

Azure Integration Services

Duration: 40 Hours (5 Days)

Overview

The Azure Integration Services course is designed to provide learners with in-depth training on Azure's suite of integration tools and services, enabling them to create comprehensive solutions that can incorporate various cloud and on-premises systems. Throughout the course, participants will explore Logic Apps, Service Bus, Event Grid, API Management, and more, understanding how to leverage these services to address integration scenarios and challenges. By engaging with this Azure integration services training, students will gain practical experience in developing Logic Apps in VS Code, managing API gateways, utilizing Azure Functions, and working with Azure Data Factory. The course also covers essential concepts like API Management policies, Event Grid topics, and monitoring with Azure Monitor. Additionally, the course goes beyond technical aspects, delving into DevOps practices, Azure Active Directory, and managing resources effectively. This Azure integration training is crucial for professionals looking to master Azure's integration capabilities, as it equips them with the knowledge and hands-on experience needed to design and implement robust integration solutions on the Azure platform.

Audience Profile

Koenig Solutions' Azure Integration Services course offers in-depth training on cloud integration solutions and best practices for IT professionals.

- Cloud Solutions Architects
- IT Developers focused on integration and automation
- Systems Administrators looking to expand into cloud-based solutions
- DevOps Engineers interested in automating cloud deployments
- Data Engineers and Data Scientists involved in data integration and workflows
- IT Project Managers overseeing cloud migration and integration projects
- Software Engineers who want to integrate Azure services into their applications
- Technical Team Leads managing integration services and cloud resources
- Enterprise Architects designing cloud integration strategies
- Security Specialists focusing on secure cloud integrations and communications
- Business Intelligence Professionals requiring knowledge of Azure data services and integration
- IT Professionals seeking to learn about Azure Logic Apps, Service Bus, API Management, and Event Grid
- Consultants providing advice on cloud integration and automation strategies

Course Syllabus

Module 1 Integration Services Overview

- Integration Scenarios
- Integration Challenges
- Basic enterprise integration on Azure
- Architecture
- Overview of types of Integration Services
- Logic Apps
- Service Bus

- API Management
- Event Grid
- Azure Functions
- Data Factory

Module 2: Azure Logic Apps

- Why logic app?
- Logic app Fundamentals
- Logic app Vs Functions Vs Microsoft Flow
- Anatomy of a logic app
- Connectors in logic app
- Triggers and Actions in Connectors
- Creating and managing logic app
- Create logic apps using Management Console
- Create logic apps using Visual Studio
- Create and Manage logic apps using CLI
- Create and Manage logic apps using PowerShell
- Demo: Creating first logic app using Management Console
- Demo: Creating first logic app using .Net
- Demo: Create schedule-based and recurring automation workflows with Azure Logic Apps
- Hand-on:
 - Create schedule-based and recurring automation workflows with Azure Logic Apps

Module 3: Azure Service Bus

- Why Service Bus?
- What Is Service Bus?
- Storage Account Queues Vs Service Bus Queues
- Enterprise integration using message broker and events
- Service Bus Tiers with Features
- Working with Queues
- Managing Service Bus Queues using Management Portal
- Demo: Managing Service Bus Queues using Management Portal
- Working with Service Bus Topics
- Demo: Managing Service Bus Topic using Management Portal
- How Service Bus Handles Failures
- Demo: How to work with Service Bus Queues in .Net
- Demo: How to work Service Bus Topics in .Net
- Configure Dead Letter Queue
- Demo: Getting Started with Service Bus Queues Using .Net
- Demo: Getting Started with Service Bus Topic Using .Net
- Hand-on:
 - Sending and Receiving Data from Service Bus Queues using .Net
 - Working with Service Bus Topic using .Net

Module 4: API Management

- Why we need APIM Service
- API Management overview
- Basic enterprise integration on Azure
- Working with APIs in APIM
- Components of API Management Service
- API Management Service Instance
- Creating new API in API Management Service Instance.
- Adding and configuring methods in API
- Demo: Import and publish your first API
- Configure authentication for APIs
- Configure policies
- Test the new API in the Azure portal
- Demo: Test the new API in the Azure portal
- Create and publish a product
- Monitor Published APIs
- Demo: Working with products
- Demo: Monitoring Published APIs
- Hands-on:
- Creating and Managing API Management Service

Module5: Azure Event Grid

- Why we need Event Grid
- Scenario for using Event Grid
- Explore Event Grid
- Type of Event Grid
- Difference between Event Grid and Event Hub
- Creating and Capturing Events in Azure Event Grid
- Demo: Handling Event using Event Grid.
- Demo: Send email notifications about Azure IoT Hub events using Event Grid and Logic Apps
- Hand-on:
- Send email notifications about Azure IoT Hub events using Event Grid and Logic Apps

Module6: Azure Functions

- Why we need Azure Function
- Azure Functions overview
- Benefits of Azure Function
- Overview of plans
- Scaling Options and limits in different plans
- Function app timeout duration in different plans
- Architecture of Azure Function
- Compare Azure Function and Web Jobs
- Developing Azure Functions
- Demo: Creating Azure Function using Azure Portal
- Demo: Creating Azure Function using .Net
- Best practices for reliable Azure Functions
- Implement Durable Functions

- Benefit of Durable Function over Azure Function
- Components of Durable function
- Demo: Creating Durable Function .Net
- Hand-on:
- Working with Azure Function based on Httptrigger
- Working with Azure Function based on even trigger

Module7: Data Factory

- Why?
- Overview of Data Factory
- Flow process of data factory
- Introduction to Data Lake
- Demo: Copying Data from Azure SQL to Data Lake
- Demo: Load Data from Data Lake to Power BI
- Demo: Creating Pipeline using Data factory
- Introduction to Azure Data Lake Analytics

Module8: Explore integration services solution architecture

- Basic enterprise integration on Azure
- Enterprise integration using message broker and events
- Publish internal APIs to external users