Microsoft Azure Fundamentals and Virtual Machins

This course is intended for individuals who want to evaluate deploying, configuring, and administering services and virtual machines (VMs) by using Azure.

This course provides the underlying knowledge required by all individuals who will be evaluating Microsoft Azure, whether they are administrators, developers, or database administrators.
This course will introduce students to the principles of cloud computing. Students will become familiar with how these principles have been implemented in Microsoft Azure.
In addition, this course will explain how to implement the core Azure infrastructure, consisting of virtual networks and storage. With this foundation, students will learn how to create the most common Azure services, including Azure Virtual Machines, Web Apps, and Azure SQL Database.
The course will conclude by describing features of Azure AD and methods of integrating it with on-premises Active Directory.

Détails

- Code : Azure-FVM
- Durée : 2 jours (14 heures)

Public

- Administrateurs
- Administrateurs de bases de données
- Architectes
- Consultants
- Consultants informatiques
- Ingénieurs

Pré-requis

Objectifs

- Describe cloud computing, Azure, and Azure subscriptions, Use Azure PowerShell, the Azure Software Development Kit (SDK), and the Azure command-line interface (CLI) to manage Azure subscriptions
- Create and configure virtual machines in Azure, and manage their disks
- Create, configure, and monitor web apps in Azure and deploy Azure platform as a service (PaaS) cloud services
- Create and configure Azure virtual networks, Create, manage, and configure cloud storage in Azure
- Use Azure SQL Database to create, configure, and manage SQL databases

Programme

Module 1: Getting started with Microsoft Azure

- Description
    - This module introduces students to cloud services and the various Azure services
    - It describes how to use the Azure portal to access and manage Azure services, and to manage Azure subscription and billing
- Lessons
    - What is cloud computing?
    - What is Azure?
    - Managing Azure
    - Subscription management, support, and billing
- Lab
    - Using the Azure portals
    - Customizing the Azure portal interface
    - Viewing billing, usage, and quotas data
- After completing this module, students will be able to:
    - Describe cloud computing
    - Describe Azure and its various services
    - Manage Azure services from the Azure portal
    - Manage their Azure subscription and billing

Module 2: Microsoft Azure management tools

- Description
    - This module explains Azure PowerShell and its use in managing Azure subscriptions
    - It also describes how to use the Azure SDK and the Azure CLI to manage Azure subscriptions
- Lessons
    - What is Azure PowerShell?
    - Azure SDK and Azure CLI
- Lab
    - Using Microsoft Azure management tools
    - Using the Azure PowerShell modules
    - Using the Azure CLI
- After completing this module, students will be able to:
    - Describe and use Azure PowerShell to manage their Azure subscription
    - Describe and use the Azure SDK and the Azure CLI to manage your Azure subscription

Module 3: Virtual machines in Microsoft Azure

- Description

- ○ This module explains how to create and configure virtual machines in Azure and how to manage disks for virtual machines
- Lessons
  - ○ Creating and configuring VMs
  - ○ Configuring disks
- Lab
  - ○ Creating a VM in Azure
  - ○ Create a VM from the Azure portal by using an Azure Marketplace image
  - ○ Verify the functionality of the VM
  - ○ Configure storage of a VM
- After completing this module, students will be able to:
  - ○ Create and configure VMs in Azure
  - ○ Configure disks for VMs

Module 4: Web Apps and cloud services

- Description
  - ○ This module explains how to create, configure, and monitor web apps in Azure
  - ○ It also describes how to create and deploy Azure PaaS cloud services
- Lessons
  - ○ Creating and configuring web apps
  - ○ Deploying and monitoring web apps
  - ○ Creating and deploying PaaS cloud services
- Lab
  - ○ Web Apps and cloud services
  - ○ Creating and configuring a WordPress web app
  - ○ Creating a cloud service
- After completing this module, students will be able to:
  - ○ Create and configure web apps by using the Azure portal
  - ○ Deploy and monitor web apps in Azure
  - ○ Create and deploy Azure PaaS cloud services

Module 5: Creating and configuring virtual networks

- Description
  - ○ This module explains how to create and implement Azure networks and how to use their components to enhance the resiliency and availability of virtualmachines
- Lessons
  - ○ Getting started with virtual networks
  - ○ Configuring Azure networking
  - ○ Getting started with Azure Load Balancer
- Lab
  - ○ Create and configure virtual networks
  - ○ Creating virtual networks
  - ○ Verifying virtual network functionality
- After completing this module, students will be able to:
  - ○ Describe the purpose and functionality of Azure virtual networks
  - ○ Create Azure virtual networks
  - ○ Describe and implement Azure Load Balancer

Module 6: Cloud storage

- Description
  - ○ This module explains the features and benefits of cloud storage
  - ○ It also explains how to create, manage, and configure cloud storage in Azure
- Lessons
  - ○ Understanding cloud storage
  - ○ Create and manage storage
- Lab
  - ○ Configure Azure Storage
  - ○ Create an Azure Storage account
  - ○ Create and manage blobs
- After completing this module, students will be able to:
  - ○ Describe the features and benefits of cloud storage
  - ○ Create and manage storage in Azure

Module 7: Microsoft Azure Databases

- Description
  - ○ This module explains the options available for storing relational data in Azure
  - ○ It also explains how to use SQL Database to create, configure, and manage SQL databases in Azure
- Lessons
  - ○ Understanding options for relational database deployments
  - ○ Creating and connecting to Azure SQL databases
- Lab
  - ○ Creating a SQL Database in Azure
  - ○ Create a new Azure SQL database in Azure and configure SQL Server firewall rules
  - ○ Manage content of an Azure SQL database by using SQL Server Management Studio
- After completing this module, students will be able to:
  - ○ Describe options for relational database deployment in Azure
  - ○ Use Azure to create, connect to, and manage content of SQL databases

Module 8: Creating and managing Azure AD

- Description
  - ○ This module explains how to create users, domains, and directories in Azure AD, integrate applications with Azure AD, and use Multi-Factor Authentication
- Lessons
  - ○ Overview of Azure AD
  - ○ Manage Azure AD authentication
- Lab
  - ○ Create and manage Azure Active Directory tenants
  - ○ Create users in Azure AD
  - ○ Create a new Azure AD tenant and a custom DNS domain
- After completing this module, students will be able to:
  - ○ Create and manage Azure AD tenants, domains, and users
  - ○ Manage Azure AD authentication

Modalités

- Type d'action :Acquisition des connaissances
- Moyens de la formation :Formation présentielle – 1 poste par stagiaire – 1 vidéo projecteur – Support de cours fourni à chaque stagiaire
- Modalités pédagogiques :Exposés – Cas pratiques – Synthèse
- Validation :Exercices de validation – Attestation de stages