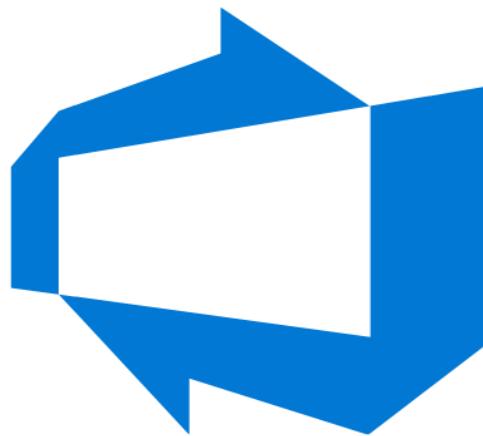


IntelliQ IT



Azure DevOps

AZURE DEVOPS COURSE CONTENT

Date: Timings:

Duration: Fee:

Faculty:

AZURE DEVOPS COURSE CONTENT

DevOps Objective:

- Understanding Development
- Development SDLC : Waterfall & Agile
- Understanding Operations
- Dev vs. Ops
- DevOps to the rescue
- What is DevOps
- DevOps SDLC
- Continuous Delivery model
- DevOps tools for DevOps SDLC
- DevOps Roles & Responsibilities

Linux Basics:

- Linux Introduction
 - Command line utilities & Basic commands
 - Linux File system
 - Text Editors (VIM)
 - Filters & I/O Redirections
 - Users & Group administration
 - File permissions & Ownerships
 - Sudo
 - Software Management: Red hat & Ubuntu
 - Useful tools: ssh, telnet, scp, rsync, disk utils, backups etc
- Systems and HW stats

Azure

Administration:

Introduction to Azure

- Cloud technology overview
- What is PaaS/ SaaS/ IaaS
- Overview of Azure
- Managing Azure Subscriptions

- Managing Azure with the Azure portal
- Demo: Azure Portal
- Overview of Azure Resource Manager

Virtual Machines

- Create and Configure Virtual Machines
- VM Networking
- Manager Azure using Azure portal
- Manage Azure using PowerShell
- Creation/Deletion of database using PS
- RBAC roles
- Multi-factor authentication
- IP white-listing
- Azure portal Walk-through

Working with Active

Directory

- Overview of AD
- Why we need AD for Azure
- Active directory configuration in Azure

Azure App service

- Overview of app service
- Deployment of app service
- Configuring and Maintaining web apps
- Monitoring web apps and Web jobs
- Traffic manager

Azure SQL Database

- Overview of SQL database on azure
- Deploying Azure SQL Database
- Implementing and managing Azure SQL Database
- Managing security
- Azure SQL database Recovery
- Import/Export data

Hands-on

Creating Azure resources using Azure portal and Powershell. Update or Modify Existing appsettings

Make deployments to Appservice .

Config Management Version control system with Git

- What is VCS & why it is needed
- DevOps use cases
- Setup your own repo with git
- Manage your code base/source code with GIT & GITHUB

Azure DevOps

Introduction Azure DevOps

- Azure Repos
- Azure Pipelines
- Azure Artifacts
- Azure Test Plans
- Azure Boards

Source Control Management (SCM)

- Version controlling mechanism using Azure Repos
- Branching & merging strategy
- Various branching & merging strategies and their scenarios
- Best Practices

Continuous Integration (CI)

- Continuous Integration using Azure Pipelines
- Pipeline creation
- Environments
- Tasks
- Workflows
- Code Coverage
- Code Quality
- SonarQube Integration
- Gated Builds
- Best Practices

Continuous Deployment (CD)

- Deployment Pipelines using Azure Pipelines
- Automation of Application Configuration (web.config, app.config etc)
- Automated workflows for Deployments
- Gated Deployments
- Integration with Artifact management
- Roll-backs
- One-click deployments
- Best Practices
- Blue-green and canary deployments

Dockers & Containers

- What are containers
- Difference between VM's & Containers
- Hypervisor Vs Docker Engine
- Docker Introduction
- Docker installation
- Images & containers basics
- Images
 - Docker Images Deep Dive
 - Docker Hub
 - Pull & Push images
 - Building your own Image with Docker file
 - Hosting & Managing Images
- Containers
 - Deep Dive
 - Running, Stopping, Deleting, Inspecting & Managing containers
 - Web server examples
 - Local Development workflow
 - Automated Workflow/ Continuous delivery of Dockers

Kubernetes

- Docker Orchestration with Kubernetes
 - Micro service Architecture
 - Why Containers for micro services
 - Kubernetes Intro & Architecture
 - Kubernetes setup
 - Running Docker containers on Kubernetes
 - Kubectl
 - Pod
 - Service

- Replication controller & Set
- Deployment
- What's Next in Container world
- DevOps job profiling, Interview questions.
- How to keep up with DevOps latest tools. Real

scenario tasks, azure interview questions