

**Azure Integration Services**

**Course Number:** AZR-142  
**Duration:** 5 days

**Overview**

This Azure Integration Services training course teaches attendees how to build cloud-hosted integration solutions using Microsoft Azure. Attendees learn how to create enterprise-grade integration solutions using Logic Apps, the Azure App Service, the Enterprise Integration Pack, the Azure Service Bus, and custom API Apps. This Azure course includes a full-day workshop where attendees build a complete end-to-end integration.

**Prerequisites**

Attendees must be proficient with C# and have familiarity with ASP.NET, .NET MVC or Core, and Web API.

**Materials**

All Azure training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

We host the labs on our private cloud so there are no labs or images to install on the students/your hardware.

* Hardware: 2 GB RAM, 2 GHz CPU or greater, and 2 GB free disk space
* Software: Internet Explorer 6.0 or better, Firefox 2.0 or better (JavaScript and Java enabled), Safari 3.0 or better, Windows XP or better (including Server versions), and OS X 10.5 or better.
* Connectivity: Internet access, 1 Mbps Downstream / 512 Kbps Upstream minimum
* If you have firewall problems, please *talk to your IT Department as soon as possible* and reference the following connectivity guide: <http://www.gotoassist.com/iprange> and email: [email support@quicklearn.com](mailto:support@quicklearn.com?Subject=Firewall%20Trouble).

We also highly recommend that each student have two monitors.

Each student will need to set up a Microsoft Azure account and a Twilio account – both free. We provide instructions on how to do this a few days before the start of class.

**Objectives**

* Manage the Application Lifecycle using Azure Resource Groups
* Create Azure resources using the Azure Resource Manager and Azure Portal
* Connect to on-premises systems using the on-premises data gateway
* Create schemas for Azure API Apps
* Build maps for the BizTalk Transform Service API App
* Manage Enterprise Integration Pack assets using an Integration Account
* Interact with Azure Service Bus topics, subscriptions, and queues manually and programmatically
* Build complex workflows using Logic Apps to perform forking, merging, loops, parallel execution, and exception handling
* Build custom API Apps including triggers and actions

**Outline**

* Introduction to Logic Apps and Cloud-Based Integration
  + Microsoft Integration Platform Vision
  + Logic App Technology Primer
  + Building a Simple Logic App
* Setting Up an Azure App Service Development Environment
  + Components of Hybrid Integrations
  + Setting Up a Development Environment
* Introduction to Logic Apps
  + Logic App Fundamentals
  + Anatomy of a Logic App
  + Intro to Logic Apps Expressions
  + Manual Testing and Troubleshooting
* Using Azure Resource Groups as an Application Lifecycle Container
  + Resource Groups Fundamentals
  + Working with Resource Groups
  + Managing Resource Deployments Using Team Foundation Server
* Advanced Logic Apps
  + Conditional Execution
  + Calling External Logic
  + Exception Handling
  + Looping Through Data
  + Tracking
* Building Enterprise Application Integration (EAI) Apps Using Azure App Service
  + EAI Concepts
  + Implement VETERO Using Logic Apps
  + Enabling Hybrid Integrations
  + Introducing the Enterprise Integration Pack
* Creating Schemas
  + Introduction to Schemas
  + Creating XML Schemas
  + Schemas for Non-XML Messages
  + Introduction to Logic Apps and Cloud-Based Integration
  + Microsoft Integration Platform Vision
  + Logic App Technology Primer
  + Building a Simple Logic Apps
* Mapping Data Using Transforms
  + Introduction to Maps
  + Manipulating Data Using Functoids
  + Getting the Most out of the Mapper
* Introduction to Microsoft Azure Service Bus
  + What Is Service Bus?
  + Working with Queues
  + How Service Bus Handles Failures
* Implementing a Publish/Subscribe Model Using Service Bus
  + Theory of Topics and Subscriptions
  + Interacting with Topics and Subscriptions Programmatically
* Architecting Cloud Integration Solutions
  + Reviewing Core Technologies
  + Full-Day Workshop
    - Building EAI Apps Using Azure App Service
    - Advanced Apps with Azure App Service
    - Building Request/Response Logic Apps
* Building Custom API Apps
  + Anatomy of an API App
  + Fundamentals of Web API
  + Hello API App World
  + Debugging API Apps
  + Creating Deployment Templates for Custom APIs
* Building Custom Triggers
  + Concepts of Triggers
  + Creating Polling Triggers
* Conclusion