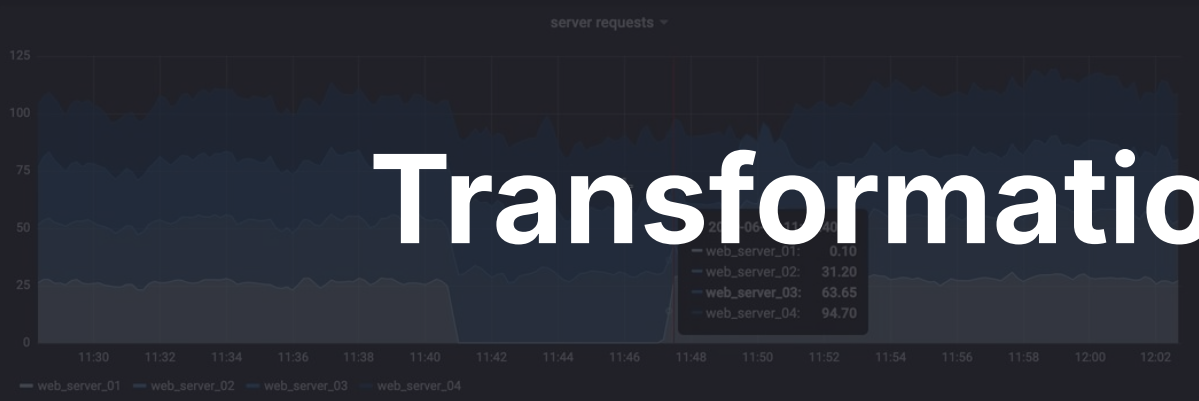


client side full page load

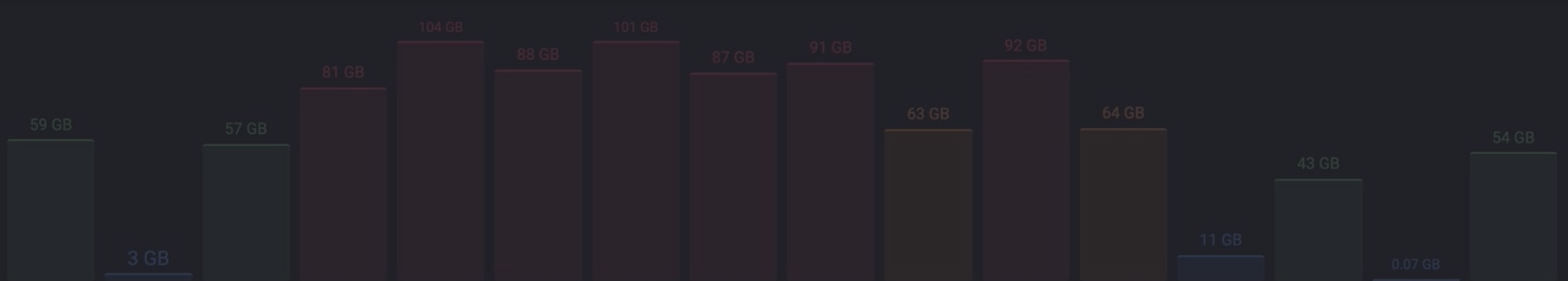


Demo





Transformations



Grafana Transformation

- 1 A powerful way to manipulate data
- 2 Happens before the visualization



Transformation

Convert field type

Extract fields

Group by

Sort by

Filter data

Organize

Format by

Rename by Regex

Reduce

Transformation - Organize fields

Home > Dashboards > Demo: Google Sheets > 3- Advanced Example 1 > Edit panel

Discard

Save

Apply

Table view

Fill

Actual

Last 6 hours



Filtered Data using Transformations

id	title	reply_count	views	last_posted_at	category_id	status
101736	How to reset lost admin passw	5	12940	2023-08-30 11:47:49 UTC	22	SOLVED
101086	Convert epoch metric to dateti	4	9721	2023-08-13 22:50:34 UTC	15	SOLVED
101551	CSP Issue attempting to acces	6	9501	2024-02-17 05:44:04 UTC	79	UNSOLVED
100000	5	5	5000	2023-10-27 10:57:30 UTC	22	UNSOLVED

Query 1

Transform data 1

1

3

1 - Organize fields by name

🔍 🗑️ ⌵ ⌵ ⌵

id	Category ID
title	Description
reply_count	Total replies
views	Total views
last_posted_at	Last Post Update
category_id	Rename category_id
status	Current Status

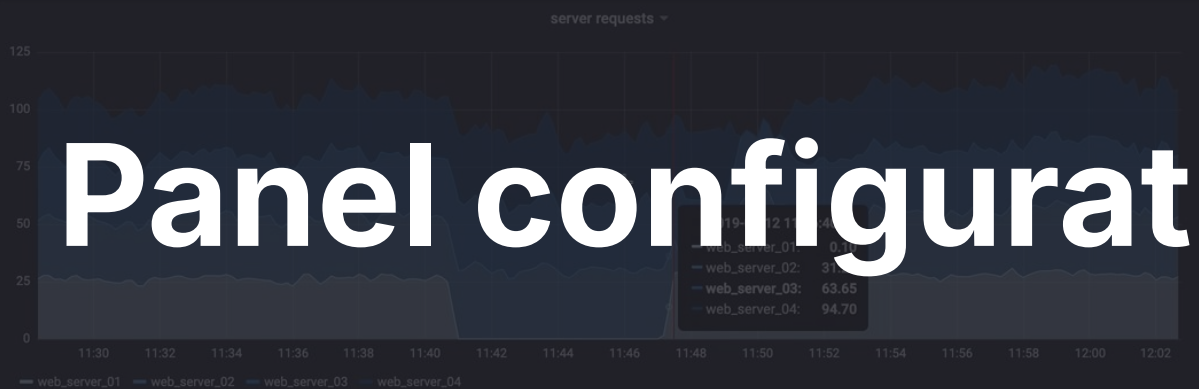
Rename the field

Hide unwanted field

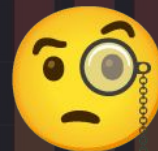
+ Add another transformation

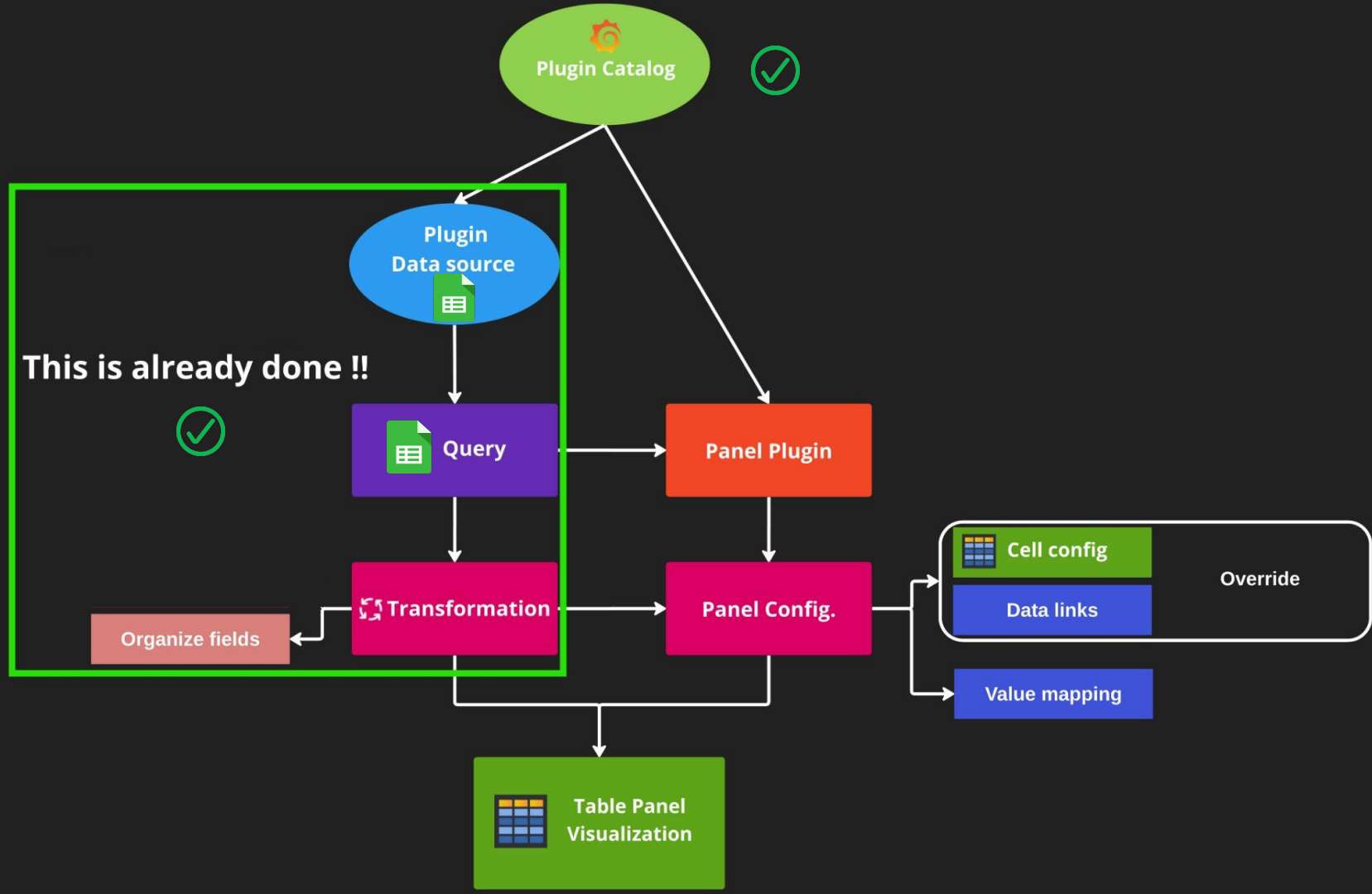
Delete all transformations

2



Panel configurations





Grafana Override Function

1

Allow you to customize visualization settings for specific fields or series

2

Lets you define multiple options for how that field is displayed

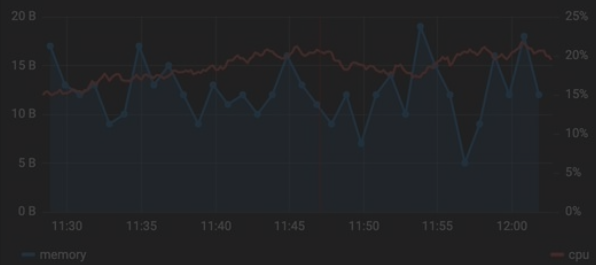


1 Using Override - Cell type

101736	How to reset lost admin pass	5	12940	2023-08-30 11:47:49 UTC	22	SOLVED
101086	Convert epoch metric to date	4	9721	2023-08-13 22:50:34 UTC	15	SOLVED
101551	CSP Issue attempting to acce	6	9501	2024-02-17 05:44:04 UTC	79	UNSOLVED
106291	Failed to upgrade legacy que	2	9362	2023-10-25 16:57:32 UTC	33	UNSOLVED
100264	Make your own custom 'Date	4	7933	2023-08-15 17:21:41 UTC	61	SOLVED
105976	Change dashboard date form	3	5352	2023-10-19 18:53:19 UTC	20	SOLVED
103216	Public key issue again with a	0	3865	2023-09-11 16:10:47 UTC	18	UNSOLVED



Memory / CPU



logins

timeshift -1h



Memory



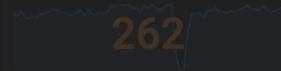
Sign ups



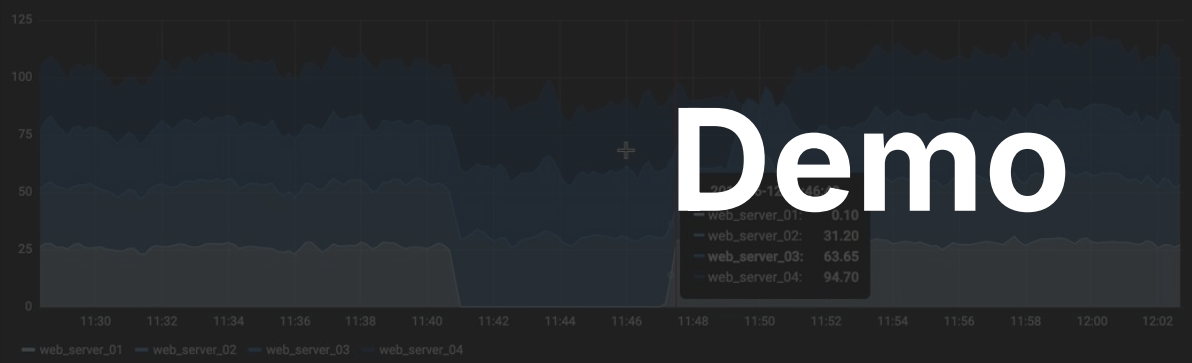
Logouts



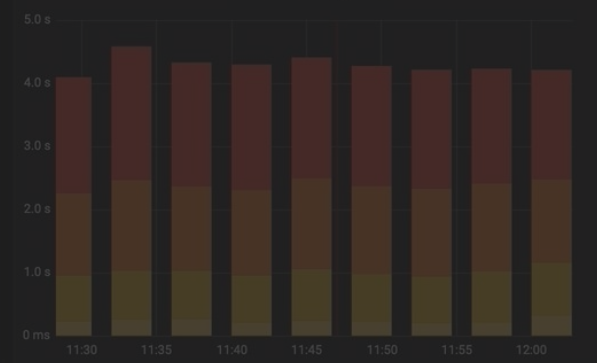
Sign outs



server requests



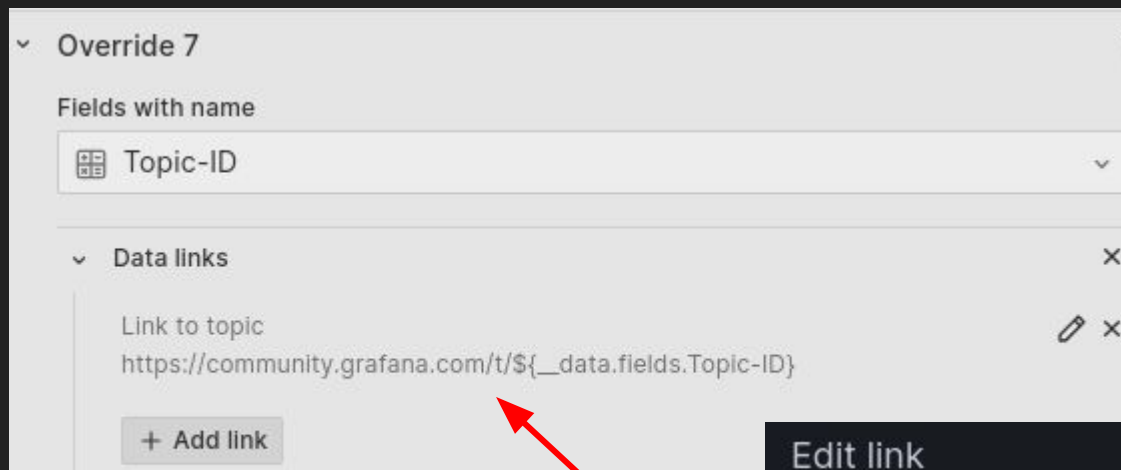
client side full page load



Demo



2 Using Override - Data links



Edit link

Title

Link to topic

URL

`https://community.grafana.com/t/${__data.fields.Topic-ID}`

Open in new tab



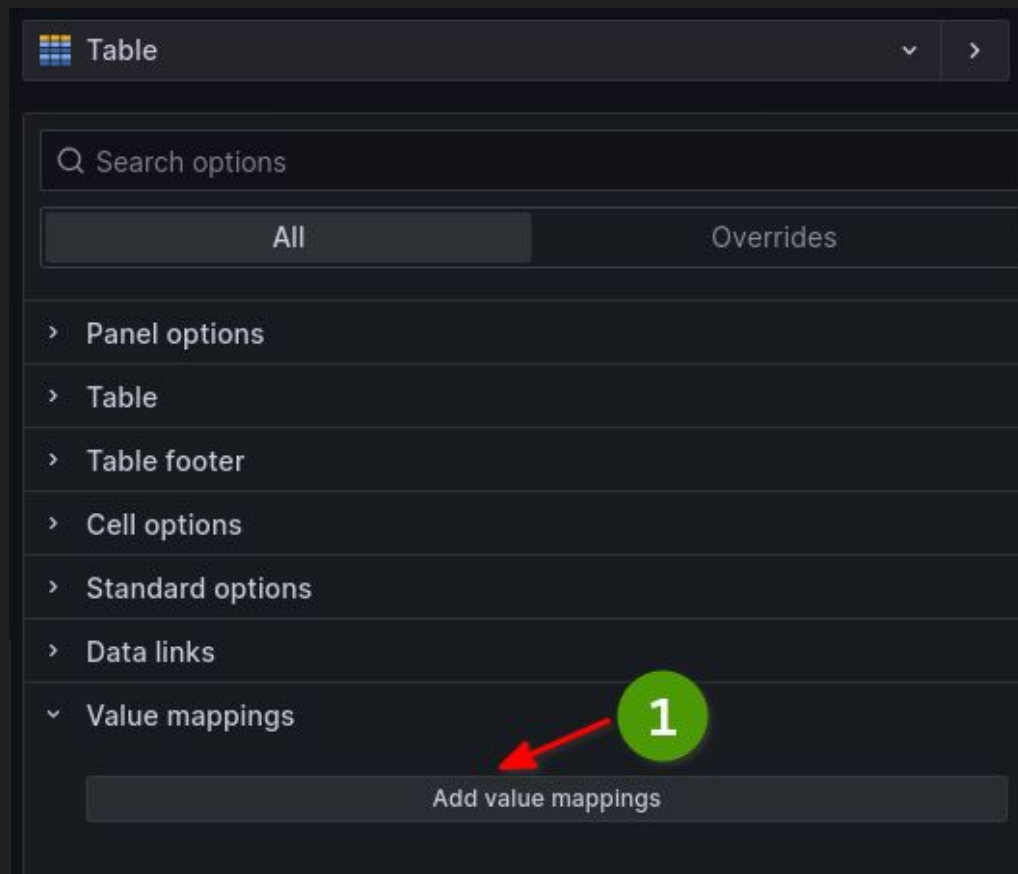
Using Override - Data links

Panel Title

Link to the post

Topic-ID	Title	Reply count	Total views	Last viewed	Status
87028	Database is locked	1	1116	2023-05-13T10:37:16.185Z	UNSOLVED
88090	How can I get CPU usage ...	7	824	2023-06-30T07:46:12.239Z	UNSOLVED
86940	How do you sum all like-n...	2	657	2023-05-03T15:38:15.557Z	SOLVED
90396	Failed to evaluate queries ...	2	598	2023-07-28T11:32:30.758Z	UNSOLVED
89538	Influxdb2: Combining last ...	7	592	2023-06-21T16:33:38.259Z	SOLVED
88901	How to change the labels ...	19	530	2023-06-07T12:04:06.496Z	UNSOLVED

Using Value mapping



Using Value mapping

Value mappings

Condition 2

Display text

Color 3

Value UNSOLVED

UNSOLVED

+ Add a new mapping

Cancel Update

The image shows a 'Value mappings' dialog box. It has three main sections: 'Condition', 'Display text', and 'Color'. The 'Condition' section has a red arrow pointing to a green circle with the number '2', which is positioned above a text input field containing 'UNSOLVED'. The 'Display text' section has a text input field containing 'UNSOLVED'. The 'Color' section has a red arrow pointing to a green circle with the number '3', which is positioned above a color picker showing a red dot. Below these sections are buttons for '+ Add a new mapping', 'Cancel', and 'Update'.

Topic-ID	Title	Reply count	Total views	Last viewed	Status
87028	Database is locked	1	1120	2023-05-13T10:37:16.185Z	UNSOLVED
88090	How can I get CPU usage for multiple servers withi...	7	826	2023-06-30T07:46:12.239Z	UNSOLVED
86940	How do you sum all like-named rows?	2	658	2023-05-03T15:38:15.557Z	SOLVED
90396	Failed to evaluate queries and expressions: input d...	2	600	2023-07-28T11:32:30.758Z	UNSOLVED
89538	Influxdb2: Combining last + sum to get weekly valu...	7	596	2023-06-21T16:33:38.259Z	SOLVED
88901	How to change the labels and color of the gauge p...	19	534	2023-06-07T12:04:06.496Z	UNSOLVED
87835	Found duplicate series for match group	0	519	2023-06-21T10:17:51.155Z	UNSOLVED
86860	Need to set variable in same dashboard when click...	6	509	2023-05-02T20:21:19.966Z	SOLVED



Dynamic Dashboard Variables



Grafana Dashboard Variables

- 1 Also known as templating
- 2 Create interactive and dynamic dashboards
- 3 **AVOIDS Duplication!!**



Dynamic dashboard variables

Data source

Ad-hoc filters

Global
variables

Interval

Custom

Constant

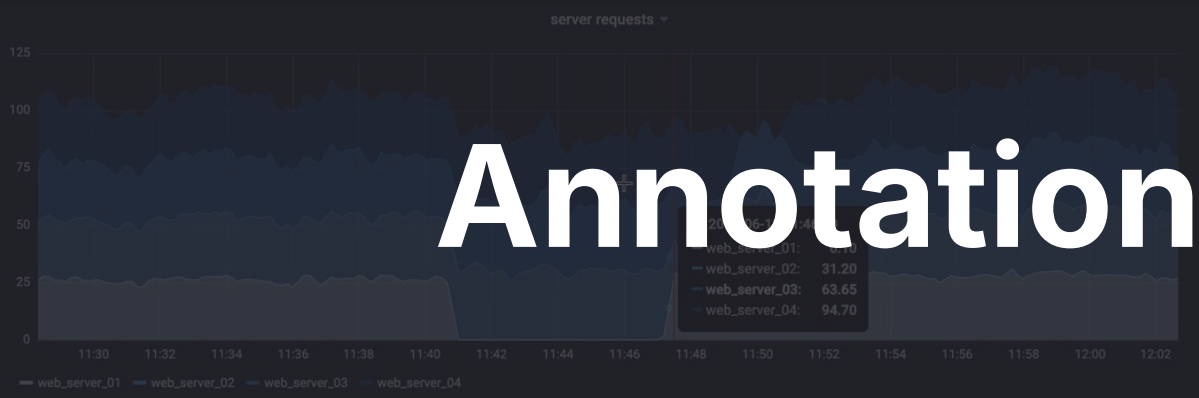
Chained
variables

Query

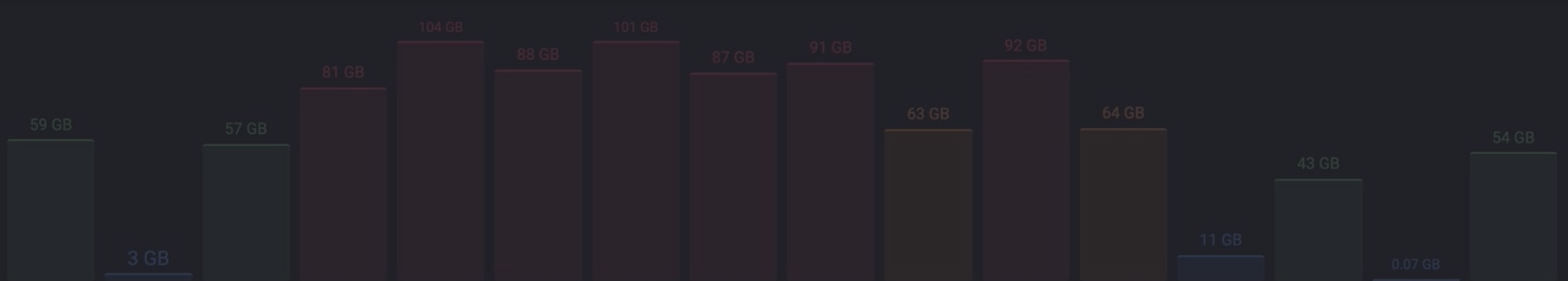
Text Box

Dashboard variables - Custom type

Demo



Annotations



Grafana Annotations

- 1 Mark points on a visualization with events
- 2 Visualized as vertical lines and icons



Annotation

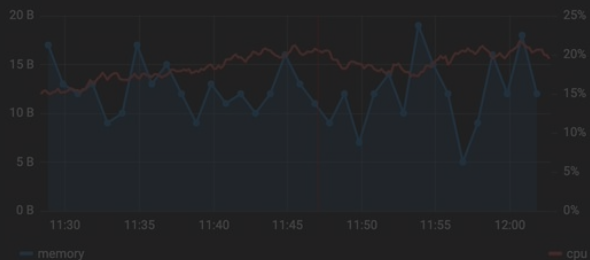
Stats Overview -



Jun 12, 2019 11:29:17 to Jun 12, 2019 12:01:45

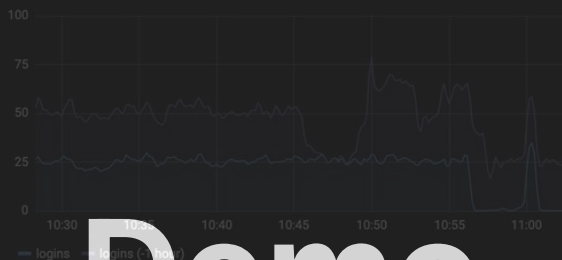


Memory / CPU



logins

timeshift -1h



Memory



Sign ups



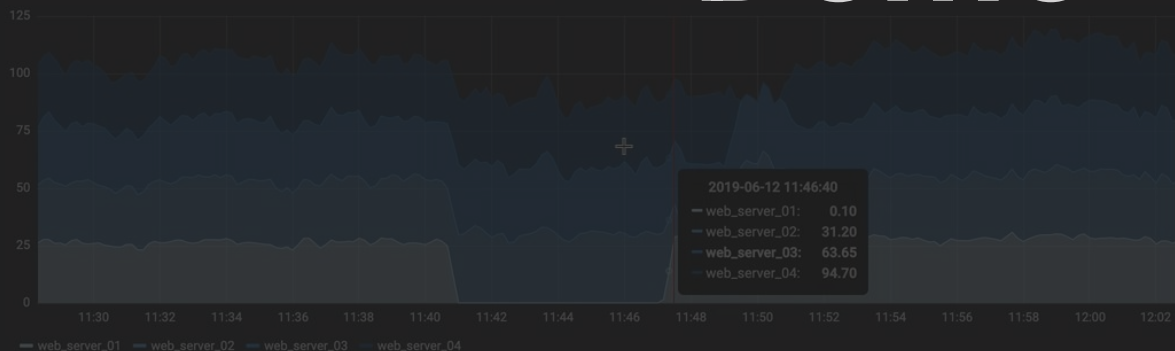
Logouts



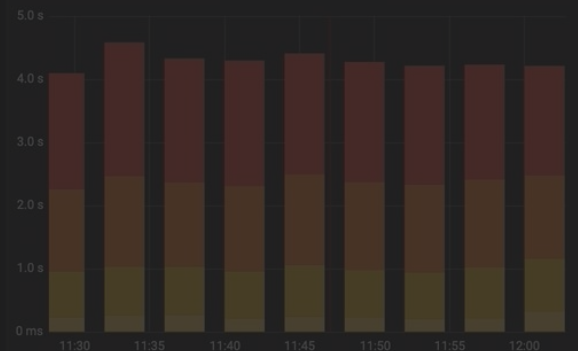
Sign outs



server requests



client side full page load



Demo



Takeaways

1 Centralized Visibility

2 Fits well in your Org.

3 Cross-Platform support



Future Improvements

1

Support Alerting

2

Support from YOU!!



Want to get involved?

1

To report bugs, feature-request:

- GitHub [repo](#)



[grafana/google-sheets-datasource](#)

2

Other useful resources:

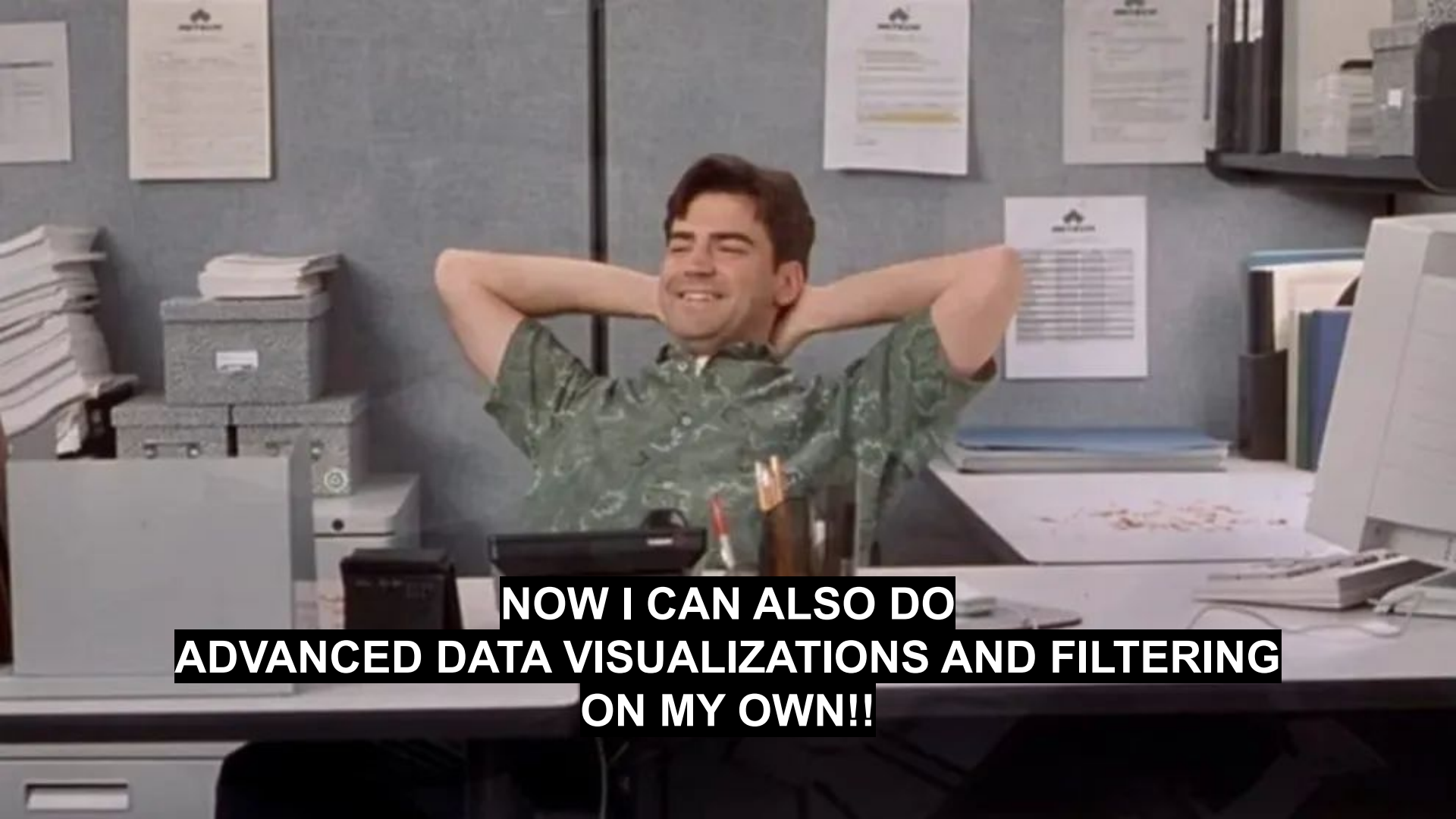
- Slack channel [#grafana](#)
- Community [forum](#)



[#grafana](#)



[community.grafana.com](#)



**NOW I CAN ALSO DO
ADVANCED DATA VISUALIZATIONS AND FILTERING
ON MY OWN!!**



Thanks for participating!

Contact me:



usman.ahmad@grafana.com



linkedin.com/in/usmanlinux/

