

Microsoft Azure: Infrastructure as a Service

Workshop*PLUS*

Turn industry challenges into your opportunity by differentiating yourself, and delighting your customers with Microsoft Azure and Infrastructure as a Service leveraged application platforms

Overview

Microsoft Azure is an internet-scale, high-availability cloud fabric operating on globally-distributed Microsoft data-centers. It and related tools support development and deployment of applications into a hosted environment that extends the on-premises data center. The Microsoft Azure Infrastructure as a Service (IaaS) platform can be leveraged to deploy existing and new application platforms composed of operating systems, applications, middleware, database servers, third-party components and frameworks, as well as internal and external networking configurations required for communications.

This **3 day workshop** provides architects, IT pros and developers with the knowledge and experience needed to make the initial architectural and development decisions about their use of Microsoft Azure IaaS. It consists of two main parts: classroom teaching and hands on experience introducing Microsoft Azure concepts and tools.

The course can also be customized to focus on the delivery of a particular application with the flexibility to augment the course with a consulting engagement involving architectural assistance or proof of concept development.

Key Features and Benefits

The course provides classroom presentation, class exercises and hands-on lab materials, which ensure that you quickly acquire knowledge and skills needed to design and develop Microsoft Azure applications. A number of technology-focused demos, as well as sample automations, augment the materials.

Technical Highlights

After completing this course, you will be able to:

- Relate the purpose of Microsoft Azure IaaS to your application requirements
- Architect applications based on Microsoft Azure
- Develop and deploy existing application platforms to Microsoft Azure

Syllabus

Prerequisites:

We expect the participants to have:

- General familiarity with cloud computing
- Understanding of multi-tiered application architectures (eg: front end, middleware, and back end software)
- General understanding of networking concepts (eg: IPv4, DNS, gateways, VPN)
- Access to Azure management environment
- Access to a subscription owner account

This workshop runs for **3 full days**. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Core Modules (Mandatory)

Microsoft Azure IaaS Overview

- Introduction to cloud computing
- Cloud services and scenarios
- Microsoft Azure Management Portal overview

Microsoft Azure Resource Manager (ARM)

- Describe the usage of ARM
- Details of ARM JSON code structure
- Discussion of Classic and V2 virtual machines

Microsoft Azure Storage

- Storage architecture & data services
- Discussion around the different types of storage
- Hybrid Storage with StorSimple

Microsoft Azure Virtual Machines

- Support for key server applications
- Provisioning patterns and approaches
- High availability features and VM sizes

Microsoft Azure Networking

- Virtual Machines and DNS
- Protocols and endpoints
- Cross-premise connectivity
- Virtual networking services

Elective Modules (Choose 2 Modules)

Microsoft Azure Identity

- Discussion about Microsoft Azure Active Directory
- Discussion about Azure B2B and B2C
- Discussion about Microsoft Azure Multi-Factor Authentication
- Discussion about Microsoft Azure Active Directory in IaaS

Microsoft Azure Management

- Microsoft Azure Portal management
- PowerShell Cmdlets for Microsoft Azure
- Management of VM's, Storage and Networking using PowerShell

Microsoft Azure Automation

- Discussion about Automation Runbooks
- Discussion about Automation Desired State Configuration

Microsoft Azure Backup

- Discussion about Azure Backup
- Discussion about Azure snapshot backup