Course : Microsoft Azure, developing a Cloud application in .NET

Practical course - 3d - 21h00 - Ref. WAZ
Price : 2240 € E.T.

This training course will introduce you to Microsoft's Cloud platform, Windows Azure, its benefits and how it works. You'll learn how to use the tools and technologies available to develop applications and deploy them on this platform.

Teaching objectives

At the end of the training, the participant will be able to:

- Getting to grips with the Azure SDK in Visual Studio as part of Azure Compute
- Handling different types of storage with Azure Storage
- Database management with SQL Azure Database (creation, administration and consumption)
- Securing web applications and api with Azure Active Directory
- Building mobile backends with Azure Mobile Services

Intended audience

.NET developers (C# or VB.NET). Architects.

Prerequisites

Good knowledge of the .NET platform and a .NET development language (C# or VB.NET). Basic knowledge of Web application design and Web Services.

Practical details

Hands-on work
Practical exercises will teach you how to develop Web applications for Windows Azure.

Course schedule

1 Introduction to Cloud Computing and the Microsoft Azure platform

- Definitions and general information on Cloud Computing.
- Market players.
- Fundamentals of Cloud Computing.
- Vertical scaling versus horizontal scaling.
- Microsoft's answer: Windows Azure.

2 Microsoft Azure Compute

- Infrastructure and operating principle.
- IaaS versus PaaS, cloud or hybrid architecture?
- Cloud Services: Web Roles/Worker Roles.
- Web Sites/Web Jobs.
- Deployment locations: pre-production, test, production...
- Principles of Git and TFS deployment...
- Content Delivery Network.

Hands-on work
Getting to grips with the Azure SDK in Visual Studio. First website in Azure.

3 Microsoft Azure Storage

- Introduction and general information.
- Locally Redundant Storage, Zone Redundant Storage, Geo Redundant Storage...
- Different types of storage: Blobs, Tables, Queues, Files.
- Security with Shared Access Signatures.
- Valet Key pattern to offload servers.
- APIs and applications.

Hands-on work
Handling the different types of Windows Azure storage.

4 SQL Azure Database

- How Azure SQL Database works.
- Azure SQL Database vs SQL Server.
- Azure SQL Database administration.
- Azure SQL Database configuration.
- APIs and tools.

Hands-on work
Create, administer and consume data in Azure SQL Database.

5 Azure Active Directory

- Introduction to identity management in the cloud.
- IS integration.
- Securing Web applications and api with Azure Active Directory.
- Multi-factor authentication: SMS, telephone...
- Azure Active Directory Graph API.

Hands-on work
Implementation of Azure Active Directory authentication in an ASP.NET MVC application.

TEACHING AIDS AND TECHNICAL RESOURCES
• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES
Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES
Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6   Azure Service Bus

- Introduction and general information.
- The different Service Bus usage scenarios.
- Relay endpoints. Brokered messages.
- Push notifications.

Hands-on work

Service Bus and Web Jobs.

7   Azure Mobile Services

- Introduction and generalities.
- Comparing JavaScript and .NET.
- Scenarios covered by Azure Mobile Services.

Hands-on work

First mobile backend with Azure Mobile Services.

8   Overview of other Azure application services

- Search service. DocumentDB.
- Media Services.

Demonstration

Other Azure application services.