

Program Akdemii CloudOps

INTRODUCTION - AZURE BASICS & IDENTITY

AZURE CLOUD INTRODUCTION

- › What is cloud and how it works?
- › Why Cloud? Benefits and drawbacks.
- › Definiton of IaaS, PaaS and SaaS.

IDENTITY

- › Azure Active Directory
- › Users and Groups
- › Service principals
- › Managed Identities

GOVERNANCE AND COMPLIANCE

- › Subscriptions and AccountsManagement Groups
- › Azure Policy
- › Role-based Access Control (RBAC)

AZURE ADMINISTRATION & INFRASTRUCTURE

AZURE ADMINISTRATION

- › Azure Resource Manager
- › Azure Portal and Cloud Shell
- › Azure PowerShell and CLI
- › ARM Templates
- › Azure Bicep

VIRTUAL NETWORKING

- › Virtual Networks
- › IP Addressing
- › Network Security groups
- › Azure Firewall
- › Azure DNS

AZURE SECURITY & NETWORKING & DATA

INTERSITE CONNECTIVITY

- VNet Peering
- VPN Gateway Connection

NETWORK TRAFFIC MANAGEMET

- Network Routing and Endpoints
- Azure Load Balancer
- Azure Application Gateway
- Traffic Manager

AZURE STORAGE

- Storage Accounts
- Blob Storage
- Storage Security
- Azure Files and File Sync
- Managing Storage

AZURE VIRTUAL MACHINES

- Virtual Machine Planning
- Creating Virtual Machines
- Virtual Machine AvailabilityV
- irtual Machine Extensions
- Spot Instances
- Configuration-as-Code – DSC / Ansible / Puppet

WEB APPLICATIONS

- Azure App Service & WebApps
- Static websites

AZURE COMPUTE & CONTAINERS

SERVERLESS COMPUTING

- Azure App Service Plans
- Azure App Service
- Azure Functions
- Durable Functions
- Azure Logic Apps

CONTAINERIZATION

- Container Services
- Azure Container Registry
- Azure Container Instances
- Azure Kubernetes Service
- Azure Container Apps

DATA PROTECTION

- File and Folder Backups
- Virtual Machine Backups
- Database backups

MONITORING

- Azure Monitor
- Azure Alerts
- Log Analytics
- Network Watcher

TERRAFORM

TERRAFORM SCRIPTING

- Installing and Configuring Terraform (Cloud or On-Premise)
- Understanding Configuration Management and DevOps Methodology
- How Terraform Compares with Ansible, Chef, Puppet, and SaltStack
- Overview of Terraform Features and Architecture
- Navigating the User Interface
- Overview of Terraform Syntax
- Planning an Infrastructure Strategy
- Defining Infrastructure through Configuration Files

- › Executing the Infrastructure
- › Understanding and Managing State
- › Understanding and Tracking Dependencies
- › Destroying Infrastructure
- › Version Controlling Configurations
- › Tracking Changes
- › Sharing Configurations with Others
- › Automation Testing for Infrastructure
- › Securing Access
- › Troubleshooting

GOOGLE CLOUD

GOOGLE CLOUD KNOW-HOW

- › Introducing Google Cloud Platform
- › Getting Started with Google Cloud Platform
- › Networking in Google Cloud Platform
 - Google Cloud VPC Networking Fundamentals
 - Controlling Access to VPC Networks
 - Sharing Networks across Projects
 - Load Balancing
- › Virtual Machines in the Cloud
- › Storage in the Cloud
- › Containers in the Cloud
- › Applications in the Cloud (App Engine)
- › Deploying and Monitoring in the Cloud