

# MICROSERVICES IN THE MICROSOFT STACK

## WORKSHOP OVERVIEW

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### KEYHOLE SOFTWARE COURSE DESCRIPTION

This is an introductory workshop on Microservices in the Microsoft stack. In this course, your enterprise team will undergo structured hands-on Lab/Lecture sessions conducted online or in person with Keyhole Software Sr. Consultants.

### COURSE DURATION

This is a one day course.

### PREREQUISITES

Intermediate-to-advanced JavaScript programming experience.

### SESSIONS OUTLINED IN COURSE

The two sessions will be split up and elongated as necessary, depending on students' comprehension of the material. This time will also be used as a forum to ask both low and high level technical, business, process questions of the Instructor.

### PART ONE

- What is Microservice Architecture
- How can it be applied to my current
- How to setup environment for Service Fabric development
- The architecture and components of Service Fabric Service discovery mechanisms
- How to make a self-documenting API Gateway
- Basic data types in Service Fabric
- How to make services fault tolerant
- How to implement failure as a service

### OBJECTIVE

The goal of this course is to give the development teams an in-depth, hands-on look at strategies for separating domains; automating build, test and release pipelines; monitor and fix problems in a distributed system; delivering business value from distributed data; and key concepts/technologies that facilitate a highly maintainable, scalable system of systems.

The concepts learned will serve as a technical reference moving forward, as well as a sandbox for trying new patterns, practices, and principles.

### PART TWO

- Micro-Data as a pattern
- Basic CQRS Patterns
- Breaking down services into coherent domains
- Build an Invoice Service Data pipelining for highly decoupled systems of systems
- Near real-time data aggregation
- Build an Invoice Aggregation service
- Service Fabric partitions
- Scaling Service Fabric

