



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

9201 Dry Creek Rd. Centennial, CO 80112, United States

Email: arrow_learning@arrow.com
Phone: 303 790 2330



10978: Introduction to Azure for Developers

CODE:	LENGTH:	PRICE:
MS-10978	40 Hours (5 days)	\$2,695.00

Description

This course offers students the opportunity to take an existing ASP.NET MVC application and expand its functionality as part of moving it to Azure. This course focuses on developing in Azure using Storage, Cloud Services, Service Bus, Active Directory, WebSites and SQL among other features. This course also focuses on using the provided .NET SDKs, REST APIs, configuration and deployment options related to Azure.

Objectives

After completing this course, students will be able to:

Describe Azure and the capabilities that it provides to application developers. Students will also be able to use the Management Portal to effectively navigate the Azure platform and their deployed applications.

Use the Management Portal to create, modify, scale and dispose of Azure services. The students will also use alternative (PowerShell, REST) methods for managing Azure services.

Create and host a simple website using Azure Websites. Students will learn how to monitor and manage the website using the Management Portal.

Build a modular web application and host it using Azure Cloud Service Web Roles.

Use Cloud Service Worker Roles to process data in the background. Students will also be able to use Cloud Service Cache Roles to store data in the cache.

Use Azure SQL to store and retrieve data.

Store data in Azure Table Storage.

Store and access multimedia files in Azure using Blob Storage.

Use Azure Queue Storage to queue data for asynchronous processing. Students will also learn how to use Azure Service Bus Queues for queuing data.

Use the Azure Service Bus Relay to connect on-premise services with client applications.

Use Azure Service Bus Notification Hubs to publish messages to client applications.

Use Azure Active Directory to implement security in a Cloud web application.

Deploy web applications to Azure by using WebDeploy and Service Packages.

Use Azure Mobile Services to provide a scalable and secure web service for mobile applications.

Audience

The developers targeted by this training are web application developers who have 6-12 months of web development experience using ASP.NET and C#. Said developers are interested in deploying their ASP.NET applications to Azure, integrating the applications with the Azure services and using best practices to build a highly scalable application.

This course is intended for students who have the following experience:

6-12 months experience developing ASP.NET Web applications using C#

Prerequisites

ASP.NET web application development

C# application development

Resources used with enterprise web application development

Relational databases (SQL)

WCF services

Programme

Course Outline

Module 1: Overview of Azure

This module describes Azure and the capabilities that it provides to application developers. Students will also be able to use the Management Portal to effectively navigate the Azure platform and their deployed applications.

Lessons

Azure Overview

Working with the Azure platform

Cloud Application Scenarios

Lab : Exploring Azure

After completing this module, students will be able to describe Azure and the capabilities that it provides to application developers.

Module 2: Creating and Managing Services in Azure

This module describes how to use the Management Portal to create, modify, scale and dispose of Azure services. The students will also use alternative (PowerShell, REST) methods for managing Azure services.

Lessons

What is a Azure Service?

Software as a Service

Platform as a Service

Infrastructure as a Service

Lab : Managing Cloud Services in Azure

After completing this module, students will be able to use the Management Portal to create, modify, scale and dispose of Azure services. The students will also use alternative (PowerShell, REST) methods for managing Azure services.

Module 3: Managing Infrastructure in Azure

This module introduces the Azure infrastructure services and describes the features available to Virtual Machines hosted in Azure.

Lessons

Infrastructure in Azure

Azure Virtual Machines

Lab : Creating an Azure Virtual Machine for Development & Testing

After completing this module, students will be to describe Azure infrastructure services and the features available to Virtual Machines hosted in Azure.

Module 4: Creating Web Sites using Azure

In this module students will be able to create and host a simple website using Azure Websites. Students will also learn how to monitor and manage the website using the Management Portal.

Lessons

Azure Websites

Hosting Web Applications in Azure

Configuring an Azure Website

Publishing an Azure Website

Monitoring an Azure Website

Lab : Creating an ASP.NET Web site using Azure Websites

After completing this module, students will be able to create and host a simple website using Azure Websites.

Module 5: Creating Modular Web Applications Using Azure

In this module, students learn how to create a modular web application and host it using Azure Cloud Service Web Roles.

Lessons

What is a Cloud Service?

Cloud Service Web Roles

Configuring a Web Role

Monitoring a Web Role

Lab : Creating Azure Web Roles using Visual Studio 2013

After completing this module, students will be able to create a modular web application and host it using Azure Cloud Service Web Roles.

Module 6: Processing Background Logic Using Azure

In this module, students will be able to use Cloud Service Worker Roles to process data in the background. Students will also be able to use Cloud Service Cache Roles to store data in the cache.

Lessons

Cloud Service Worker Roles

Creating a Worker Role

Configuring a Worker Role

Caching Data Using Roles

Lab : Creating a Background Process Using Azure

After completing this module, students will be able to use Cloud Service Worker Roles to process data in the background.

Module 7: Storing SQL Data in Azure

In this module students will be able to use Azure SQL to store and retrieve data.

Lessons

What is Azure SQL?

Managing Servers And Databases in Azure SQL

Using Azure SQL with Data Tools

Migrating Data to Azure SQL

Using Azure SQL With Entity Framework

Lab : Storing Event Data in Azure SQL

After completing this module, students will be able to use Azure SQL to store and retrieve data.

Module 8: Storing non-relational data in Azure

In this module students will be able to use Azure Table storage to store and retrieve data.

Lessons

What is Azure Storage?

Azure Table Storage

Using the Azure SDK to Manipulate Data in Table Storage

Monitoring Table Storage

Using Table Storage in the Storage Emulator

Lab : Storing Event Registration Data in Azure Table Storage

After completing this module, students will be able to use Azure Table storage to store and retrieve data.

Module 9: Storing Files and Media in Azure

In this module, students will be able to store and access multimedia files in Azure using Blob Storage.

Lessons

Azure Blob Storage

Applying Permissions to Blob Storage

Using the Azure SDK to manipulate data in Blob Storage

Monitoring BLOB Storage

Using Blob Storage in the Storage Emulator

Lab : Storing Event Multimedia in Azure Blob Storage

After completing this module, students will be able to store and access multimedia files in Azure using Blob Storage.

Module 10: Storing Data in Queues Using Azure

In this module, students will use Azure Queue Storage to queue data for asynchronous processing.

Lessons

Overview of Queues in Azure

Azure Queue Storage

Using the Azure SDK to manipulate data in Queue Storage

Monitoring Queue Storage

What is Azure Service Bus?

Azure Service Bus Queues

Using the Azure SDK to Manipulate Data in Service Bus Queues

Lab : Using Queues to Manage Request Between Cloud Service Roles in Azure

After completing this module, students will use Azure Queue Storage to queue data for asynchronous processing.

Module 11: Relaying Web Services Using Azure

This module describes how to use the Azure Service Bus Relay to connect on-premise services with client applications.

Lessons

Service Bus Relay

Implementing Service Bus Relay

Lab : Connecting to a Cloud Web Application to an on-premise WCF Service

After completing this module, students will be able to use the Azure Service Bus Relay to connect on-premise services with client applications.

Module 12: Asynchronously Notifying Applications Using Azure

In this module, students will use Azure Service Bus Notification Hubs to publish messages to client applications.

Lessons

Azure Service Bus Notification Hubs

Registering Devices with a Notification Hub

Pushing Messages to a Notification Hub

Lab : Notifying a Windows Phone 8 Application Using Azure

After completing this module, students will be able to use Azure Service Bus Notification Hubs to publish messages to client applications.

Module 13: Implementing Security in Web Applications using Azure

In this module, students will learn how to use Azure Active Directory to implement security in a Cloud web application.

Lessons

Azure Active Directory

Azure AD Directory

Azure AD Access Control Service

Azure AD Multi-Factor Authentication Provider

Lab : Implementing Security in the Events Administration Portal

After completing this module, students will be able to use Azure Active Directory to implement security in a Cloud web application.

Module 14: Deploying Web Applications to Azure

In this module, students will learn how to deploy web applications to Azure by using WebDeploy and Service packages.

Lessons

Deployment Strategies for Azure Web Applications

Deploying Web Applications Using Cloud Service Packages

Deploying Web APPLICATIONS USING WEBDEPLOY

Monitoring Cloud Applications

Lab : Deploying the Events Web Application to Azure

After completing this module, students will be able to deploy web applications to Azure by using WebDeploy and Service Packages.

Module 15: Developing Mobile Services using Azure

In this module, students will be able to use Azure Mobile Services to provide a scalable and secure web service for mobile

applications.

Lessons

Azure Mobile Services

Communicating with Mobile Services

Customizing Mobile Services

Securing Mobile Services

Lab : Developing a Web Service for Mobile Clients Using Azure Mobile Services

After completing this module, students will be able to use Azure Mobile Services to provide a scalable and secure web service for mobile applications.

Session Dates

On request. Please [Contact Us](#)

Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)