

# CompTIA Cloud+ (CV0-003)

## Structured technical training and certification preparation

A practical, student-friendly outline covering compTIA Cloud+ CV0-003 Course Overview, general Cloud Knowledge, cloud Security, cloud Deployment, and operati...

### MODULES

7

### LESSONS

131

### FORMAT

Self-paced

## Module Breakdown

### MODULE 1

#### CompTIA Cloud+ CV0-003 Course Overview

- 1.0 Course Trailer
- 1.1 Course Overview
- 1.2 What is the Cloud + Exam
- 1.3 Cloud + Domain Objectives Overview
- 1.4 CompTIA Certification Pathways
- 1.5 DoD and ISO Requirements

### MODULE 2

#### General Cloud Knowledge

- 2.1 Domain Overview
- 2.2 Compare and Contrast Cloud Models
- 2.3 Cloud Computing Defined
- 2.4 Deployment Models
- 2.5 Service Models
- 2.6 Cloud Characteristics
- 2.7 Cloud Roles
- 2.8 Evaluate Cloud Providers and Services
- 2.9 Regions and Zones
- 2.10 Shared Responsibility Model
- 2.11 Demonstration - AWS Shared Security Model
- 2.12 Comparing Cloud to Virtualization
- 2.13 Comparing Cloud to On Premises
- 2.14 What is a Virtual Machine
- 2.15 Demonstration - Deploy a Cloud VM (AWS EC2)
- 2.16 What is an API
- 2.17 Capacity Planning Factors
- 2.18 Licensing, Factors, Requirements and Planning

## Module Breakdown (continued)

<p><b>MODULE 2</b></p> <p><b>General Cloud Knowledge (continued)</b></p> <ul style="list-style-type: none"> <li>2.19 Capacity Planning</li> <li>2.20 Demonstration - AWS Trusted Advisor</li> <li>2.21 HA and Scaling</li> <li>2.22 High Availability and Disaster Recovery</li> <li>2.23 Virtual, System and Communication Protection</li> <li>2.24 Hypervisor Affinity</li> <li>2.25 Analyze the solution design</li> <li>2.26 Business Requirements</li> <li>2.27 Business Enablers</li> <li>2.28 Demonstration -AWS Well Architected Tool</li> <li>2.29 Testing Techniques</li> <li>2.30 Testing Success Factors</li> <li>2.31 Module Review Questions</li> <li>2.32 Module Summary Review</li> </ul>	<p><b>MODULE 3</b></p> <p><b>Cloud Security</b></p> <ul style="list-style-type: none"> <li>3.1 Domain Overview</li> <li>3.2 Configure Identity and Access Management</li> <li>3.3 Identification and Authorization Management (IAM)</li> <li>3.4 SDLC</li> <li>3.5 Directory Services</li> <li>3.6 Security and Access Controls</li> <li>3.7 Federation</li> <li>3.8 SSO and MFA</li> <li>3.9 Certificates and Key Management</li> <li>3.10 Secure a Network in a Cloud Environment</li> <li>3.11 Networking Devices and Segmentation</li> <li>3.12 Firewalls and Proxies</li> <li>3.13 NAT and PAT</li> <li>3.14 Secure Network Configurations (Tunnelling and Encryption)</li> <li>3.15 Demo Hardening and Configuration Changes</li> <li>3.16 OS Application Controls and Security Credentials</li> <li>3.17 Policies and Permissions</li> </ul>
<p><b>MODULE 3</b></p> <p><b>Cloud Security (continued)</b></p> <ul style="list-style-type: none"> <li>3.18 Host and Network Protections (HIDSIPS)</li> <li>3.19 Virtualization Security</li> <li>3.20 Monitoring</li> <li>3.21 Data Security and Compliance Controls in Cloud Environments</li> <li>3.22 Structured, Unstructured and Semi Structured Data</li> <li>3.23 Data Classification and Labeling</li> <li>3.24 Data Loss Prevention</li> <li>3.25 Demonstration - Google Cloud DLP</li> <li>3.26 Chain of Custody and Non-Repudiation</li> <li>3.27 Discussion - CASB</li> <li>3.28 Module Summary Review</li> <li>3.29 Module Review Questions</li> </ul>	<p><b>MODULE 4</b></p> <p><b>Cloud Deployment</b></p> <ul style="list-style-type: none"> <li>4.1 Domain Overview</li> <li>4.2 Integrate Components into Cloud Solutions</li> <li>4.3 Subscription Services</li> <li>4.4 Demonstration - Provision VM</li> <li>4.5 Cloud Infrastructure Components</li> <li>4.6 Whiteboard - Design a Resilient AWS Cloud Architecture</li> <li>4.7 Containers</li> <li>4.8 Microservices</li> <li>4.9 Demonstration - Deploy Containers</li> <li>4.10 Scaling</li> <li>4.11 Provision Storage</li> <li>4.12 Cloud Storage Protocols</li> <li>4.13 Storage Features</li> <li>4.14 Storage Cost Considerations</li> <li>4.15 Storage Performance</li> <li>4.16 RAID and Tiering</li> <li>4.17 Demonstration - AWS S3</li> </ul>

## Module Breakdown (continued)

<p><b>MODULE 4</b></p> <p><b>Cloud Deployment (continued)</b></p> <ul style="list-style-type: none"> <li>4.18 Deploy Cloud Networking Solutions</li> <li>4.19 Connecting to The Cloud</li> <li>4.20 Network Protocols</li> <li>4.21 VPNS, VPC and Connectivity</li> <li>4.22 Whiteboard - AWS VPC Connectivity</li> <li>4.23 Demonstration - AWS VPC</li> <li>4.24 Software Defined Networking (SDN)</li> <li>4.25 Compute Sizing</li> <li>4.26 Virtualization Considerations</li> <li>4.27 Resource Rightsizing (CPU, Memory, etc)</li> <li>4.28 Module Summary Review</li> <li>4.29 Module Review Questions</li> </ul>	<p><b>MODULE 5</b></p> <p><b>Operations and Support</b></p> <ul style="list-style-type: none"> <li>5.1 Domain Overview</li> <li>5.2 Logging Monitoring and Alerting</li> <li>5.3 Logging, Storage and Analysis of Data Events</li> <li>5.4 Monitoring Cloud Resources</li> <li>5.5 Service Level Agreements</li> <li>5.6 Demonstration - SLAs in AWS</li> <li>5.7 Maintain Efficient Operations of a Cloud Environment</li> <li>5.8 Lifecycle Management</li> <li>5.9 Change and Asset Management</li> <li>5.10 SOP, Patching and Upgrades</li> <li>5.11 Orchestration and Automation</li> <li>5.12 Orchestration or Automation</li> <li>5.13 DevOps, IaC and CICD Pipelines</li> <li>5.14 Playbooks and Templates</li> <li>5.15 Backup and Restore Operations</li> <li>5.16 Backup Types, Objects, Targets</li> <li>5.17 Restore and Recovery</li> <li>5.18 Module Summary Review</li> </ul>
<p><b>MODULE 5</b></p> <p><b>Operations and Support (continued)</b></p> <ul style="list-style-type: none"> <li>5.19 Module Review Questions</li> </ul>	<p><b>MODULE 6</b></p> <p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>6.1 Domain Overview</li> <li>6.2 Troubleshooting Methodology Intro</li> <li>6.3 Troubleshooting Methodology</li> <li>6.4 Troubleshoot Security Issues</li> <li>6.5 Cloud Attacks</li> <li>6.6 Security Groups and NACLs</li> <li>6.7 Troubleshoot Deployment Issues</li> <li>6.8 Discussion Site Connectivity Issues</li> <li>6.9 Discussion - Capacity Issues</li> <li>6.10 Connectivity Issues</li> <li>6.11 Connectivity Troubleshooting Tools</li> <li>6.12 Demonstration - GCP AWS Azure Latency Test</li> <li>6.13 Module Summary Review</li> <li>6.14 Module Review Questions</li> </ul>
<p><b>MODULE 7</b></p> <p><b>Course Closeout</b></p> <ul style="list-style-type: none"> <li>7.1 Exam Preparation</li> <li>7.2 Course Closeout</li> </ul>	