

CompTIA Cloud+ (CV0-004)

Prepare for the CompTIA Cloud+ (CV0-004) with expert-led training in cloud security, IAM, cost optimization, and hybrid cloud operations. This associate-level course is designed for sysadmins and IT pros transitioning to cloud roles. Learn how to deploy and manage cloud infrastructure, support multi-cloud environments, and apply vendor-neutral best practices. Build the skills employers want and get ready to pass the Cloud+ certification exam.

[CBT Nuggets course material](#) →

WEEK 1

Getting Started with Cloud+

- About the Cloud+ Certification
- Course Structure
- Vendor Agnostic or Vendor Specific?
- Getting Stuff Done in the Cloud
- Creating an AWS Account
- Creating an Azure Account
- Validation

Cloud Catalysts

- Skill Introduction
- Enabling MFA for our Root Account
- Setting the Stage for the Cloud
- Key Cloud Enablers
- Cloud Provider Networks
- Walkthrough
- Validation

Cloud Economics

- Skill Introduction
- Cost and Value
- Capital Expense Models
- Operational Expense Models
- Total Cost of Ownership
- Setting Up a Budget Alert
- Common Cloud Pricing Models
- Pricing Tool Comparisons
- Validation

WEEK 2

Identity and Access Management

Skill Introduction
Security Dimensions
The Shared Responsibility Model
Identity and Access Management
Authentication Methods
Authorization Concepts
Creating our IAM Account
IAM Policy Simulator
Quick Azure IAM Tour
Validation

Storage Options in the Cloud

Skill Introduction
The Business Case for Cloud Storage
Object Storage
Network Storage
Block Storage
Data Transfer Options
Enabling CloudTrail
Azure Blob Storage Tour
Validation

Cloud Networking Basics

Skill Introduction
How the Internet Communicates
NAT and IPv6
Subnets and Subnet Masks

Connecting to the Cloud
Creating a VPC and Subnets in AWS
Creating a VNet and Subnets in Azure

WEEK 3

Validation

Getting Started with Cloud Compute

Skill Introduction
Virtual Machines
Instance Types
Instance Type Selection
Our First Cloud VM
Preparing our VPC
Launching our EC2 Instance
Logging In
Shutting Everything Down
Validation

More Cloud Networking and Services

Skill Introduction
Cloud Routing Concepts
VPC Connectivity
The OSI Model
Networking Terms
Load Balancers
Our Load Balancer Landscape
Security Group Configuration
Web Server Deployment

Load Balancer Setup

Teardown

Validation

Scalability in the Cloud

Skill Introduction

Types of Scaling

Factors for Scaling

Common Types of Scaling Profiles

WEEK 4

Our Autoscaling Project

Setting Up Our Load Balancer (Again)

Configuring Our Web Server

Base Image, Launch Template and Autoscaling Group

Stressing our Lone Web Server

Teardown

Validation

Containerization in the Cloud

Skill Introduction

Introducing Containers

Containers vs. Virtual Machines

Let's Containerize

Our Container Project

Will It Quake? AWS Edition

Will It Quake? GCP Edition

Validation

Serverless Cloud Options

Skill Introduction

Serverless Origin Story

Loosely Coupled Architectures

Pros and Cons of Serverless

Our Serverless Project

AWS Lambda and API Gateway

IBM Cloud Functions

Validation

Database Options in the Cloud

Skill Introduction

WEEK 5

Why Managed Services?

Relational Databases

NoSQL Databases

Other Specialized Databases

Creating a DynamoDB Table

Lambda IAM Role

Dad Joke Writing Lambda Function

Querying our Joke Database

Validation

ML and Analytics in the Cloud

Skill Introduction

The AI Multiverse

Cloud Analytics

Cloud Service Comparisons

Exploring AWS AI Services
BaconGPT Design
Preparing our Bacon Data
Creating our Knowledge Base
Indexing our Data
The Moment of Truth
Teardown
Validation

Resiliency in the Cloud

Skill Introduction
Resiliency
Backup Strategies
Snapshots and Lifecycle Management
RPO and RTO
Disaster Recovery Strategies
Our Backup Project
Setting up a Backup Process
Testing our Restore Process
Teardown
Validation

Cloud Migrations

Skill Introduction
Cloud Deployment Models
Cloud Migration Strategies
Our Migration Challenge
Building Our Server VM
Preparing the Import Role

WEEK 6

Importing Our VM

Running Our VM in EC2
Logging In Two Ways
Exporting Our AMI
Running Our Exported VM
Validation

Developing in the Cloud

Skill Introduction
Acronym Fiesta!
Source Code Control
Feature Flags
Our Code Pipeline Design
Creating Our Repository
Creating Our Security Roles
Building Our Web Server
Creating Our Deployment Process
Automating Deployment
Teardown
Validation

Infrastructure as Code (IaC) Basics

Skill Introduction
Infrastructure as Code
How IaC Works
Drift
Our IaC Pipeline

Creating our Template

Building our Pipeline

Drift Detection

Scaling Things Up

Validation

Deployments in the Cloud

Skill Introduction

Big Bang Deployments

Blue/Green, Canary, and A/B Deployments

Rolling Deployments

Deployment Dangers

Our Deployment Task

Initial Setup

WEEK 7

Setting up A/B Testing

Pushing Updates and Rolling Back

Teardown

Validation

Logging and Observability in the Cloud

Skill Introduction

The Observability Universe

Our Project

Creating the S3 Bucket

Building our Lambda Function

Configuring a CloudWatch Alarm

Setting up a CloudWatch Dashboard

Testing and Observation

Investigating the Trace

Teardown

Validation

Data Management in the Cloud

Skill Introduction

What is Data Management?

Governance and Compliance

Data Stewardship

Data Classification and Encryption

Data Retention

Our Project

Creating Our DynamoDB Stores

Building Our Lambda Processor

Testing It Out

Teardown

Validation

Security in the Cloud

Skill Introduction

Cloud Security Dimensions

Vulnerability Management

WEEK 8

Our Project

Preparing the Network

Creating Our Instance

Install and Configure T-POT

Analyzing the Results

Teardown

Validation