Azure DevOps with Developer

AZ-204 & AZ-400

Topics Covered as Follows

Implement Infrastructure as a Service Solutions

- Provision virtual machines in Azure
- Create and deploy ARM Templates
- Manage Containers images in Azure Container Registry

Develop Solutions that use Blob Storage

- Explore Azure Blob Storage
- Manage the Azure Blob Storage Lifecycle
- Work with Azure Blob Storage

Create Azure App Service Web App

- Explore Azure App Service
- Configure web app Setting
- Scale apps in Azure App Service
- Explore Azure App Service Deployment slots

Implement Azure Functions

- Explore Azure Functions
- Develop Azure Functions
- Implement Durable Functions

Develop Solutions that use Azure Cosmos DB

- Explore Azure Cosmos DB
- Implement partitioning in Azure Cosmos DB
- Work with Azure Cosmos DB

Integrate caching and content delivery within solutions

- Develop for Azure cache for Redis
- Develop for Storage on Content Delivery Networks

Develop message-based Solutions

- Discover Azure message Queues

Instrument solutions to support monitoring and logging

- Monitor Application performance

Implement API Management

- Explore API management

Implement user Authentication and Authorization

- Explore the Microsoft Identify Platform
- Implement Authentication by using the Microsoft Authentication Library
- Implement shared access signatures
- Explore Microsoft Graph

Implement user secure Cloud Solutions

- Implement Azure key vault
- Implement managed identities
- Implement Azure App Configuration

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Get Started on a DevOps transformation journey

- Introduction to DevOps
- Choose the right project
- Describe team structures
- Migrate to DevOps
- Introduce to Source Control
- Describe types of Source Control System
- Work with Azure Repos and Github

Work with Git for enterprise DevOps

- Structure of Git Repo
- Manage Git branches and workflows
- Collaborate with pull requests in Azure Repos
- Explore Git hooks
- Plan foster inner source
- Manage Git Repositories

Implement Continuous Integration with Azure Pipelines and Github Actions

- Explore Azure Pipelines
- Manage Azure Pipelines agents and pools
- Describe Pipelines and Concurrency
- Explore Continuous Integration
- Implement a Pipeline strategy
- Integrate with Azure Pipelines
- Introduction to Github Actions
- Learn Continuous Integration with Github Actions

Design and Implement a release strategy

- Introduction to continuous delivery
- Explore release strategy recommendations
- Build a high-quality release Pipeline
- Introduction to deployment patterns
- Implement blue-green deployment and feature toggles
- Implement canary releases and dark launching
- Implement A/B testing and progressive exposure deployment

Implement a secure continuous deployment using Azure Pipelines

- Create a release Pipeline
- Configure and Provision environments
- Manage and modularize tasks and templates
- Automate inspection of health
- Introduction to security development process
- Manage application configuration data
- Integrate with identity management systems
- Implement application configuration

Manage Infrastructure as code using Azure Desired State Configuration and Third Party Tools

- Explore infrastructure as code and Configuration Management
- Create Azure Resource using Azure Resource Manager Templates
- Create Azure Resources by using Azure CLI
- Explore Azure Automation with DevOps
- Implement Desired State Configuration
- Introduction to Chef and Puppet
- Implement Ansible
- Implement Terraform

Design and Implement a dependency management Strategy

- Explore package dependencies
- Understand package management
- Migrate consolidating and secure artifacts
- Implement a versioning strategy

Create and Manage containers using Docker and Kuberenetes

- Design a Container build strategy
- Implement Docker multi-stage builds
- Implement Azure Kubernetes Services
- Explore Kubernetes Tooling
- Integrate Azure Kubernetes Services with Pipelines

Implement Continuous Feedback

- Implement tools to track usage and flow
- Implement route for mobile application crash report data
- Develop monitor and status dashboards
- Share knowledge within teams
- Explore SRE and design practices to measure end-user satisfaction
- Design processes to capture and analyze user feedback
- Design processes to automate application analytics
- Manage alerts, blameless retrospectives and a just culture

Implement security and validate code boses of compliance

- Understand Security in the Pipeline
- Introduction to Azure Security Center
- Implement Open-Source software
- Manage anti-malware and anti-spam policies
- Integrate license and vulnerability scans
- Identify technical debt