TEAM LEAD VERSION (DevOps-Week-6)

TEAMWORK

CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

- ▶ Icebreaking
- ▶ 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. In which language Ansible modules are written?

A. Ruby
B. Java
C. Python
D. YAML

Answer: *C*

2. What language is an Ansible playbooks are written?

A. HTML
B. Python
C. YAML
D. JSON

Answer: *C*

3. Ansible uses agent/master architecture.

A. True
B. False

Answer: *B*

4. Which of the following has highest priority for Ansible configuration settings?

A. ansible.cfg *(in the current directory)*
B. .ansible.cfg *(in the home directory)*
C. ANSIBLE_CONFIG *(an environment variable)*
D. /etc/ansible/ansible.cfg

Answer: *C*

5. What is the following command do? (Ansible)

```
- name: _________
  yum:
    name: httpd
    state: absent
```

A. Install the nginx package
B. Remove the nginx package
C. Remove the Apache package
D. Install the Apache package
E. Update the Apache package

Answer: *C*

Interview/Certification Questions 20m

1. What are Ad-hoc commands?

Answer:

Ad-hoc commands are simple one-line commands which are used to perform a certain task. You can think of Ad-hoc commands as an alternative to writing playbooks.

For example, if we want to reboot all hosts in a particular group(webservers). Then you can write a playbook or simply run a one-off ad-hoc command.

2. What is "idempotency"?

Answer:

idempotency is an important Ansible feature. It prevents unnecessary changes in the managed hosts. With idempotency, you can execute one or more tasks on a server as many times as you need to, but it won't change

anything that's already been modified and is working correctly. To put it in basic terms, the only changes added are the ones needed and not already in place.

3. You lead a team to develop a new online game application in AWS EC2. The application will have a large number of users globally. For a great user experience, this application requires very low network latency and jitter. If the network speed is not fast enough, you will lose customers. Which tool would you choose to improve the application performance? (Select TWO.)

A. AWS VPN
B. AWS Global Accelerator
C. Direct Connect
D. API Gateway

Answer: *B and E*

This online game application has global users and needs low latency. Both CloudFront and Global Accelerator can speed up the distribution of contents over the AWS global network.

Option A is incorrect: AWS VPN links on-premise network to AWS network. However, no on-premise services are mentioned in this question.
Option B is CORRECT: AWS Global Accelerator works at the network layer and is able to direct traffic to optimal endpoints. Check Link for reference.
Option C is incorrect: Direct Connect links on-premise network to AWS network. However, no on-premise services are mentioned in this question.
Option D is incorrect: API Gateway is a regional service and cannot improve the application performance. API Gateway is suitable for serverless applications such as Lambda.
Option E is CORRECT: Because CloudFront delivers content through edge locations and users are routed to the edge location that has the lowest time delay.

4. Which of the following is a correct statement in relation to ECS instances when accessing Amazon ECS service endpoint? Choose 2 options.

A. Create an Interface VPC Endpoint for ECS service and attach to VPC subnet's route table in which ECS instances are running.
B. ECS instances are launched with ECS-optimized AMI which contains an inbuilt mechanism to communicate with ECS service endpoints through AWS network.
C. Create a NAT Gateway and attach it to VPC subnet's route table in which ECS instances are running.
D. AWS service endpoints are accessible internally across VPCs. You need to enable IAM role access on the service which needs to be accessed.

Answer: *A and C*

The container agent runs on each infrastructure resource within an Amazon ECS cluster. It sends information about the resource's current running tasks and resource utilization to Amazon ECS, and starts and stops tasks whenever it

receives a request from Amazon ECS. Link

Option A is correct.ECS supports interface VPC endpoints. Link

Option B is not correct. Any network communication happening in/out of VPC must follow the rules defined on route tables, Network ACLs and Security Groups. Any external communication (internet facing or AWS service endpoints) must either go through Internet Gateway, NAT Gateway or VPC Endpoints (if applicable). Link

5. You are working for an organization which is actively using AWS. They have noticed that few AWS ECS clusters are running and they do not know who and when the clusters are created. They tasked you to find out the logs regarding this. What will you do?

A. Check CloudWatch event logs
B. Check CloudTrail logs.
C. Check CloudWatch metrics dashboard.
D. Check Trusted Advisor.

Answer: *B*

Amazon ECS is integrated with AWS CloudTrail, a service that provides a record of actions taken by a user, role, or an AWS service in Amazon ECS. CloudTrail captures all API calls for Amazon ECS as events, including calls from the Amazon ECS console and from code calls to the Amazon ECS APIs.

Article of the Week 10m

- Creating Adding And Authorizing Users and Groups For ssh Connection With Ansible

Video of the Week 10m

- What is Ansible?

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

- Cloning a Remote Repository Using Ansible Playbook

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 and Docker

Closing 5m

-Next week's plan

-QA Session
