

CompTIA® Cloud+® (Exam CV0-002)

General:

While IT professionals today are expected to understand some basic cloud terminology and concepts, and have likely worked with public cloud or Software-as-a-Service solutions, the ability to analyze, evaluate, design, and test cloud computing solutions are hard skills to find, and are in high demand. In this course, you will apply the skills required to evaluate and implement standard deployments. You will implement, maintain, and deliver cloud technologies including network, storage, and virtualization technologies to create cloud solutions. You will manage workload migrations, manage cloud vendors to control costs, use automation and orchestration to bring business value from cloud solutions, and ensure security of cloud implementations through the use of cybersecurity best practices. In addition, this course prepares you to pass the CompTIA® Cloud+® exam and earn the corresponding certification.

Objectives:

In this course, you will deploy, test, secure, manage, optimize, and troubleshoot a cloud solution.

You will:

- Prepare to deploy cloud solutions.
- Deploy a pilot project.
- Test a pilot project deployment.
- Design a secure network for cloud deployment.
- Determine CPU and memory sizing for cloud deployments.
- Determine storage requirements for cloud deployments.
- Plan Identity and Access Management for cloud deployments.
- Analyze workload characteristics to ensure successful migration to the cloud.
- Secure systems to meet access requirements.
- Maintain cloud systems.
- Implement backup, restore, and business continuity measures.
- Analyze cloud systems for required performance.
- Analyze cloud systems for anomalies and growth forecasting.
- Troubleshoot deployment, capacity, automation, and orchestration issues.
- Troubleshoot connectivity issues.
- Troubleshoot security issues.

Audience:

This course is designed for IT professionals who wish to develop cloud computing skills to enable them to move IT workloads to the cloud and integrate products and services from different providers and industries. Their focus is to ensure that cloud deployments are secure, that automation and orchestration are used effectively to bring business value from the cloud, and that costs are controlled through effective management of cloud vendors.

This course is also designed for students who are preparing to take the CompTIA Cloud+ certification exam CV0-002, or who plan to use Cloud+ as the foundation for more advanced cloud certifications or career roles.

Prerequisites:

To ensure your success in this course, you should have 24-36 months' experience with IT networking, network storage, and data center administration. You should also have familiarity with any major hypervisor technologies for server virtualization, basic knowledge of common cloud service models, and common cloud deployment models.

Duration:

Five (5) days including classroom lecture and lab sessions.

Course Content

Lesson 1: Preparing to Deploy Cloud Solutions

Topic A: Describe Interaction of Cloud Components and Services

Topic B: Describe Interaction of Non-cloud Components and Services

Topic C: Evaluate Existing Components and Services for Cloud Deployment

Topic D: Evaluate Automation and Orchestration Options

Topic E: Prepare for Cloud Deployment

Lesson 2: Deploying a Pilot Project

Topic A: Manage Change in a Pilot Project

Topic B: Execute Cloud Deployment Workflow

Topic C: Complete Post-Deployment Configuration

Lesson 3: Testing Pilot Project Deployments

Topic A: Identify Cloud Service Components for Testing

Topic B: Test for High Availability and Accessibility

Topic C: Perform Deployment Load Testing

Topic D: Analyze Test Results

Lesson 4: Designing a Secure and Compliant Cloud Infrastructure

Topic A: Design Cloud Infrastructure for Security

Topic B: Determine Organizational Compliance Needs

Lesson 5: Designing and Implementing a Secure Cloud Environment

Topic A: Design Virtual Network for Cloud Deployment

Topic B: Determine Network Access Requirements

Topic C: Secure Networks for Cloud Interaction

Topic D: Manage Cloud Component Security

Topic E: Implement Security Technologies

Lesson 6: Planning Identity and Access Management for Cloud Deployments

Topic A: Determine Identity Management and Authentication Technologies

Topic B: Plan Account Management Policies for the Network and Systems

Topic C: Control Access to Cloud Objects

Topic D: Provision Accounts

Lesson 7: Determining CPU and Memory Sizing for Cloud Deployments

Topic A: Determine CPU Size for Cloud Deployment

Topic B: Determine Memory Size for Cloud Deployment

Lesson 8: Determining Storage Requirements for Cloud Deployments

Topic A: Determine Storage Technology Requirements

Topic B: Select Storage Options for Deployment

Topic C: Determine Storage Access and Provisioning Requirements

Topic D: Determine Storage Security Options

Lesson 9: Analyzing Workload Characteristics to Ensure Successful Migration

Topic A: Determine the Type of Cloud Deployment to Perform

Topic B: Manage Virtual Machine and Container Migration

Topic C: Manage Network, Storage, and Data Migration

Lesson 10: Maintaining Cloud Systems

Topic A: Patch Cloud Systems

Topic B: Design and Implement Automation and Orchestration for Maintenance

Lesson 11: Implementing Backup, Restore, Disaster Recovery, and Business Continuity Measures

Topic A: Back Up and Restore Cloud Data

Topic B: Implement Disaster Recovery Plans

Topic C: Implement Business Continuity Plans

Lesson 12: Analyzing Cloud Systems for Performance

Topic A: Monitor Cloud Systems to Measure Performance

Topic B: Optimize Cloud Systems to Meet Performance Criteria

Lesson 13: Analyzing Cloud Systems for Anomalies and Growth Forecasting

Topic A: Monitor for Anomalies and Resource Needs

Topic B: Plan for Capacity

Topic C: Create Reports on Cloud System Metrics

Lesson 14: Troubleshooting Deployment, Capacity, Automation, and Orchestration Issues

Topic A: Troubleshoot Deployment Issues

Topic B: Troubleshoot Capacity Issues

Topic C: Troubleshoot Automation and Orchestration Issues

Lesson 15: Troubleshooting Connectivity Issues

Topic A: Identify Connectivity Issues

Topic B: Troubleshoot Connectivity Issues

Lesson 16: Troubleshooting Security Issues

Topic A: Troubleshoot Identity and Access Issues

Topic B: Troubleshoot Attacks

Topic C: Troubleshoot Other Security Issues

Appendix A: Taking the Exams

Appendix B: Mapping Course Content to the CompTIA® Cloud+® Exam CV0-002