

AWS EKS

Duration

- 8h

Entry requirements

- Completion of an AWS Basics module or equivalent knowledge
 - Note: You may want to check the contents of the AWS Basics module to confirm whether you are familiar with the concepts presented in this training
- Creation of AWS Sandbox account & Initial login to AWS
- Creation of IAM technical user and credentials
- Creation of GitHub account
- Basic JAVA and Spring knowledge
- Basic understanding of GitHub Actions
- Completion of CICD module might be helpful but is not a must
- Installation of Terraform version 1.4.6

Goals

- Understand basic concepts of Kubernetes
- Understanding building blocks of a backend application deployed on Kubernetes
- Understand how to build and deploy the backend application on Kubernetes
- Understand how to deploy stateful application on Kubernetes
- Understand how to expose the application for a traffic from outside of the cluster

Program

- Welcome & Local environment setup testing
- Deployment of the EKS infrastructure
- Introduction to EKS and Kubernetes
- Kubernetes hands-on: Deployment of Database on Kubernetes
 - Konfiguring the container using a secret
 - Attaching a persistent storage to the container
 - Configuring resource requests and limits
- Kubernetes hands-on: Deployment of the backend application
 - Configuring database connection using configmap and secret
 - Configuring container health check using probes
 - Exposing access to the application with ingress
- Integration with AWS services (database and secret manager)
- Summary & questions
- Infrastructure clean-up

Disclaimers

- This training does not focus on preparation to any certification

- This training is focused on initial and practical experience of AWS EKS