

TEAM LEAD VERSION (DevOps-Week-4)



CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

- ▶ Icebreaking
- ▶ Microlearning
- ▶ Questions
- ▶ Interview/Certification Questions
- ▶ Coding Challenge
- ▶ Article of the week
- ▶ Video of the week
- ▶ Retro meeting
- ▶ Case study / project

Teamwork Schedule

Ice-breaking

5m

- Personal Questions (Stay at home & Corona, Study Environment, Kids etc.)
- Any challenges (Classes, Coding, AWS, studying, etc.)
- Ask how they're studying, give personal advice.
- Remind that practice makes perfect.

Team work

10m

- Ask what exactly each student does for the team, if they know each other, if they care for each other, if they follow and talk with each other etc.

Ask Questions

15m

1. What is HPA (Horizontal Pod Autoscaling) in Kubernetes used for ?

- A. Creating new pods horizontally
- B. Scaling pods vertically
- C. Automatically adjusting the number of pod replicas based on resource usage
- D. Managing pod security

Answer: C

2. What is StorageClass used for in Kubernetes ?

- A. Creating Kubernetes clusters
- B. Defining how storage volumes are provisioned and managed
- C. Managing network policies
- D. Configuring pod security

Answer: B

3. What is the primary purpose of an Ingress controller in Kubernetes ?

- A. To create and manage Kubernetes services
- B. To configure routing rules for incoming external traffic

- C. To scale pods horizontally
- D. To manage CPU and memory resources

Answer: B

4. Helm Charts can be used to:

- A. Deploy only applications
- B. Deploy only services
- C. Deploy complex applications and services as a single unit
- D. Deploy Kubernetes clusters

Answer: C

5. What does EKS do to simplify Kubernetes cluster management ?

- A. Manually deploys clusters
- B. Automates cluster deployments and updates
- C. Provides a Kubernetes development environment
- D. Offers Kubernetes consulting services

Answer: B

Interview/Certification Questions

20m

1. What does Amazon EKS provide as a managed Kubernetes service ?

Answer:

Amazon EKS provides a fully managed Kubernetes service that automates the deployment, scaling, and management of Kubernetes clusters. This service simplifies cluster operations, including updates and patches, while offering a highly available and secure platform for running containerized applications.

2. In Kubernetes, what is the primary role of Ingress resources ?

Answer:

In Kubernetes, Ingress resources play a crucial role in managing external access to services within the cluster. They define the rules for routing incoming traffic to specific services based on hostnames, paths, or other criteria. Ingress resources act as an entry point for HTTP and HTTPS traffic, enabling external access to services while providing routing and load balancing capabilities.

3. When does HPA add more pod replicas to a deployment in Kubernetes ?

Answer:

HPA adds more pod replicas to a deployment in Kubernetes when the observed metrics (e.g., CPU utilization) exceed the defined thresholds. It continuously monitors the resource metrics and dynamically scales the number of replicas to match the specified target resource utilization, helping applications handle varying workloads efficiently.

4. What is the primary goal of the Microservices architecture pattern ?

Answer: *The primary goal of the Microservices architecture pattern is to decompose complex applications into smaller, independently deployable and manageable services. This architectural style promotes modularity, agility, and ease of maintenance by breaking down an application into discrete services that can be developed, deployed, and scaled independently.*

5. In Amazon EKS, can you choose different Kubernetes versions when creating a cluster ?

Answer: *Yes, when creating an Amazon EKS cluster, you can choose from different Kubernetes versions. Furthermore, Amazon EKS allows you to upgrade the Kubernetes version of an existing cluster to a newer release, providing flexibility in managing your clusters and ensuring compatibility with your applications.*

Article of the Week**10m**

- [What is Kubernetes?](#)

Video of the Week**10m**

- [What is Kubernetes?](#)

Coding Challenge**5m**

- [Coding Challenge - 004 : Create Phonebook Application](#)

Case study/Project**10m**

Case study should be explained to the students during the weekly meeting and has to be completed in one week by the students. Students should work in small teams to complete the case study.

- [206-Kubernetes-Microservice-Phonebook](#)

Retro Meeting on a personal and team level

10m

Ask the questions below:

- What went well?
- What could be improved?
- What will we commit to do better in the next week?

Closing

5m

-Next week's plan

-QA Session
