Course Outline

Cloud Technology Associate

Course Cloud Tech Assoc: 2 days Instructor Led

About this course

The CCC Cloud Technology Associate™ certification demonstrates that participants have the basic skill set and knowledge associated with cloud and virtualization. This certification is a critical step to advance your career as organizations look for qualified Cloud Technology Associates. The certification allows IT professionals to operate effectively in a cloud environment as they can demonstrate an understanding of the cloud key concepts and its relevant terminology. Furthermore, it provides the foundation needed to successfully complete subsequent vendor-specific training/ certification programs and also provides a baseline for the subsequent CCC Professional level certifications.

Audience profile

- IT Specialists (Analysts, Developers, Architects, Testing, etc.)
- IT Administrators (System, Database, etc.)
- IT Provisioning and Maintenance (Hardware, Network, Storage, etc.)
- IT Managers
- IT Project Managers and Others (Sales, Purchase, Audit, Legal, etc.)

At course completion

After completing this course, students will be able to:

- Identify the fundamental concepts of cloud computing and virtualization.
- Identify the technical challenges and the mitigation measures involved in cloud computing and virtualization.
- Understand the latest digitization trends associated with cloud computing.
- Define cloud security and identify the risks involved in cloud computing as well as the risk mitigation measures.
- List the steps to successfully adopt cloud services.

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MODULE 1: COURSE INTRODUCTION

At the end of this module, you will be able to:

- Identify the fundamental concepts of cloud computing and virtualization.
- Identify the technical challenges and the mitigation measures involved in cloud computing and virtualization.
- Understand the latest digitization trends associated with cloud computing.
- Define cloud security and identify the risks involved in cloud computing as well as the risk mitigation measures.
- List the steps to successfully adopt cloud services.

MODULE 2: INTRODUCTION TO CLOUD SERVICES MODEL

At the end of this module, you will be able to:

- List the challenges and concerns for traditional computing methodology.
- Define NIST's and Gartner's definition of cloud computing.

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- Explain the evolution of cloud computing and list the cloud's essential characteristics, service models, and deployment models.
- Define NIST's cloud Taxonomy (service provider versus consumer responsibility model) and Cloud Actors (service providers, consumers, auditors, carriers, brokers).
- Distinguish between traditional and cloud computing models in terms of business value.
- List the cloud computing benefits and its challenges.
- Define the various common cloud terminologies used in cloud computing.

MODULE 3: INTRODUCTION TO VIRTUALIZATION: THE BACKBONE TECHNOLOGY OF CLOUD COMPUTING

At the end of this module, you will be able to:

- Understand the definition, history, and fundamental concepts of virtualization including the relationship between virtualization and cloud computing.
- Understand the benefits, challenges, risks, and suitability of virtualization to organizations.
- Understand what a hypervisor is, its role in virtualization, and different types of hypervisors.
- Identify leading hypervisor manufacturers and service providers who use them.
- Understand various virtualization terminologies.
- Understand briefly about various types of virtualization (server, storage, network, desktop, application).

MODULE 4: THE ROLE OF CLOUD AND OTHER TECHNOLOGIES IN DIGITAL TRANSFORMATION

At the end of this module, you will be able to:

- Understand the concepts of Big Data and Big Data Analytics, Hadoop, NoSQL databases, and their characteristics and types.
- Explain what is Internet of Things (IoT) and its types.
- Explain how cloud computing and DevOps together.
- Understand the latest digitization trends in Artificial Intelligence (AI) and Machine Learning (ML).

MODULE 5: CLOUD SECURITY, RISK, COMPLIANCE AND GOVERNANCE

At the end of this module, you will be able to:

- Understand general definitions of IT security, risk and risk management.
- Understand the role of IT compliance and audits.
- Understand the impact of cloud essential characteristics, cloud service models, cloud deployment models on business value and risk.
- Identify common cloud attack vectors and remediating controls.

MODULE 6: PREPARING FOR CLOUD ADOPTION

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At the end of this module, you will be able to:

- Explain typical steps that lead to successful adoption of cloud computing services.
- Describe appropriate solution architectures for various service and deployment models.
- Understand organizational capabilities that are relevant for realizing cloud benefits.
- Understand the roles and capabilities of cloud computing providers, vendors and dependencies on vendors.
- Describe multiple approaches for migrating applications.