

Course Details

Course 50466A

Windows Azure Solutions with
Microsoft Visual Studio 2010

Length: 3 Days

Published: July 27, 2011

Language(s): English

Audience(s): Developers

Level: 300

Technology: Windows Azure

Type: Course

Delivery Method: Instructor-led (classroom)

Prerequisites

Before attending this course, students must have:

- Experience with Visual Studio 2010 or better is required.
- Knowledge and experience in a .NET language (C# or VB) is required.
- Knowledge of ASP.NET is required.

Course Outline

Module 1: Cloud Computing

- Define cloud computing.
- Learn the benefits of cloud computing.
- Understand the different types of cloud computing services.
- Explore where computing clouds might exist.
- Hear about potential concerns with cloud computing.
- Learn where cloud computing can and cannot be applied.
- Place Windows Azure in light of general cloud computing.
- Know how Windows Azure compares to other cloud environments.

Module 2: Windows Azure Architecture

- See a simple Windows Azure application.
- Learn about the Microsoft data centers.
- Explore the hardware, servers and virtualization (the Fabric) that host cloud applications and data.
- Understand the role of the Fabric Controller in managing the Windows Azure cloud.
- Know the general architecture and components of the Windows Azure Platform.
- Understand the tools used to create and deploy Windows Azure services and data stores.
- Understand the different types of roles in Windows Azure (Web, worker, VM).
- Understand the types of storages provided by the Windows Azure Platform (Azure Storage, SQL Azure,)

Module 3: Windows Azure Web Roles

- Explore the purpose of Windows Azure Web roles.
- Understand how to create Web roles in a cloud service project.
- See how to configure a Web role.
- Learn how to test Web roles run in the Compute Emulator.
- Start exploring the Windows Azure API.
- Examine how to build Web roles with multiple Web sites.

Module 5: Windows Azure Administration

- Explore the various Windows Azure subscription administrators.
- Understand Windows Azure OS Families and Guest OS Versions.
- See how to Remote Desktop to a Windows Azure virtual machine.
- Learn how to define a startup task for a role..

Module 7: Blob Storage

- Understand the rationale for using blob storage. Learn about the different types of blobs: block and page blobs.
- Examine blob storage containers and how they are used to organize and control access to blobs.
- Explore how to access blob storage with both the Storage Client and REST API.

Module 4: Local Storage

- Examine Windows Azure local storage.
- See how local storage differs from normal server file systems.
- Learn how to configure local storage.
- Understand the limitations of local storage and where/when to use it.
- Explore the API to access local storage.
- Learn about Windows Azure Drive (formerly X-Drive).

Module 6: Windows Azure Storage and Queues

- Understand the purpose of Windows Azure Storage.
- Learn how to create a Windows Azure Storage account.
- Explore Windows Azure Storage costs.
- Understand the Storage Emulator, how to use it, and how it is different from Windows Azure Storage.
- See how to access Windows Azure Storage using both the REST API and the Storage Client Library.
- Examine Windows Azure Storage Queues.
- Learn how to get messages in and out of Windows Azure Queues.

Module 8: Table Storage

- Explore Windows Azure Storage's structural data service.
- Understand the reason for table storage.
- Examine the differences between table storage and traditional relational databases (as exhibited by SQL Azure).
- Learn how to access table storage with both the Storage Client and REST API.
- Understand entities as they relate to table storage.
- Examine how to save and retrieve entities in table storage.

Module 9: Worker Roles

- Explore the purpose of Windows Azure worker roles.
- Understand how to create worker roles in a cloud service project.
- See how to configure a worker role.
- Learn how to test worker roles run in the Compute Emulator.
- Learn how to use Windows Azure Storage queues and messages to communicate with worker roles.
- Explore how to setup worker role endpoints.
- Learn how to communicate with worker role internal and input endpoints.

Module 10: SQL Azure Introduction

- Learn what SQL Azure is and why you want to use it.
- Understand SQL Azure in comparison to SQL Server and Windows Azure table storage.
- Learn how to provision a SQL Azure server and databases.
- Examine costs associated with SQL Azure.
- See how to use familiar tools and APIs to work in SQL Azure.
- Explore how to create and manage database objects in SQL Azure.
- Know how to limit SQL Azure access.
- Understand options for performing database backups.
- See how to migrate data to SQL Azure.

Module 11: Diagnostics

- Learn how to accomplish debugging and logging in Windows Azure.
- Examine Windows Azure Diagnostic Service.
- Understand the role of the Diagnostic Agent process in the diagnostic service.
- Learn how to configure the diagnostic service.
- See how to transfer diagnostic data to Windows Azure Storage.