

The Microsoft Azure Certification course teaches delegates how to manage Azure resources using Azure Resource Manager, how to identify services and capabilities that Microsoft Azure provides, how to manage Azure services and subscriptions using Windows PowerShell. The delegates will be introduced to the fundamentals of Microsoft Azure including Azure Powershell, Azure Site Recovery, Azure resource Manager, Azure Cloud Service, Azure Virtual network and Azure Storage. The Microsoft Azure course is aimed at IT professionals who have an understanding of Web/Mobile Applications, Virtualization technologies and Active Directory Domain Services. The course is also beneficial for professionals who work for organisations who wish to develop their IT infrastructure in the cloud and companies who are planning to migrate their infrastructure services onto Azure platform.

Microsoft Azure is a cloud computing platform that provides a range of services including VMs, file storage, databases for mobile and web apps. Azure was introduced by Microsoft in October 2008, and it was formerly known as Windows Azure. The Azure course provides an overview of the essential components of Azure, cloud technology and Azure networking including virtual networking and classic networking. During the course, the delegates will learn to manage Azure with Windows PowerShell and Azure CLI, plan and manage virtual networks, deploy VMs using Azure PowerShell and an Azure Resource Manager, configure and manage Azure VMs, plan and implement storage, backup, and recovery services, plan and deploy Azure Cloud Services and implement Azure Active Directory.

## Prerequisites

The delegates must possess the following technical knowledge before attending the course:

- Knowledge of Active Directory concepts such as domains, domain controllers and LDAP (Lightweight Directory Access Protocol)
- Understanding of on-premises virtualization technologies such as virtual hard disks, VMs and virtual networking
- A basic knowledge of websites including: how to create, deploy, configure and manage a website on IIS (Internet Information Services)
- Knowledge of resilience and disaster recovery, including backup and restore operations
- Understanding of network configuration including VPNs, TCP/IP, DNS and encryption technologies

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## Course Objectives

- Optimise availability and reliability by configuring, monitoring and managing Azure VMs
- Explain Azure architecture components including portals, infrastructure and tools
- Configure cross-premises connectivity
- Implement Azure App Service
- Implement Azure AD

- Implement and manage virtual networking within Azure
- Plan and create Azure VMs
- Plan and implement storage, backup, and recovery services
- Deploy, configure, monitor, and diagnose cloud services
- Manage an Active Directory infrastructure in a hybrid environment
- Use Azure Automation runbooks to automate operations in Azure

## Introduction to Azure

- Overview of cloud technology
- Azure overview
- Use Azure portal to manage Azure services
- Manage Azure with Windows PowerShell
- Manage Azure with Azure CLI
- Explain Azure deployment models
- Manage and monitor Azure resources

## Implementing and managing Azure networking

- Introduction to Azure networking
- Implementing and managing virtual networks
- Configuring an Azure virtual network
- Explain Azure classic networking
- Configure cross-premises connectivity and connectivity between virtual networks in Azure

## Implementing virtual machines

- Describe the main characteristics of Azure VMs
- Planning deployment of Azure VMs
- Use Azure PowerShell and an Azure Resource Manager template to deploy Azure VMs
- Describe classic Azure VMs

## Managing Azure VMs

- Configure Azure VMs
- Manage disks of Azure VMs
- Manage and monitor Azure VMs
- Manage classic Azure VMs

## Implementing Azure App Service

- Explain App Service
- Planning app deployment in App Service
- Implementing and maintaining web apps
- Configuring web apps
- Monitor the performance of web apps

## Planning and implementing storage, backup, and recovery services

- Select appropriate Azure Storage options to address business needs
- Implementing and managing Azure Storage
- Implementing Azure CDNs
- Implementing Azure Backup
- Planning and implementing Azure Site Recovery

## Implementing containers in Azure

- Implementing Windows and Linux containers in Azure
- Implementing Azure Container Service

## Implementing Azure Cloud Services

- Planning and deploying Azure Cloud Services
- Managing and maintaining Azure Cloud Services

## Implementing Azure Active Directory

- Creating and managing Azure AD tenants
- Configure SSO for cloud applications and resources
- Implement RBAC for cloud resources
- Explain the functionality of Azure AD Premium

## Managing an Active Directory infrastructure in a hybrid environment

- Extending an on-premises Active Directory domain to Azure IaaS
- Use Azure AD Connect to implement directory synchronization
- Implementing SSO in hybrid scenarios

## Implementing Azure-based management and automation

- Implementing OMS
- Implementing Azure Automation
- Implementing different types of Azure Automation runbooks
- Implementing Azure Automation-based management

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