Ondrej Sika DevOps

Course

DevOps RKE & Rancher - On Premise Kubernetes

Course Outline

- Introduction to bare mental Kubernetes
    - Why bare metal Kubernetes?
- Introduction to RKE2
    - RKE2 vs cloud Kubernetes providers
    - RKE2 vs other on prem solutions
- Install RKE2 without Rancher
    - Setup single node cluster
    - Setup multi-master (HA) cluster
- Introduction to Rancher
    - Install Rancher on Kubernetes cluster
- Rancher Dashboard
    - Explore UI for Kubernetes management
    - Multi cluster management
    - Add existing cluster to Rancher
- Create Kubernetes cluster from Rancher
    - Using UI
    - Using Terraform
    - Using CLI
- Cluster management
    - Cluster scaling
    - Backup & Restore
- User Management
    - Users, Roles, Groups
    - SSO (using Keyckoak OIDC)
    - User management via Terraform
- Storage in on-prem Kubernetes
    - Introduction to on-prem storage options
    - Longhorn (Rancher's native storage)
- Longhorn
    - Installation
    - Using storage via PV, PVC
    - Backup & Restore