Curs practic "Introducere in Kubernetes"
Continut tematic

Introducere in Docker
   - teme abordate: cum si cand a aparut si de ce? la ce ajuta?
   - containers versus masini virtuale - avantaje si dezavantaje pentru fiecare
   - cum se poate folosi pe laptopul personal - Rancher Desktop
   - cum se instaleaza si foloseste pe o masina virtuala
   - playing with existing Docker images (docker run etc)
   - creating your own images and (docker build, Docker file)
   - docker-compose - la ce foloseste si scurt exemplu

Introducere in Kubernetes
   - cum a aparut si de ce. la ce ajuta?
   - care a fost competitia, care sunt avantajele Kubernetes?
   - intrebarea "Docker sau Kubernetes"?
   - cum se poate folosi Kubernetes pe propriul laptop
   - cum arata un cluster de Kubernetes in cloud
   - cum arata un cluster de Kubernetes on premise
   - common kubectl commands - Nodes, namespaces, pods - cateva comenzi uzuale
get nodes, run nginx, get pods
   - crearea unei imagini proprii de docker si rularea ei in kubernetes

All about pods
   - creating pods cu comenzi imperative vs declarative
   - getting info about pods (get, describe)
   - accessing pods (logs, exec)
   - advanced topics: health checks, resource management
   - pod persistence/volumes (emptydir volumes etc)

Workloads:
   - replicaset, deployment, daemonset
   - jobs and cronjobs

Networking:
   - labels and annotations
   - service types
   - ingress
   - accessing kubernetes resources from "outside"

Configmaps and secrets
   - the difference between them
   - defining Cm and secrets
   - using them
   - a note on how secure are secrets
   - NEVER put passwords or secrets in GIT!!!

Storage and statefulSets
  - storage - second class citizen in Kubernetes. why? because it's hard
  - running only workloads in Kubernetes (stateless) with "external" storage
  - using a NFS server as storage for kubernetes
  - kubernetes native storage example - Longhorn
  - statefulSet
  - multi-container pods
  - init pods

Working with helm - the kubernetes installer
  - postgresql example
  - kube-prometheus-stack example

Kubernetes operators
  - CRD, operators
  - postgresql with CNPG
  - operator vs helm