COMPTIA CLOUD+

Course Duration: 5 days; Instructor-led

WHAT YOU WILL LEARN
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.

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.

METHODOLOGY
This program will be conducted with interactive lectures, PowerPoint presentation, discussion and practical exercise.

COURSE 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.

COURSE OUTLINES

Module 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

Module 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

Module 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

Module 4: Designing a Secure and Compliant Cloud Infrastructure
- Topic A: Design Cloud Infrastructure for Security
- Topic B: Determine Organizational Compliance Needs

Module 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

Module 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

Module 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

Module 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

Module 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

Module 10: Maintaining Cloud Systems
- Topic A: Patch Cloud Systems
- Topic B: Design and Implement Automation and Orchestration for Maintenance

Module 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

Module 12: Analyzing Cloud Systems for Performance
- Topic A: Monitor Cloud Systems to Measure Performance
- Topic B: Optimize Cloud Systems to Meet Performance Criteria

Module 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

Module 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

Module 15: Troubleshooting Connectivity Issues
- Topic A: Identify Connectivity Issues
- Topic B: Troubleshoot Connectivity Issues

Module 16: Troubleshooting Security Issues
- Topic A: Troubleshoot Identity and Access Issues
- Topic B: Troubleshoot Attacks
- Topic C: Troubleshoot Other Security Issues