1. Project, monitor app with Prometheus

An app running on a docker host should be monitored by ***Prometheus***.

Prerequisites:

- some local docker installation (*docker CLI* for Linux or *Docker Desktop* for MAC and Windows)
- docker compose installed/enabled

How to monitor container:

A container can be monitored by ***Prometheus*** by exposing a proper metrics endpoint (HTTP method GET). By periodically fetching the metrics from the endpoint (scraping, scrape jobs) the metrics are stored within Prometheus time series database. By connecting ***Grafana*** the metrics can be displayed in some minimal dashboard.

What will we do:

In this example we will deploy ***Prometheus*** service to our local docker node. Next we will configure a suitable scrape job in order to get metrics from some app which you can get from ***https://github.com/AndiKleini/dockersamples*** and extend it by some metrics exporting endpoint. You can also create a fresh app on your own if you like.

The metrics calls_count, that is simply counting the number of calls handled by any endpoint of the API starting from the last scrape fetch (this means you can reset the counter on each fetch and start counting from zero) should be visualized by a minimal ***Grafana*** dashboard.

When are you done:

- Add a metrics exporting endpoint to your API
- Deploy ***Prometheus*** and ***Grafana***
- Configure scrape job for the endpoint provided above
- Display the metrics in ***Grafana*** (no special Dashboard is required).
- Submit a compose file and instructions for verification

For supporting articles look here:

- ***https://github.com/docker/awesome-compose/tree/master/prometheus-grafana*** (Grafana and Prometheus docker compose)
- https://prometheus.io/docs/tutorials/getting_started/