Grafana Labs

9,800 Sandboxes and Counting...

Transforming Documentation with Interactive Learning Environments

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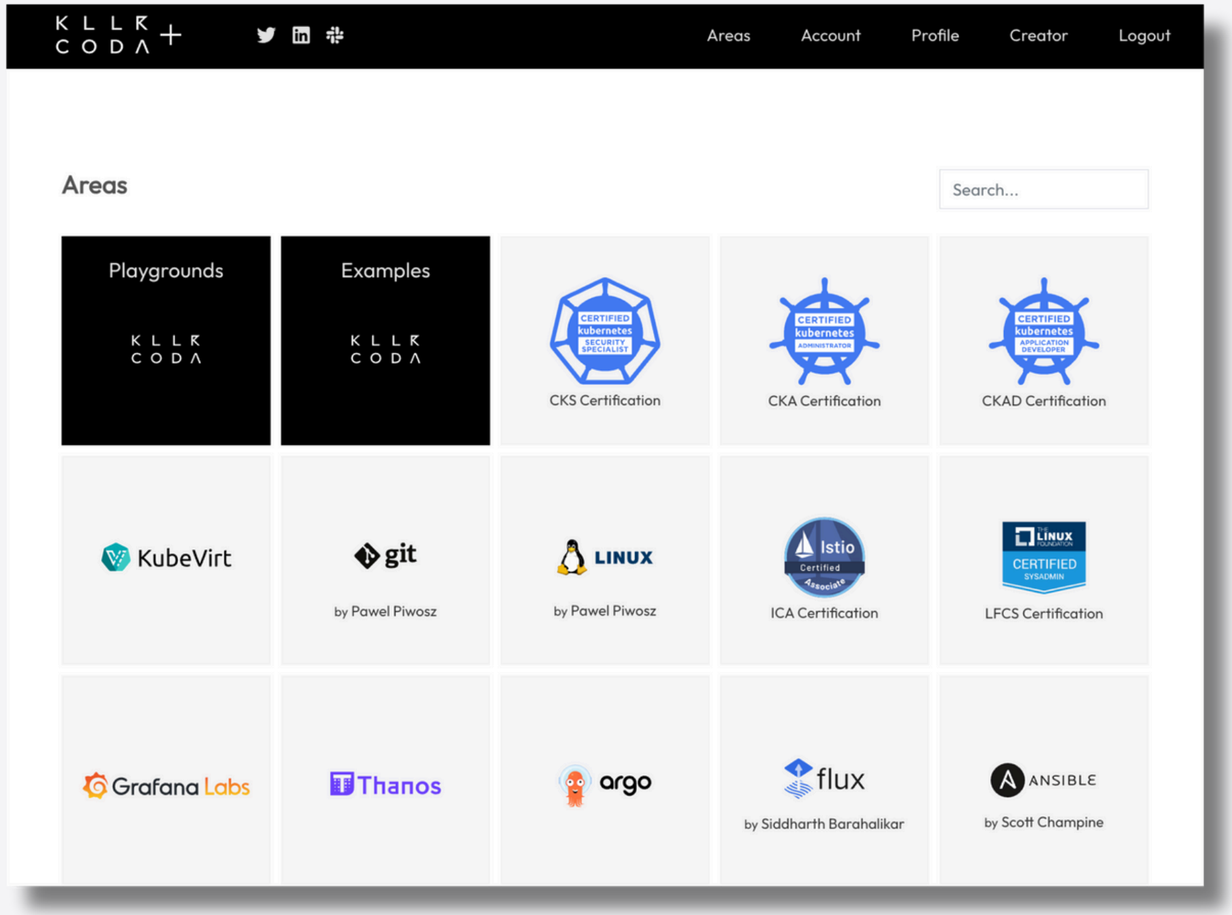
Sr. Developer Advocate | Grafana Labs



A bit about me...

Work at Grafana:

- Create education content for Grafana Loki
- Create documentation
- Run our Interactive Sandbox initiative

Life:

- Big gamer
- Lego enthusiast
- IoT enthusiast

What are we going to cover

The goal of Dev Docs

What are sandboxes?

How we scaled to 9600

Goal

Make your own

The Goal of Dev docs?

Key Source of Truth

for product information

Enablement

grow from beginners to experts

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Enablement

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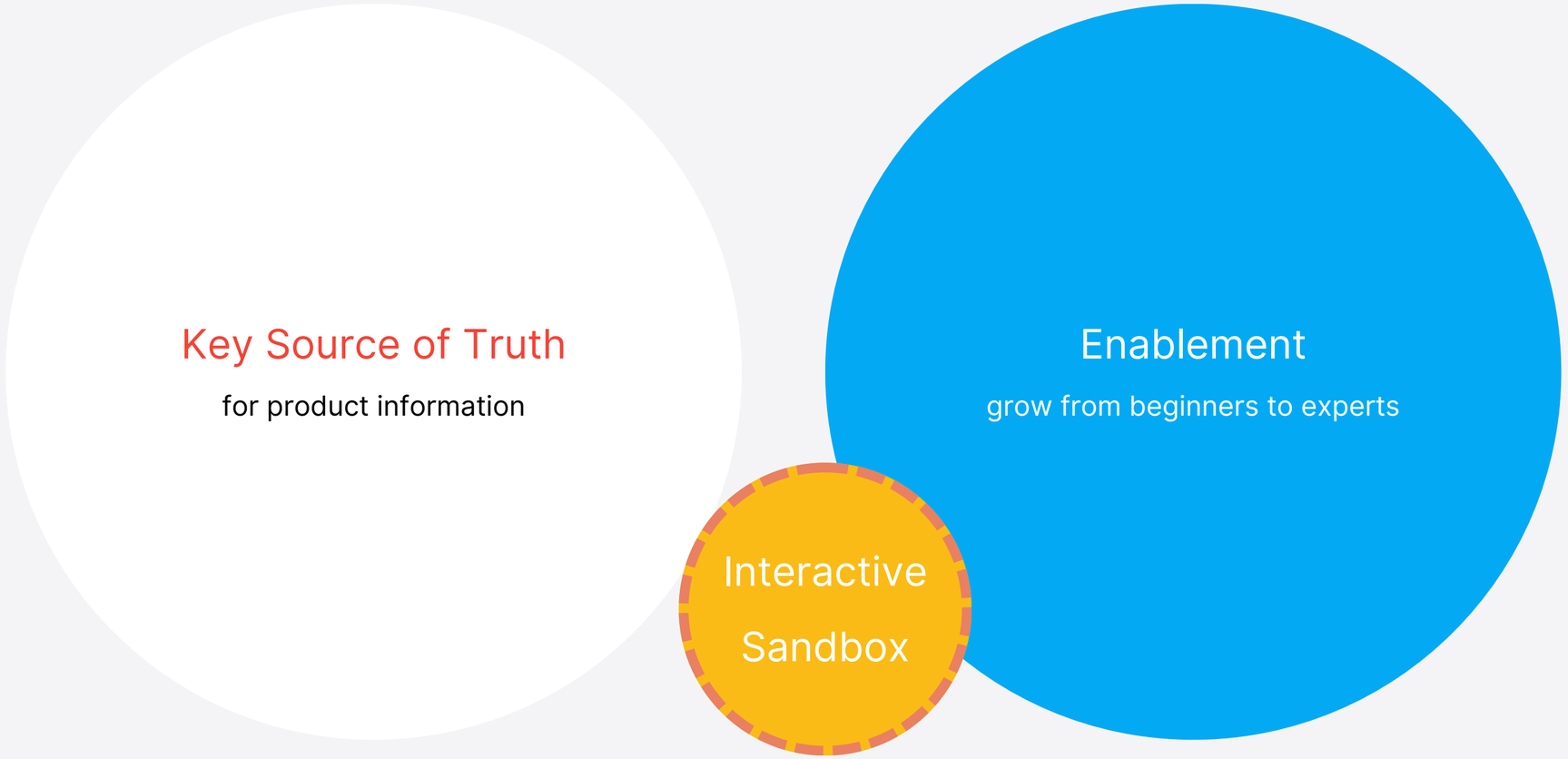
The Goal of Dev docs?



What is a sandbox?

A disposable VM hosted online

Focused on building practical tutorials

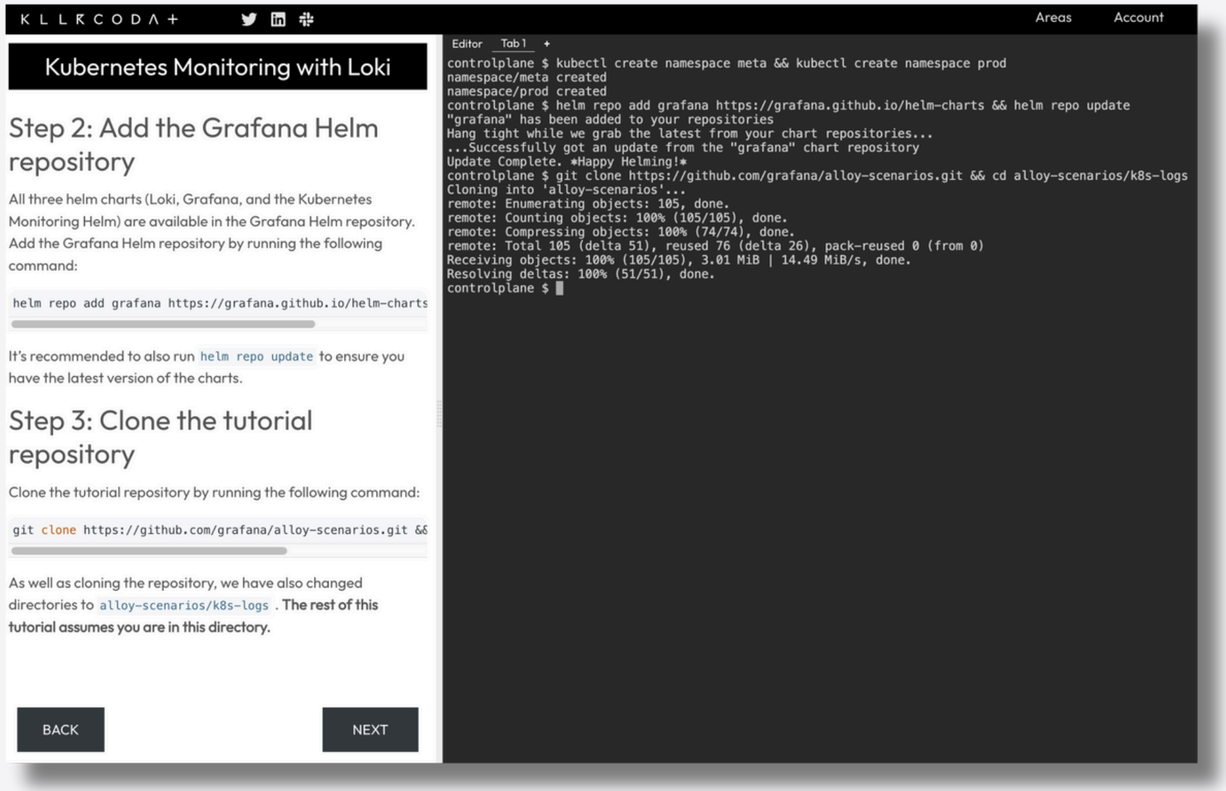
Allows the installation and execution of code and applications

Why sandboxes?

Engage with the documentation interactively, allowing for a more practical and immersive learning experience.

Experiment and practice in a risk-free environment, enhancing their understanding and confidence in using our products.

Accelerate their learning curve, transitioning from beginners to proficient users more effectively.



Free to the user

Creation and participation only require signing up

Build with markdown

Courses are built with markdown and JSON

Flexible environments

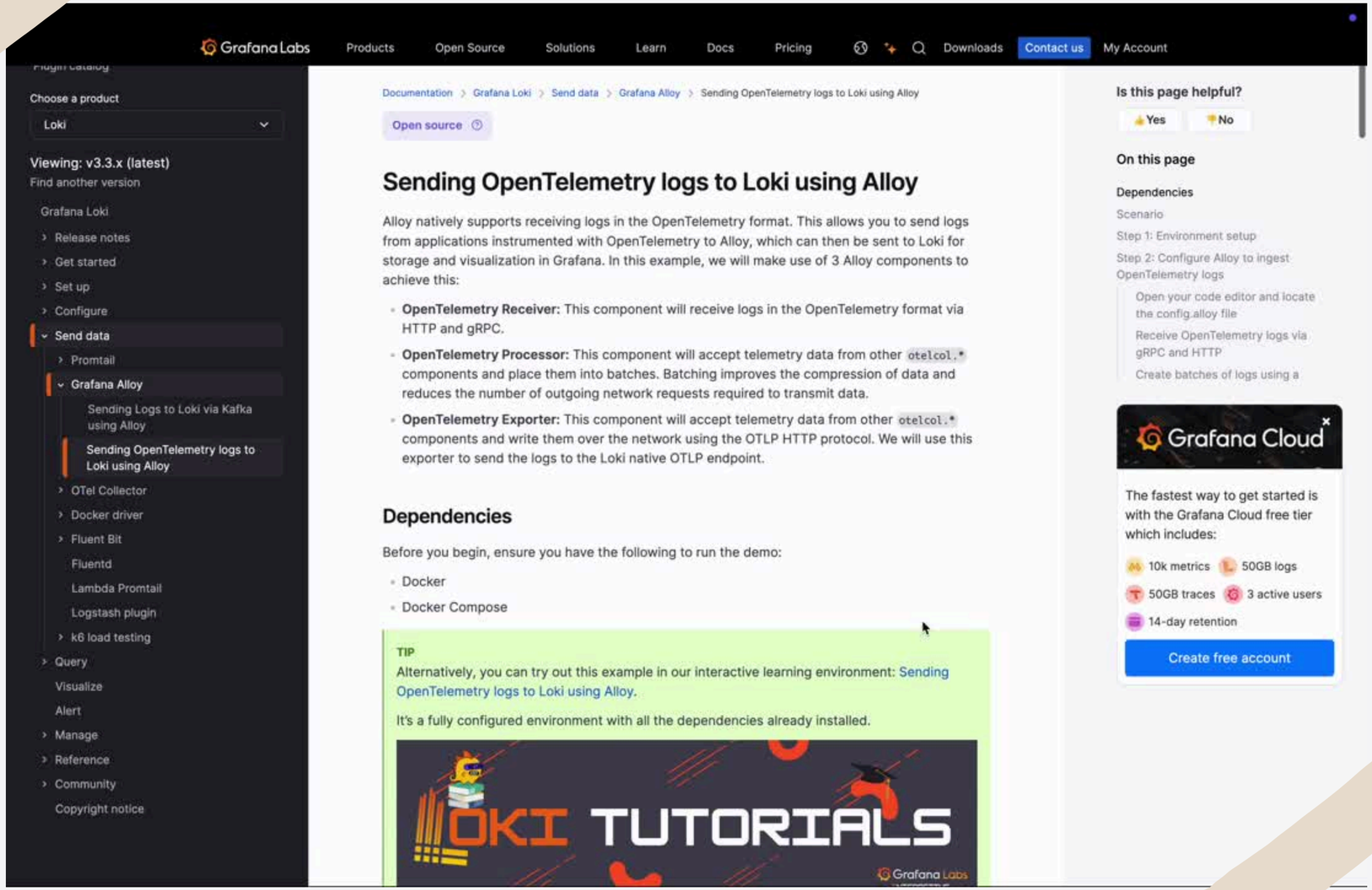
Ubuntu 20.04 with Docker and Podman

Kubeadm cluster with one controlplane, taint removed, ready to schedule workload

Engagement Tracking

Check course utilisation over time with inbuilt trackers

How do we use it?



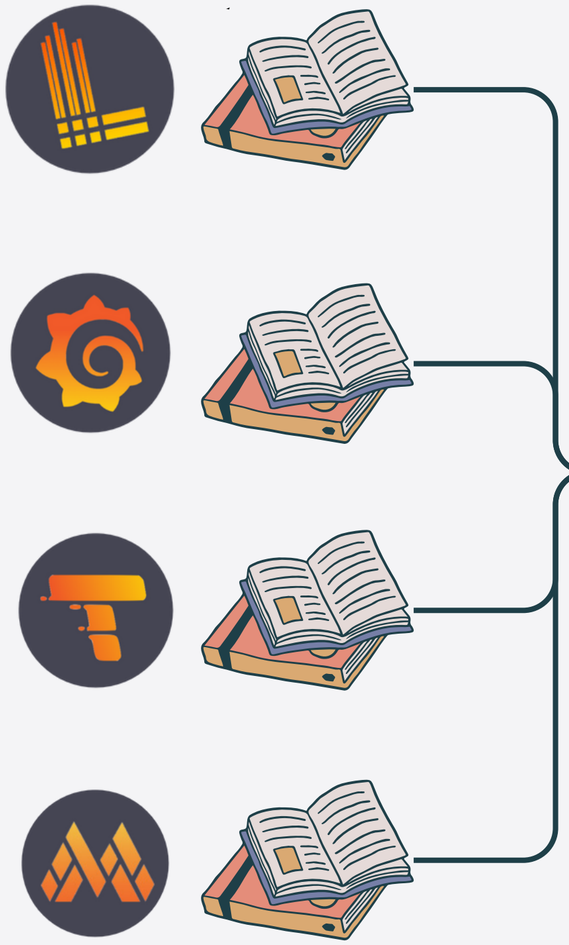
- Linked directly in our docs
- Used for step by step tutorials

Key Source of Truth

for product information

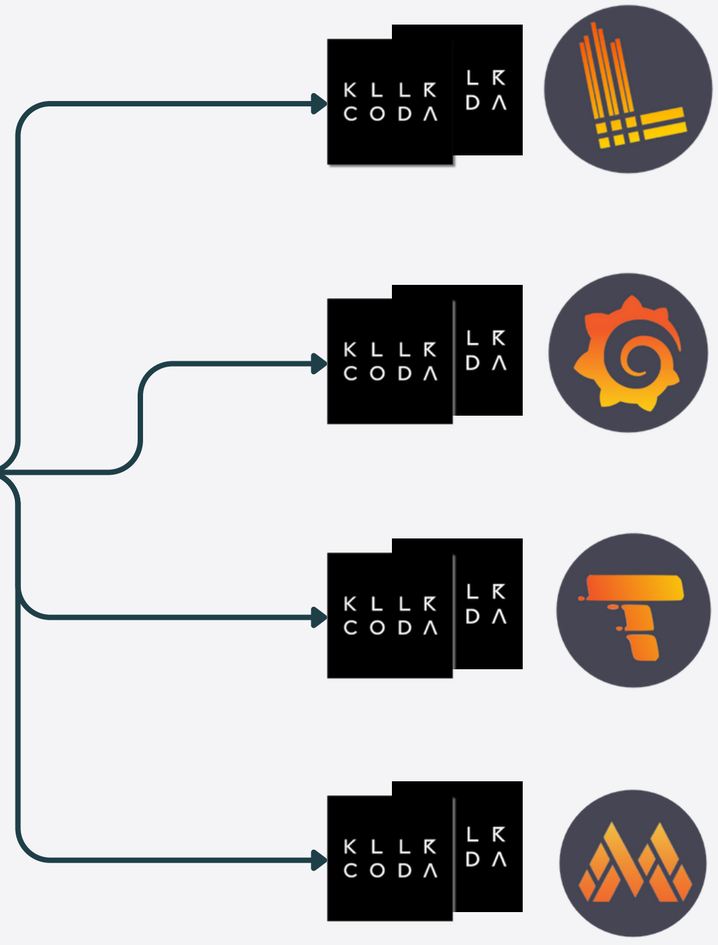

I am going to create
a source of truth that is so single

The Transformer



Parse Docs Into Sandboxes

Automated PR's



Sandbox Transformer

A look under the covers

1

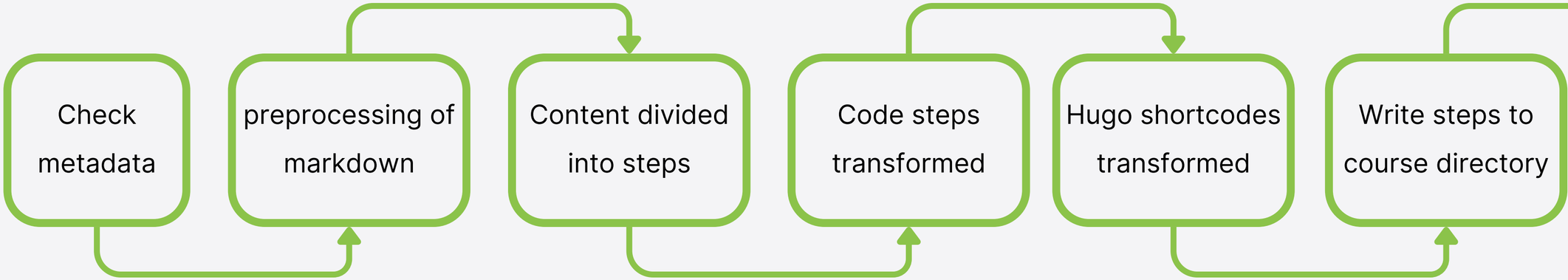
Packages

- Goldmark by Yuin
- go-diff by Sergi
- go-spew by dajohi

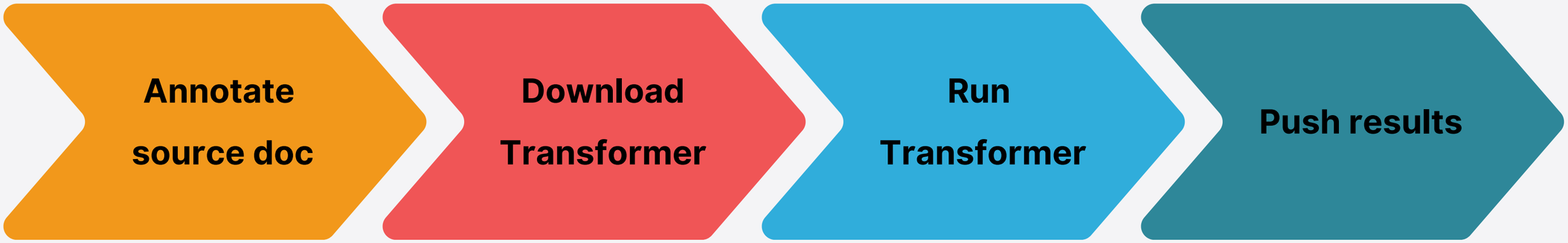
2

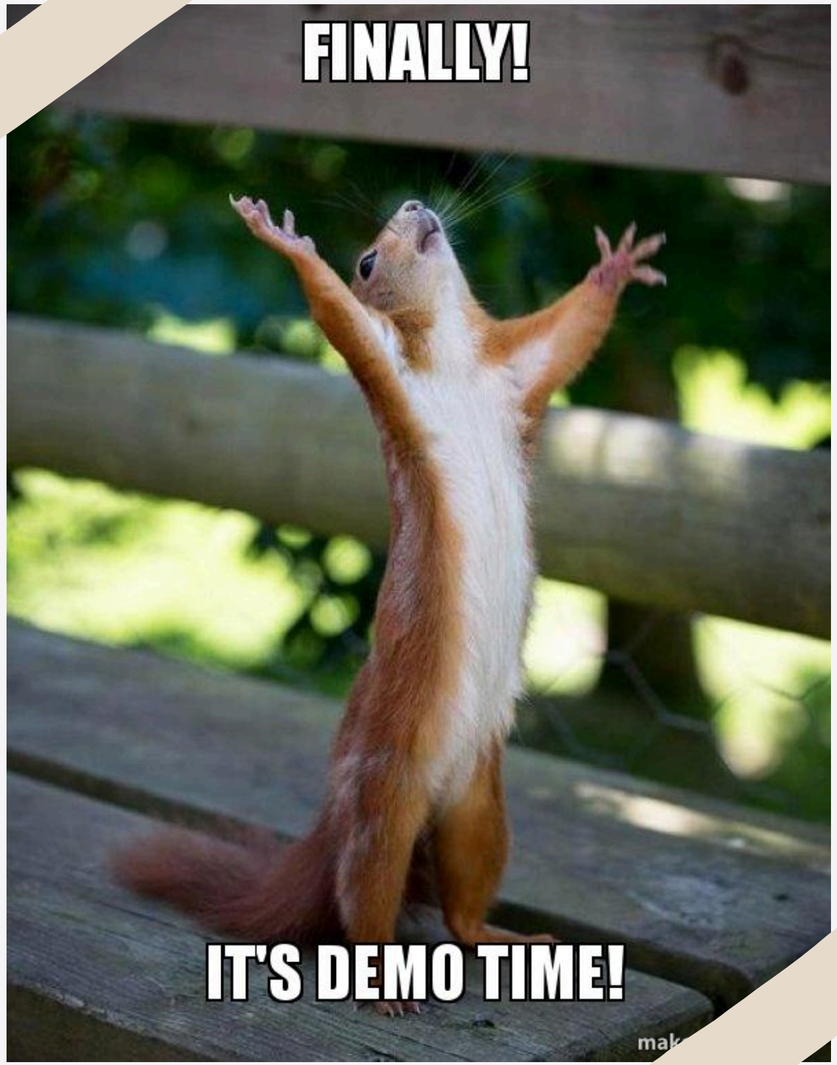
- Designed to work with Hugo annotated markdown docs
- But also works with standard markdown with the exception of requiring metadata

3



Flow to creating a new sandbox





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The Open Observability Stack

KLLR CODA

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At Grafana Labs, we believe in Open Source and Open Standards. Most of our code is open and free for you to use, and you can find it here. From homelabs to the largest organizations on Earth, everyone is using our…

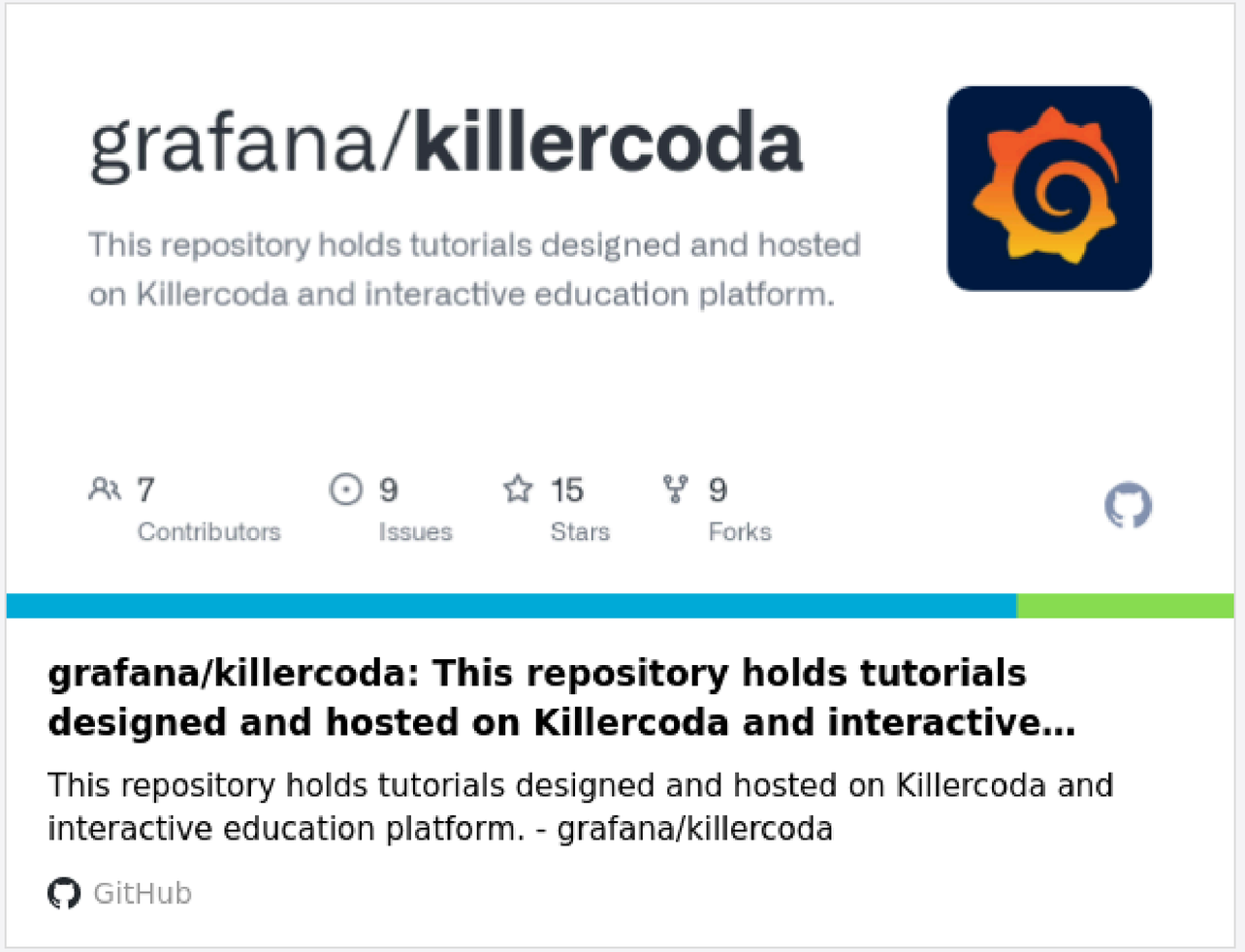
killercoda.com

Time is limited

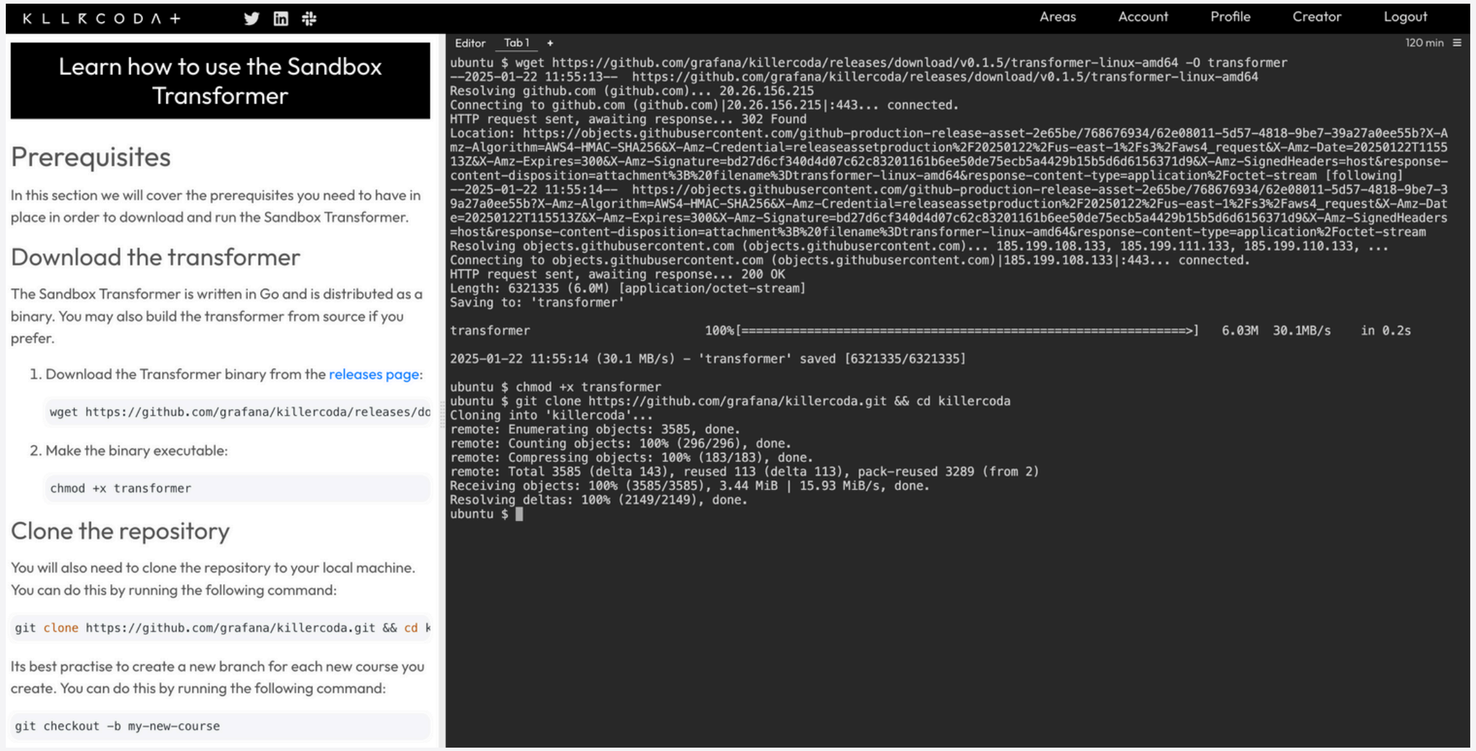
Lets get you up and running!

Transformer Repo

https://github.com/grafana/killercoda



How to run the transformer



https://killercoda.com/grafana-labs/course/sandbox-developer/sandbox-transformer-walk-through

Example in our docs

https://grafana.com/docs/loki/latest/send-data/alloy/examples/alloy-otel-logs/

Sending OpenTelemetry logs to Loki using Alloy

Alloy natively supports receiving logs in the OpenTelemetry format. This allows you to send logs from applications instrumented with OpenTelemetry to Alloy, which can then be sent to Loki for storage and visualization in Grafana. In this example, we will make use of 3 Alloy components to achieve this:

- **OpenTelemetry Receiver:** This component will receive logs in the OpenTelemetry format via HTTP and gRPC.
- **OpenTelemetry Processor:** This component will accept telemetry data from other `otelcol.*` components and place them into batches. Batching improves the compression of data and reduces the number of outgoing network requests required to transmit data.
- **OpenTelemetry Exporter:** This component will accept telemetry data from other `otelcol.*` components and write them over the network using the OTLP HTTP protocol. We will use this exporter to send the logs to the Loki native OTLP endpoint.

Dependencies

Before you begin, ensure you have the following to run the demo:

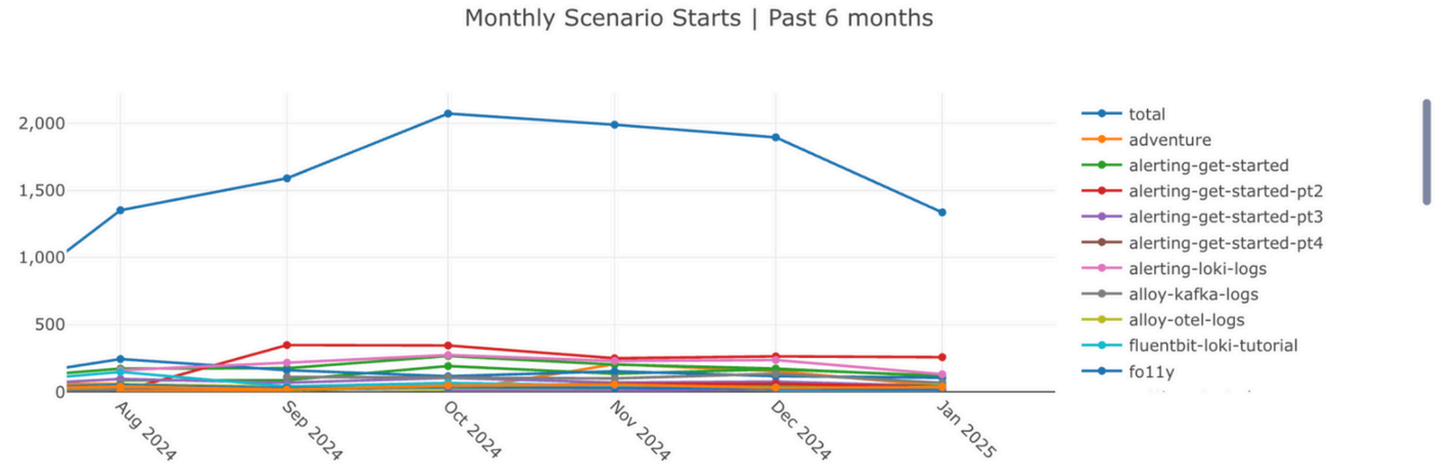
- Docker
- Docker Compose

TIP
Alternatively, you can try out this example in our interactive learning environment: Sending OpenTelemetry logs to Loki using Alloy.

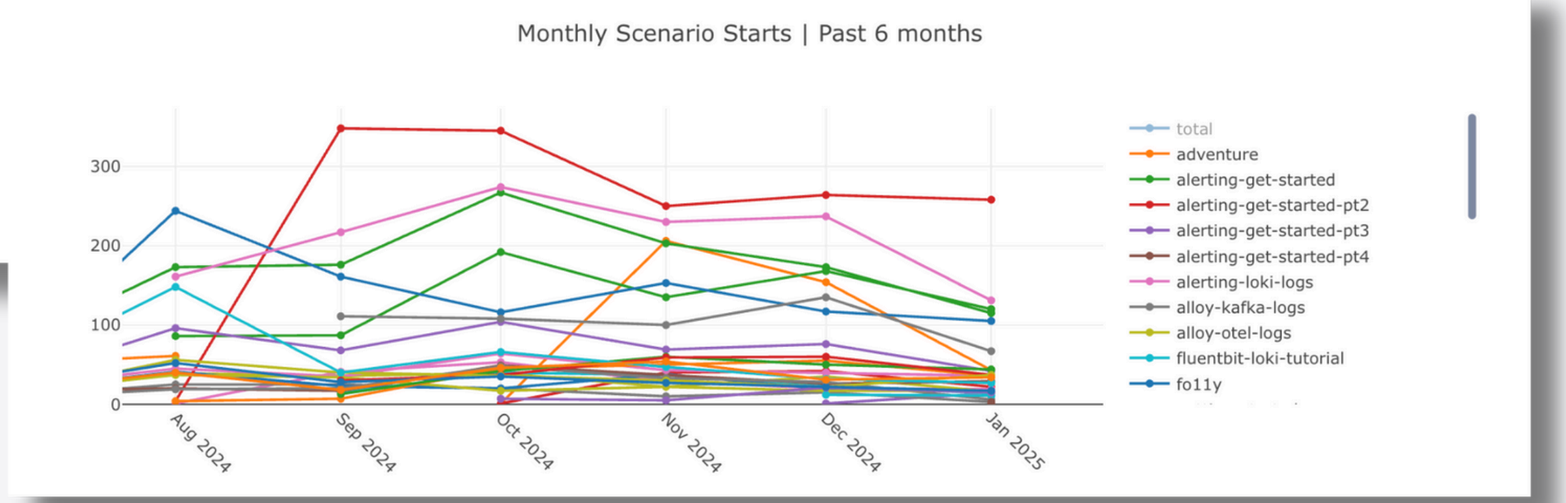
It's a fully configured environment with all the dependencies already installed.

Provide feedback, report bugs, and raise issues in the Grafana Killercoda repository.

How its going?



- Numbers in graphs are excluding your own account
- Times in graphs are in UTC timezone
- Records older than 6 months aren't available
- Single click on legend to exclude entries
- Double click on legend for focus mode
- Use mouse to zoom into areas



Thank you for attending

Any questions?