



TECHNOCATION FREELANCING TRAINING INSTITUTE & SOFTWARE HOUSE

Professional Microsoft Azure Course Outline

Module 1: Introduction to Microsoft Azure

- What is Cloud Computing? Overview of IaaS, PaaS & SaaS
 - Understanding Azure's Global Infrastructure
 - Azure Subscription, Free Tier & Pricing Models
 - Azure Portal, CLI & PowerShell Basics
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Module 2: Core Azure Services & Solutions

- Compute Services: Virtual Machines (VMs), App Services, Containers
 - Storage Services: Blob Storage, Azure Files, Disk Storage
 - Database Services: Azure SQL Database, Cosmos DB, MySQL, PostgreSQL
 - Networking Services: Virtual Networks (VNet), Load Balancers, VPN Gateways
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Module 3: Azure Identity & Security

- Understanding Azure Active Directory (Azure AD)
 - Role-Based Access Control (RBAC) & Identity Management
 - Multi-Factor Authentication (MFA) & Conditional Access Policies
 - Azure Security Center & Defender for Cloud
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Module 4: Azure Networking & Connectivity

- Virtual Networks (VNets) & Subnets
 - Azure DNS & Traffic Manager
 - ExpressRoute & Site-to-Site VPN Configuration
 - Azure Firewall & DDoS Protection
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Module 5: Azure Compute Services

- Deploying & Managing Virtual Machines (VMs)
 - Autoscaling & Load Balancing in Azure
 - Azure Kubernetes Service (AKS) & Containerization
 - Serverless Computing with Azure Functions
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Module 6: Azure Storage & Data Management

- Understanding Blob, Table, Queue & File Storage
 - Configuring Storage Accounts & Access Tiers
 - Backup & Disaster Recovery Strategies
 - Data Encryption & Security Best Practices
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Module 7: Azure Databases & Analytics

- Azure SQL Database: Setup & Management
 - Cosmos DB: NoSQL Database for High Performance
 - Azure Synapse Analytics for Big Data Processing
 - Azure Data Factory & ETL Pipelines
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Module 8: Azure DevOps & Automation

- Introduction to Azure DevOps & CI/CD Pipelines
 - Infrastructure as Code (IaC) with ARM Templates & Terraform
 - Automation with Azure PowerShell & CLI
 - Monitoring & Performance Tuning
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Module 9: Azure AI, ML & IoT Services

- AI & Machine Learning with Azure Machine Learning
 - Cognitive Services (Vision, Speech, Language APIs)
 - IoT Hub & IoT Edge for Smart Devices
 - AI-Driven Chatbots with Azure Bot Service
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Module 10: Azure Security & Compliance

- Azure Security Center & Defender
 - Threat Detection & Response Strategies
 - Compliance & Governance Best Practices
 - Disaster Recovery & Business Continuity Planning
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Final Module: Certification & Hands-On Projects

- Hands-On Project: Deploying & Managing an Azure Solution
- Microsoft Azure Certifications Overview (AZ-900, AZ-104, AZ-204, etc.)
- Exam Preparation & Sample Questions
- Career Opportunities in Cloud Computing with Azure