Web App Operations & App Service Mastery

Course ISI-1623 Three days Instructor-Led, Hands-on

Introduction

Web App Operations & App Service Mastery is an operations-focused course for teams running production web applications on Azure App Service. Learners build practical, end-to-end capability across the full app lifecycle: designing separate Dev/Test/Prod environments, securing apps with Key Vault, certificates, and managed identity, deploying safely with slots, swap/rollback, and blue/green patterns, and operating confidently with monitoring, alerting, analytics, logging, and unified dashboards.

By the end of the course, participants will be able to structure an App Service estate that supports reliable releases and strong security controls, validate changes with low-risk deployment practices, and create a "single pane of glass" view that connects Application Insights, Log Analytics, and Microsoft Entra (identity) logs for faster troubleshooting and better operational decisions.

Audience

This course is ideal for:

- Cloud/DevOps engineers, SREs, platform engineers, and developers responsible for deploying and operating web apps on Azure App Service

At Course Completion

Upon successful completion of this course, students will understand:

- Design environment separation strategies (Dev/Test/Prod), including resource group/subscription patterns, RBAC boundaries, and configuration differences.
- Implement secure configuration with Azure Key Vault, Key Vault references, managed identity, and certificate lifecycle management.
- Use deployment slots with swap/preview, release validation, and fast rollback, including blue/green deployment approaches.
- Set up operational readiness: availability tests, health checks, performance alerts (CPU/memory/5xx/latency), and action-based notifications.
- Measure adoption and behavior using Application Insights usage concepts like sessions, events, funnels, and flows, and connect outputs for reporting.
- Diagnose latency and dependency failures using end-to-end tracing concepts, dependency telemetry, percentile latency (p95/p99), and application topology views.

Contact ISInc for more information at 916.920.1700 or by visiting our website at http://www.isinc.com

- Build an actionable logging strategy across application logs, platform/resource logs, and identity logs (Entra), and query with KQL.
- Create unified operational views using Azure Monitor Workbooks and dashboards, combining signals into shared operational KPIs

Prerequisites

Prior to attending this course, students should have experience covered by Azure Fundamentals

Course Outline

Module 1: Environment Separation (Dev/Test/Prod)

- Why Separate Environments
- Azure Environment Structure
- What Changes Between Environments

Module 2: Secrets, Certificates & Secure Configuration

- Why Secrets Management Matters
- What Azure Key Vault Stores
- Managed Identity
- Key Vault References
- Certificates in App Service

Module 3: Deployment, Slots, Swap, Rollback & Release Validation

- Deployment Challenges
- Deployment Slots
- Release Validation
- Rollback Strategy

Module 4: Availability Monitoring & Alerts

- Why Monitoring Matters
- Availability Tests
- Health Check Endpoint
- Alerts You Should Configure

Module 5: Analytics: Who Uses the Site & How

- Understanding User Behavior
- Feature Usage Tracking
- Funnels & User Journeys

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Module 6: Performance Diagnostics

- Performance Signals
- End-to-End Tracing
- Application Map

Module 7: Logging: Application, Platform & Identity Logs

- Logging Layers
- Application Logs
- Platform Logs
- Identity Logs

Module 8: Unified Observability & Dashboards

- Why Unified Observability
- Workbooks
- Dashboards