

## Course: IL - Developing with Azure Service Fabric

### Overview

This course is intended to help new and experienced Azure developers understand how to best design solutions using Azure Service Fabric. This course is also useful for architects and technical leads using Azure Service Fabric and related Azure services in their application architecture.

This course starts with the fundamentals and provides complete coverage of designing and developing Service Fabric applications including life cycle management, containers, workloads and design patterns, and Service Fabric Mesh.

### Course Details

- Duration: 3 Days
- Level 300

### Who this course is designed for:

- Software Developers

### Course Objectives

- Understand the Service Fabric architecture
- Understand the Service Fabric programming model
- Understand the Service Lifecycle Management approach
- Design scalable Service Fabric solutions using design patterns
- Understand the Service Fabric Mesh platform.
- Understand Azure PowerShell and Azure Command Line Interface (CLI)

### Pre-Requisites

- Familiarity with cloud computing concepts
- Familiarity with Azure
- Familiarity with container concepts

### Course Outline

Course Outline

#### **MODULE 1: Fundamentals**

This module covers designing and developing Service Fabric applications using stateless services, stateful services, and reliable actors.

In this module, students will learn about:

- What is Service Fabric?

- Stateless Services
- Stateful Services
- Actor Pattern
- Service Deployments and Upgrades
- Availability and Reliability
- Scalability and Performance

## **MODULE 2: Service Life Cycle Management**

This module focuses on the operations side and introduces how to manage Service Fabric clusters and how to manage, test, and diagnose Service Fabric applications.

In this module, students will learn about:

- Service Fabric Scripting
- Cluster Management
- Diagnostics and Monitoring
- Continuous Delivery

## **MODULE 3: Workloads and Design Patterns**

This module introduces patterns and scenarios including practical design patterns and best practices in implementing typical application scenarios including scalable web applications, IoT, big data, and multi-tenant applications.

In this module, students will learn about:

- Scalable Web
- Scalable Interactive Systems
- System Integration

## **MODULE 4: Service Fabric Mesh**

This module introduces the fully managed Service Fabric Mesh, a microservice platform for business-critical applications.

In this module, students will learn about:

- Service Fabric Mesh
- Deploying microservices without management overhead
- Deploying applications without managing infrastructure
- Operational monitoring and alerting

## **MODULE 5: Azure PowerShell and Azure CLI**

In this module, students will learn about:

- Azure PowerShell
- Azure Command Line Interface (CLI)