

# STUDENT VERSION (DevOps-Week-8)

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CLARUSWAY  
WAY TO REINVENT YOURSELF

## Meeting Agenda

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

# Teamwork Schedule

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## 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. Which of the following is the package manager for Kubernetes

- A. yum
- B. apt
- C. helm
- D. yarn

### 2. Which one is not a type of a repository you can have in Nexus Repository Manager?

- A. Group
- B. Hosted
- C. Mixed
- D. Proxy

### 3. Which of the following is a log integration system of Grafana?

- A. Prometheus
- B. Loki
- C. MySQL
- D. Graphite

**4. How does Prometheus collect its metrics?**

- A. By scraping HTTP endpoints based on pull mechanism
- B. By using service discovery
- C. By adding custom code to set which metrics will be monitored
- D. Metrics are set through a YAML configuration file

**5. What are the default ports for Prometheus and Grafana?**

- A. Prometheus: **8080** Grafana: **3306**
- B. Prometheus: **9000** Grafana: **3030**
- C. Prometheus: **9090** Grafana: **3000**
- D. Prometheus: **3306** Grafana: **9090**

**Interview/Certification Questions****20m****1. Which of the following is a serverless compute offering from AWS?**

- A. AWS EC2
- B. AWS Lambda
- C. AWS SNS
- D. AWS Config
- E. AWS SQS

**2. Your company is currently hosting a heavy load application on its On-premise environment. The company has developed this application in-house. Consulting companies then use this application via API calls. You now need to consider moving this application to AWS. Which of the following services would best be suited in the architecture design, which would also help deliver a cost-effective solution? Choose 2 answers from the options given below.**

- A. AWS Lambda
- B. AWS API Gateway
- C. AWS Config
- D. AWS EC2

**3. An organization runs several EC2 instances inside a VPC using three subnets, one for Development, one for Test and one for Production. The Security team has some concerns about the VPC configuration and requires to restrict the communication across the EC2 instances using Security Groups.**

**Which of the following options is true for Security Groups?**

- A. You can change a Security Group associated to an instance if the instance state is stopped or running.
- B. You can change a Security Group associated to an instance if the instance state is stopped but not if the instance state is running.
- C. You can change a Security Group only if there are no instances associated to it.
- D. The only Security Group you can change is the Default Security Group.
- E. The only Security Group you can change is the Default Security Group.

**4. You are the architect of a custom application running inside your corporate data center. The application runs with some unresolved bugs that produce a lot of data inside custom log files generating time-consuming activities to the operation team who is responsible for analyzing them.**

**You want to move the application to AWS using EC2 instances, and at the same time, take the opportunity for improving logging and monitoring capabilities but without touching the application code.**

**What AWS service should you use to satisfy the requirement?**

- A. AWS Kinesis Data Streams
- B. AWS CloudTrail
- C. AWS CloudWatch Logs
- D. AWS Application Logs

**5. While reviewing the Auto Scaling events for your application, you notice that your application is scaling up and down multiple times in the same hour.**

**What changes would you suggest in order to optimize costs while preserving elasticity? (SELECT TWO)**

- A. Modify the Auto Scaling group termination policy to terminate the older instance first.
- B. Modify the Auto Scaling group termination policy to terminate the newest instance first.
- C. Modify the Auto Scaling group cool down timers.
- D. Modify the Auto Scaling group to use Scheduled Scaling actions.
- E. Modify the CloudWatch alarm period that triggers your Auto Scaling scale down policy

## Article of the Week

10m

- [Installing and Upgrading Ansible with \\*pip](#)

## Video of the Week

10m

- [Using CloudFormation Intrinsic Functions](#)

## 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?

## Coding Challenge

5m

- Coding Challenge: Trending Topic

## 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.**

- Project-207 : Web Page Application (Postgresql-Nodejs-React) deployed on EC2's with Ansible, Docker and Nginx Proxy Server

## Closing

5m

-Next week's plan

-QA Session

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