

PRM-101 Introduction to monitoring with Prometheus & Grafana

Course Description:

Prometheus is a leading open-source monitoring solution specifically designed for microservices based cloud native environments. Together with Grafana, a leading open source data visualization tool, it also provides a great metric visualization and analysis experience. This course introduces participants to the basic concepts and architecture of Prometheus and Grafana, their basic deployment and configuration, the usage of some basic Prometheus exporters, the Prometheus Query Language, using graphs to build dashboards to display metrics, the Alert Manager, alert integration with external messaging services, writing custom exporters and redundancy options.

Structure: 50% theory 50% hands on lab exercises.

Target audience: System administrators, developers and Devops who want to understand and use Prometheus and Grafana.

Prerequisites: Proficiency with the Linux CLI. A broad understanding of Linux system administration.

Duration: 2 days

Detailed Course Outline

- Overview of Prometheus & Grafana architecture
- Deployment and configuration of a single Prometheus server
- Using basic exporters (node, MySQL, Apache, NGINX)
- Using Prometheus Query Language
- Deployment and configuration of Grafana
- Using graphs to build dashboards displaying metrics
- Deployment and configuration of the Alert Manager
- Alert integration with external messaging services (email, Slack)
- Writing a custom exporter to instrument a web app
- Redundancy options