STUDENT VERSION (DevOps-Week-2)

TEAMWORK

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. Containers include the application and all of its dependencies, but share the kernel with other containers. They run as an isolated process in userspace on the host operating system. They're also not tied to any specific infrastructure – Docker containers run on any computer, on any infrastructure, and in any cloud.

A. True
B. False

2. What command should you run to see all running container in Docker?

A. docker run
B. docker ps
C. docker --help
D. docker build
E. docker pull

3. Which command is used to remove all the stopped containers, all the networks that are not used, all dangling images and all build caches?

A. docker system prune
B. docker login

C. docker pull
D. docker rm

4. What is this command used for? (Docker)

```
$ sudo docker run -i -t alpine /bin/bash
```

A. to stop the docker container
B. to see all running container in Docker
C. to run the image as a container
D. to copy the docker container

5. You can't create multiple containers from the same image?

A. True
B. False

Interview/Certification Questions 20m

1. What is difference between virtualization and containerization?

2. What are Docker Images?

3. You are an architect in your organization. Your organization would want to upload files to AWS S3 bucket privately through AWS VPC. In an existing VPC, you created a subnet and VPC endpoint for S3. You also created one route table which routes the traffic from the subnet to a NAT gateway and also the traffic to S3 through the internet via the NAT gateway. But in AWS S3 server logs, you noticed that the request to S3 bucket from an EC2 instance is not coming via the Internet through the NAT Gateway. What could be causing this situation?

A. When NAT Gateway and VPC end-point exist on the same route table, NAT Gateway always takes precedence.
B. EC2 instance is having an elastic IP address associated with it.
C. The request was redirected through the VPC endpoint.
D. AWS S3 is a managed service, all requests will always go through internet.

4. You have a web application hosted on AWS VPC with a single EC2 instance with Auto Scaling enabled. You have also assigned elastic IP address to the EC2 instance. When you access the elastic IP address, you are able to successfully connect to your web application. You decided to route requests to your application from a custom domain through Route 53. You have performed the setup on Route 53. However, when you access your custom domain name from the internet, you get "Server Not Found" error. Which of the following could be a reason?

A. Route 53 service is for internal application routing. It does not support routing trac from the internet.
B. You must configure elastic load balancer in order to use Route 53 for web application hosting.
C. IP address configured in Route 53 DNS record set might be incorrect.
D. The resource on EC2 instance that you're routing trac to is unavailable.

5. Your company is planning on hosting an application that will be based on Docker containers. They need to setup an orchestration service that would automatically scale based on the load. As much as possible , the company does not want the burden of managing the underlying infrastructure. Which of the following can assist in this scenario?

A. AWS ECS with service Auto Scaling
B. Use an Elastic Load Balancer in front of an EC2 Instance. Use Docker containers on the EC2 Instance.
C. Use Auto Scaling with Spot Instances for the Orchestration Service.
D. Install and use Kubernetes on the EC2 Instance

Article of the Week 10m

- How Can We Easily and Visually Explain Docker-Compose?

Video of the Week 10m

- Containerization Explained

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: Create Resources on AWS (Terraform)

Case study/Project 10m

- Project-202: Phonebook Application (Python Flask) deployed on AWS Application Load Balancer with Auto Scaling and Relational Database Service using Terraform

Closing 5m

-Next week's plan

-QA Session
