**Prometheus and Grafana Basic**

**Duration: 2 Days**

**Day 1**

**Introduction**

* Why is Monitoring important?
* What should I be monitoring?
* Which tools will suit my needs best?
* Prometheus overview
* Grafana overview

**Getting started with Prometheus**

* Pre-requisites
* Installing & configuring Prometheus

**Monitoring Fundamentals**

* What to monitor?
  + Node Exporter
  + StatsD Exporter
  + Graphite Exporter
  + Other popular community exporters
* Push and Pull data collection
* Service Level Objectives (SLOs)
* Service Level Indicators (SLIs)

**Setting up your Metrics**

* Instrumenting an application
* Endpoints
* Label Naming
* Working with Time Series data
* Querying with PromQL
* Metric types:
  + Counters
  + Gauges
  + Histograms
* Functions and Operators
  + Aggregation
  + Binary Operators
  + Functions
* Monitoring Apps
  + Collectors
  + Self-destructing apps
  + Platform as a Service (PaaS)
  + Jobs and Instances
  + Service Discovery

**Day 2**

**Alerts**

* Defining Alerting rules
* Templating
* Alert notifications
* Setting up and configuring Alertmanager with Prometheus
* Grouping
* Inhibition
* Silences
* Behaviour