

uCertify

Course Outline

Cloud Computing For Beginners



30 Oct 2025

1. Exercises, Quizzes, Flashcards & Glossary

Number of Questions

2. Expert Instructor-Led Training

3. ADA Compliant & JAWS Compatible Platform

4. State of the Art Educator Tools

5. Award Winning Learning Platform (LMS)

6. Chapter & Lessons

Syllabus

Chapter 1: Preface

Chapter 2: Foundation of Cloud Computing

Chapter 3: Cloud Services and Deployment Models

Chapter 4: Cloud Computing Architecture

Chapter 5: Virtualization Technology

Chapter 6: Service oriented Architecture

Chapter 7: Cloud Security and Privacy

Chapter 8: Cloud Computing Applications

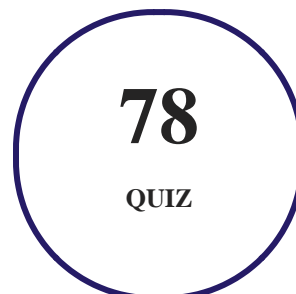
Chapter 9: Cloud Computing Technologies, Platforms and Services

Chapter 10: Adoption of Cloud Computing

Videos and How To

1. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



2. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

3. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

4. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

5. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been

recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform

2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

6. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Preface

Chapter 2: Foundation of Cloud Computing

- Introduction to cloud computing
- History of cloud computing

- Fundamentals of the cloud computing ecosystem
- Cloud computing characteristics
- Advantages and disadvantages of cloud computing
- Comparison of traditional and cloud computing paradigms
- Evaluating the cloud's business impact and economics
- Business drivers of cloud computing adoption
- Future of the cloud (FoC)
- Summary

Chapter 3: Cloud Services and Deployment Models

- Cloud deployment models
- Cloud Service Models
- Cloud infrastructure mechanisms
- Cloud service management
- Summary

Chapter 4: Cloud Computing Architecture

- Cloud computing architecture design principles
- Cloud computing life cycle (CCLC)

- Cloud computing reference architecture
- Load balancing approach
- Mobile cloud computing (MCC)
- Case study - Oracle cloud management
- Summary

Chapter 5: Virtualization Technology

- Understanding virtualization
- Adopting virtualization
- Techniques of virtualization
- How virtualization works?
- XEN
- Kernel-based virtual machine (KVM)
- VMware
- VirtualBox
- Citrix
- Types of Virtualization
- Virtualization in Cloud
- Summary

Chapter 6: Service oriented Architecture

- SOA foundation
- Web Services and SOA
- SOA communication
- SOA components
- SOA Infrastructure
- Need of SOA
- Business Process Management (BPM)
- Business Process Management Platform as a Service - BPM PaaS
- Business Process as a Service-BPaaS
- Summary

Chapter 7: Cloud Security and Privacy

- Cloud security
- Cloud CIA security model
- Cloud computing security architecture
- Service provider security issues
- Security issues in virtualization

- Cloud legal issues
- Performance monitoring and management of cloud services
- Legal issues in cloud computing
- Data security in cloud
- The cloud risk management framework
- Risk management process for cloud consumers
- Requirement for risk management in ISO/IEC 27001
- Data privacy risks in the cloud
- Business continuity and disaster recovery
- Threats in cloud
- Security techniques for threats protection
- Cloud service level agreements (SLA) practices
- Components of a cloud SLA
- Types of SLAs
- Cloud vendors
- Issues of Quality of Cloud Services
- Techniques for providing QoS to the cloud applications
- Migration of a local server into cloud

- Migration steps
- Trust management
- Summary

Chapter 8: Cloud Computing Applications

- Introducing cloud computing applications
- Google App Engine
- Google Apps
- Google Cloud Datastore
- Dropbox Cloud
- Apple iCloud
- Microsoft Windows Azure Cloud
- Amazon Web Services (AWS)
- Summary

Chapter 9: Cloud Computing Technologies, Platforms and Services

- High-performance computing with cloud technologies
- Message Passing Interface (MPI)
- MapReduce programming model

- Dryad and DryadLINQ
- Eucalyptus cloud platform
- Components of Eucalyptus
- OpenNebula cloud platform
- Layers of OpenNebula
- Features of OpenNebula
- OpenStack cloud platform
- OpenStack components
- Benefits of Open Stack
- Nimbus Cloud Computing Platform
- Features of Nimbus
- The Apache Hadoop ecosystem
- Summary

Chapter 10: Adoption of Cloud Computing

- Adoption of cloud computing in the current era Cloud computing in the IT industry
- Factors affecting cloud computing adoption
- Cloud computing existing areas of application
- Case studies

- Cloud computing certifications
- Summary

You can't stay away! Get

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