

# Cloud Computing Technologies Introduction

Course: 00040

Filter: **Beginner**

Duration: **20 hours**

Category:: **Cloud Computing**

Price: **2800,00 €**

## About Course

Cloud computing potentially affects every aspect of an organization's IT department. In this training course, you will evaluate and assess the business and technical benefits of cloud computing, gain the foundation to analyze cloud applications for use in your organization, and learn how cloud computing can provide efficient solutions to technical, business, and administrative challenges.

## What you'll learn

- Exploit the benefits of the different cloud service models: SaaS, PaaS, and IaaS
- Leverage services provided by the major public cloud providers
- Configure and provision resources on a private IaaS cloud
- Apply tips and best practices when adopting the cloud

## Materials included

- AWS and Google Applications are provided for your use during the course

## Pre-requisites

- Working knowledge of Internet technologies, Microsoft Windows and Web applications Programming experience
- A background with cloud computing is not required
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## Curriculum

### Module 1: Introduction to Cloud Computing

- Components of a computing cloud
- Differentiating types of clouds: public, private, hybrid
- Categorising service types
- Comparing vendor cloud products: Amazon, Google, Microsoft and others

### Module 2: Adopting the Cloud

- Instantaneous provisioning of computing resources
- Tapping into an infinite storage capacity
- Cost-effective pay-as-you-use billing models
- Handling sensitive data
- Aspects of cloud security
- Assessing governance solutions

### Module 3: Exploiting Software as a Service (SaaS)

- Streamlining administration with centralised installation
- Optimising cost and performance with scale on demand
- Improving collaboration with business productivity tools
- Simplifying business process creation by integrating existing components
- Deploying web applications
- Implementing web services: SOAP, REST
- Choosing a development platform

### Module 4: Delivering Platform as a Service (PaaS)

- Specifying the components of PaaS
- Analysing vendor PaaS provisions
- Selecting an appropriate implementation
- Evaluating the architecture of vendor-specific platforms
- Becoming familiar with service platform tools

- Controlling unstructured data in the cloud
- Deploying relational databases in the cloud
- Improving data availability
- Testing in the cloud
- Monitoring cloud-based services
- Analysing portability across platforms

### **Module 5: Deploying Infrastructure as a Service (IaaS)**

- Scalable server clusters
- Achieving transparency with platform virtualisation
- Elastic storage devices
- Provisioning servers on demand
- Handling dynamic and static IP addresses
- Tools and support for management and monitoring
- Leveraging an existing infrastructure
- Comparing OpenStack and Eucalyptus
- Managing resources across teams and departments
- Integrating with public clouds

### **Module 6: Building a Business Case**

- Comparing in-house facilities to the cloud
- Estimating economic factors downstream
- Selecting appropriate service-level agreements
- Safeguarding access to assets in the cloud
- Security, availability and disaster recovery strategies
- Rearchitecting applications for the cloud
- Integrating the cloud with existing applications
- Selecting a vendor and avoiding vendor lock-in