

AWS - CCP CLF-C01

The course is all about video links and notes regarding the **AWS CCP Certification - Certified Cloud Practitioner** aka **CLF-C01** exam

- [Taking AWS Online from my home](#)
- accessCode: 796-726-541
- Candidate ID: AWS01801477

Important Links

- [Udemy Course](#)
- [Youtube Video - Introduction](#)
- [AWS - During Testing](#)
- [AWS - Mind map on MIRO](#)
- [AWS - MIRO](#)
- [AWS - Certification Link](#)
- [DigitalCloud Training](#)
- [Freecodecamp - AWS CCP Certification](#)

AWS Account

- AWS Login Link: [AWS Link](#)
- Email: muhammad.talha@raysiti.com
- Password: payTm@197
- User name: fancium_freelancer_03
- User ID: 439325467918

AWS Certification Account

- [AWS Certification Website](#)
- **Username:** pramod.jingade@gmail.com
- **Password:** zuko2352
- Course Links
 - [AWS Cloud Practitioner Essentials \(Second Edition\)](#)

NOTE: Online AWS Course presented by "Kirstin Duplat"

Course Objectives

In this course, you will learn how to:

- Define what the cloud is and how it works
- Differentiate between cloud computing and deployment models
- Describe the AWS Cloud value proposition
- Describe the basic global infrastructure of the cloud
- Compare the different methods of interacting with AWS
- Describe and differentiate between AWS service domains
- Describe the Well-Architected Framework
- Describe basic AWS Cloud architectural principles
- Explain the Shared Responsibility model
- Describe security services with the AWS cloud
- Define the billing, account management, and pricing models for the AWS platform


About CCP

- Costs: ~\$100 USD
- Duration: 90 minutes
- Questions: 65 Questions
 - Multiple choice - radio buttons
 - Multiple reasons - checkbox
- Passing Score: 70%
- Validity: Valid for 3 years

During Proctured Examination

- The Examiner will ask you to rotate your laptop / camera 360 degrees
- Wearing Smart watches not allowed
- Examiner might request to show hands

Who is the CCP for ?

- Learning AWS foundational knowledge
- Shows you've poked around & can use the AWS console
-  Focuses on billing & business-centric concepts
- Commonly obtained by sales & management to help inform VP & CEOs reasons to utilize AWS.

CONS - What value does CCP hold ?

- Not a gilded title
- Can help superficially increase your **AWS Certification** count
- [NOT recognised as an important certification for developers on their resumé](#)s

PROS - What value does CCP hold ?

- CCP builds confidence for future exams
- It's an easy win & a confidence booster
- To become familiar with your test centre
- Mitigate unknown conditions that can cause stress or distractions for future exam
- DIRECTLY prepare for [AWS Solution Architect Associate](#)

CCP Exam Guide Outliner

- Cloud Concepts : 28%
- Security: 24%
- Technology: 36%
- Billing & Pricing: 12%

Introduction

Scalability in Cloud Computing

In cloud computing the term - *Scalability* means the ability to resize your resources as necessary

By using **AWS Cloud Formation**, you have access to consistent, template based environment for development, test & production.

3 factors to influence agility

The 3 main factors that influence agility are:

- Increasing speed
- Ease of experimentation
- Cultivating a culture of innovation

Elasticity in Cloud Computing

Elasticity is the power to scale computing resources up or down easily. Because AWS cloud compute elastic, it can auto-scale easily

How you reduce security risks ?

Test often, Patch quickly & respond to incidents at Lightning speeds

Reliability

Ability of a system to recover from Infrastructure or Service failures. In CC, reliability means to demand & mitigate service disruptions.

- Must have well-planned foundations
- Reducing uncertainty to forecast system needs
- AWS regions, called Availability Zones - isolated location across demographics
- Fault tolerance - System can remain operational even if some of the components of the system fail
- High availability - Always functioning and available, minimum downtime

Security of Cloud Computing

- Customers are in complete control & ownership of their data, which includes
 - which region to store data in
 - how encryption is handled
 - who holds the encrypted keys
 - monitor IT resources continually

Module 01 - AWS Management Interfaces


Explore convenient options of accessing & using AWS resources

AWS Users can create & manage resources in 3 unique ways

- AWS Management Console (includes Mobile App) - **Console**
- AWS Command Line Interface - **AWS CLI**
- AWS Software Development Kits - **AWS SDK**

AWS MANAGEMENT CONSOLE	AWS COMMAND LINE INTERFACE	AWS SOFTWARE DEVELOPMENT KIT
Navigation	Programming Language agnostic	Ability to use AWS in existing applications
Usability	Flexibility to create scripts	
Mobile app (for iOS & Android)		

Knowledge Check

- Which of the following terms refers to - the power to scale computing resources up or down easily?
 - Elasticity 

Module 02 - AWS Management Interfaces

01 - EC2 - Elastic Compute Cloud

AWS EC2 **Instances** are used to spin up servers which can be accessed via Security protocols like - SSH, TCP, HTTP

In AWS compute is consumed through the **Elastic Compute Cloud (EC2)** which is a web service from which you can launch "instances" which are essentially VMs running on the AWS KVM (Kernel based Virtual Machine) hypervisor.

- pay as you go
- a broad selection of Hardware & Software
- available across global locations
- Software - Amazon Machine Image **AMI**
- Network - Amazon Virtual Private Cloud **VPC**

02 - EBS - Elastic Block Store

Most EC2 instance types use the **Elastic Block Store (EBS)** for persistent storage. EBS volumes are durable, block-level storage volumes that can be attached to a single EC2 instance.

There are a several different volume types available that differ in performance characteristics and price. These include:

- General Purpose SSD (gp2)

- Provisioned IOPS SSD (io1)
- Throughput Optimized HDD (st1)
- Cold HDD (sc1)
- Magnetic (standard, a previous-generation type)

Each EBS volume is replicated across multiple systems within an Availability Zone (described below) to avoid the risk of data loss if a single hardware component fails. Additionally, users can take **snapshots** of their EBS volumes which are a point-in-time copy of the data.






Snapshots are incremental backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved.

to attach and mount an EBS storage to an EC2 instance

```
# list block storages
lsblk
# mount
sudo mount /dev/xvdb /mnt
```

Knowledge Check

What are the benefits of using Amazon EC2 instances compared to physical servers in your infrastructure (select two) ?

- The ability to have different storage requirements 
- Pay only for the capacity you use 
- Automated Backups 
- Resizable 
- The ability to hot-add additional RAM 

Domain 01 - Cloud Computing

- [Youtube Link - Freecodecamp](#)

Objectives

By the end of this lesson you should

- Define AWS cloud & its value proposition
- Identify different aspects of AWS cloud economics
- List the different cloud architecture design principles

What is Cloud Computing ?

- The practice of using a network of remote servers hosted on the Internet to store, manage & process data, rather than a local server or a personal computer.
- Online delivery of IT Solutions & IT Infrastructure over the internet
 - Scalability
 - Low Cost
 - Reduce Risks
 - Reliable Coverage during disaster
 - Secure data
 - Less time focusing on Infrastructure (Automation)
 - 24/7 availability
 - Auto scaling or elastic

ON-PREMISE	CLOUD PROVIDERS
You own the servers	Someone else owns the servers
You hire the IT people	Someone else hires the IT people
You pay or rent the real-estate	Someone else pays or rents the real-estate (called Data-centres)
You take all the risk	You are only responsible for configuring cloud services & code, someone else takes care of the rest

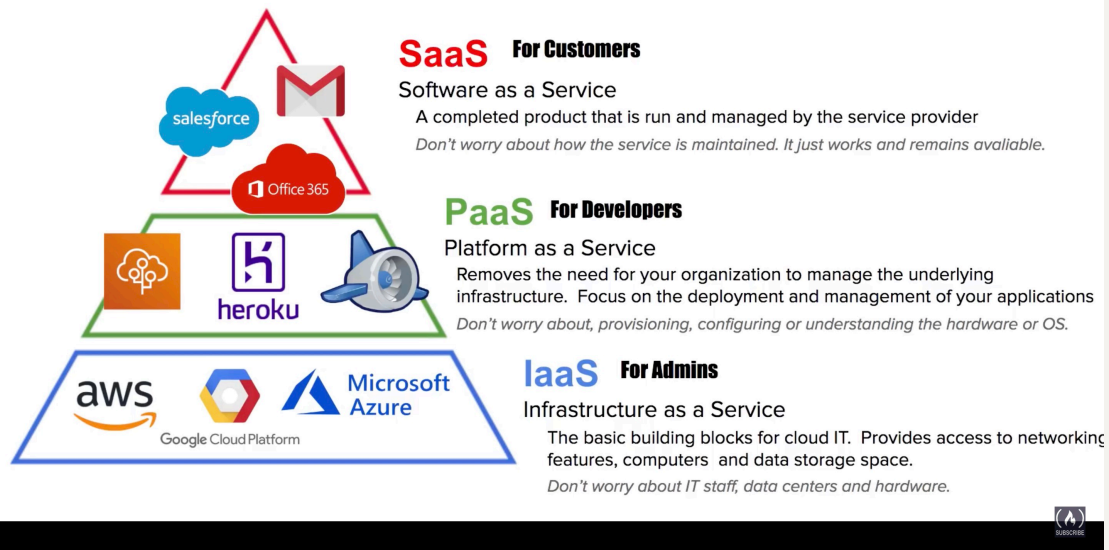
Advantages of Cloud Computing

- [6 Advantages of Cloud Computing](#)
 1. Trade capital expense for variable expense
 2. Benefit from massive economies of scale
 3. Stop guessing the capacity
 4. Increase speed & agility
 5. Stop spending money on running & maintaining data centres
 6. Go global in minutes

Types of Cloud Computing



Types of Cloud Computing



Cloud Computing - Deployment Models

- **Cloud** - Services fully available on cloud - Eg: Twilio, Dropbox, Squarespace 😊
 - Extremely low-cost compared to the other two
 - For Startup companies
 - Geographically available based on zones/regions
- **Hybrid** - Using both cloud & on-premise - Eg: Frozen Mountain 😊
 - Ability to deploy on customer location / host online
 - Flexible
 - Eg: Insurance companies
- **On-Premise** - Deploying resources on-premise of the vendor / customer - Eg: Philips 😊
 - Regulations
 - Private IP
 - Firewall restrictions
 - Public Sector
 - Super sensitive data
 - Eg: Government, Medical Hospitals