

TEAM LEAD VERSION (Week-1)



CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

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

Teamwork Schedule

Ice-breaking

10m

- 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.

Ask Questions

20m

1. Python uses

- A.** Compiler
- B.** VS CODE
- C.** Interpreter
- D.** Linux

Answer: C

2. What will be the output?

```
x=2
y=10
x*=y*x+1
print(x)
```

- A.** 41
- B.** 42
- C.** 401
- D.** 60

Answer: B

3. What are the generators in python?

Answer: Functions that return an iterable set of items are called generators.

4. What are docstrings in Python?

Docstrings are not actually comments, but, they are documentation strings. These docstrings are within triple quotes. They are not assigned to any variable and therefore, at times, serve the purpose of comments as well

5. What can developers now do with AWS CloudFormation that they could not before?

AWS CloudFormation automates and simplifies the task of repeatedly and predictably creating groups of related resources that power your applications. Creating and interconnecting all resources your application needs to run is now as simple as creating a single EC2 or RDS instance.

6. What happens when one of the resources in a stack cannot be created successfully?

By default, the “automatic rollback on error” feature is enabled. This will cause all AWS resources that AWS CloudFormation created successfully for a stack up to the point where an error occurred to be deleted. This is useful when, for example, you accidentally exceed your default limit of Elastic IP addresses, or you don’t have access to an EC2 AMI you’re trying to run. This feature enables you to rely on the fact that stacks are either fully created, or not at all, which simplifies system administration and layered solutions built on top of AWS CloudFormation.

7. How much does AWS CloudFormation cost?

*There is no additional charge for using AWS CloudFormation with resource providers in the following namespaces: AWS::, Alexa::, and Custom::. *In this case you pay for AWS resources (such as Amazon EC2 instances, Elastic Load Balancing load balancers, etc.) created using AWS CloudFormation as if you created them manually. You only pay for what you use, as you use it; there are no minimum fees and no required upfront commitments.*

When you use resource providers with AWS CloudFormation outside the namespaces mentioned above, you incur charges per handler operation. Handler operations are create, update, delete, read, or list actions on a resource. For more information, please refer to the pricing page

8. Will you be charged for resources that were rolled back during a failed stack creation attempt?

Yes. Charges for AWS resources created during template instantiation apply irrespective of whether the stack as a whole could be created successfully or not.

For more questions and answers related to AWS CloudFormation please visit AWS CloudFormation FAQs page at: [Link](#)

Interview/Certification Questions

20m

1. Name some of the key features of Python?

Interpreted : Every line of code is interpreted by the interpreter and turned into machine code. This process doesn't produce a compiled and reusable version of the program. **Dynamically-typed** : Type of a variable is checked not in the compile time but in the runtime and can be changed while the code flows. Ex:

a = "Hello" a = 9 Operation above is valid in Python but in Java or C, C++

Object-oriented : It is a programming paradigm that is based on objects. Objects represent real life objects like a car, a house, an animal or in general a form of data. In this programming paradigm, manipulations or changes in a field (like the number of doors of this car or the model of this car) are made via this object.

Concise and simple : It's simple because it's near to human level language. It's concise because with fewer lines of code much more can be achieved.

Free : It's free to download and install.

Has a large community : There are many Python developers. They produce quite amount of code which lets you to find a specific third party package to accomplish your project with less amount of effort.

2. What is Cloud Computing?

Cloud Computing often referred to as "the cloud", in simple terms means storing or accessing your data and programs over the internet rather than your own hard drive.

3. I have some private servers on my premises, also I have distributed some of my workload on the public cloud, what is this architecture called?

- A.** Virtual Private Network
- B.** Private Cloud
- C.** irtual Private Cloud
- D.** Hybrid Cloud

Answer - C

4. You are planning to serve a web application on the AWS Platform by using EC2 Instances. Which of the below principles would you adopt to ensure that even if some of the EC2 Instances crashes , you still have a working application.

- A.** Using a scalable system
- B.** Using an elastic system
- C.** Using a regional system
- D.** Using a fault tolerant system

Answer - D

A fault tolerant system is one that ensures that the entire system works as expected even if there are issues. For more information on designing fault tolerant applications in AWS, please refer to: [Link](#)

5. A cloud solutions architect needs to execute urgent mission-critical tasks on the AWS Management console, but has left their Windows-based machine at home. What secure option can be used to administer these tasks on the cloud infrastructure given that only non-graphical user interface (non-GUI), Linux-based machines are readily available?

- A.** Share the AWS Management console credentials with the person at home over the phone, so they can execute on the cloud solutions architect behalf
- B.** Use third-party remote desktop software to access the Windows-based machine at home from the non-GUI workstations and administer the necessary tasks
- C.** Use Secure Shell (SSH) to securely connect to the Windows-based machine from one of the non-GUI Linux-based machines then log onto the AWS Management console
- D.** Install and run AWS CLI on one of the non-GUI Linux-based machines, in a shell environment such as bash, the cloud solutions architect can access ALL services just as they could from a Windows-based machine.

Answer – D

AWS Command Line Interface (AWS CLI) is an open source tool that enables access and interaction with AWS services using commands in the command-line shell. With minimal configuration the cloud solutions architect would start using the functionality equivalent to that provided by the browser-based AWS Management Console from the command prompt in a terminal program such as bash. [Link-1](#)

Option A. is INCORRECT because sharing AWS Management console credentials is bad-practice and poses a high security risk. [Link-2](#)

Option B. is INCORRECT accessing the AWS Management console via third-party remote desktop software is insecure since the remote machine can be compromised.

Option C. is INCORRECT because it is rather cumbersome in comparison, though secure the option is oblivious of the direct access method of AWS CLI

Coding Challenge

10m

There is no CC question for this week.

Video of the Week

15m

- [Static vs Dynamic Websites - What's the Difference?](#)

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?

Case study/Project**15m**

Case study should be explained to the students during the weekly meeting and has to be completed in one sprint (2 weeks) by the students. Students should work in small teams to complete the case study.

- [Project-101 : Kittens Carousel Static Website deployed on AWS EC2 using Cloudformation](#)

Closing**5m**

-Next week's plan

-QA Session
