

# Lab10 - Prometheus

## Infrastructure preparation

1. This lab is an extension to docker-compose lab.
  - Copy the tree created in lab9 (directories and files) in the current directory.
  - Create the path prometheus/conf/prometheus.yml
2. Stop and remove all containers, networks, images, and volumes on the host.

## Adding prometheus and grafana to docker-compose

3. Add lines to docker-compose.yml file to create a prometheus container, with following specifications :
  - Image : prom/prometheus
  - container\_name: prometheus1
  - Push port : 9090:9090
  - Hostname : Prometheus
  - Monter /etc/prometheus du conteneur sous prometheus/conf de l'hôte.
  - Network : wiki-net
4. Add lines to docker-compose.yml file to create a grafana container, with following specifications :
  - Image : grafana/grafana
  - container\_name: grafana1
  - Push port : 3000:3000
  - Hostname : Prometheus
  - Monter /etc/prometheus du conteneur sous prometheus/conf de l'hôte.
  - Network : wiki-net

## Create and start containers

5. Using docker-compose command, create the containers
  - Give names, status, IP addresses, open ports, etc ... of all created containers
6. Test the mediawiki using web browser
  - Is everything Ok ?

## Configuring prometheus

7. Open prometheus dashboard (via container and localhost)
  - What is the URL ?
  - By default, what container is monitored by prometheus ?
  - What is the path of prometheus configuration file ?
8. Add jobs to prometheus to monitor :
  - Nginx web server on the « App » container.
  - Mysql server on the « db » container
9. Refresh prometheus1 dashboard.
  - Is Nginx and Mysql targets added to the dashboard ? Why ?
10. Install and start the following exporters :
  - mysqld\_exporter to « db » container
  - nginx\_exporter to « App » container
11. Restart prometheus1.
  - Is everything ok now on the prometheus1 dashboard ?

## Configuring grafana

12. Open the dashboard of grafana1.
  - What do you see on the dashboard ?
13. Do the following on the dashboard to creating prometheus data source :
  - Click on the Grafana logo to open the sidebar menu.
  - Click on "Data Sources" in the sidebar.
  - Click on "Add New".
  - Select "Prometheus" as the type.
  - Set the appropriate Prometheus server URL
  - Adjust proxy access to off.
  - Click "Add" to save the new data source.
14. Refresh grafana1 dashboard.
  - Is everything Ok ?