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Section – A

LAB: 01

### Task 1: Create a Virtual Machine

The screenshot shows the Microsoft Azure portal home page. The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot button. Below the navigation bar, there are two main sections: 'Azure services' and 'Resources'. The 'Azure services' section displays a grid of icons for various services: Create a resource, Policy, Network security groups, Subscriptions, App Services, Key vaults, Container Apps, Storage accounts, Cost Management, and More services. The 'Resources' section has tabs for 'Recent' and 'Favorite'. Under the 'Recent' tab, there is a table with the following data:

Name	Type	Last Viewed
Azure for Students	Subscription	24 hours ago
DefaultResourceGroup-EUS	Resource group	5 days ago

The screenshot shows the Microsoft Azure portal 'Virtual machines' page. The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot button. Below the navigation bar, there is a breadcrumb trail: Home > Compute infrastructure. The main heading is 'Compute infrastructure | Virtual machines'. On the left, there is a sidebar with the following navigation items: Overview, All resources, Infrastructure, Virtual machines (selected), Virtual Machine Scale Set (VMSS), Compute Fleet, Disks + images, and Capacity + placement. The main content area has a 'Create' button and a 'Get started' link. A 'You are viewing' section shows a list of filters: Subscription, Location, and Name. A 'Virtual machine' tooltip is displayed, providing information about Virtual machines and Virtual Machine Scale Sets (VMSS).

**Virtual machine**  
Best for lower-traffic workloads, testing, or to control or highly customize apps, OS, or file system. If your workload or traffic starts to grow, a VM can later be attached to a Virtual Machine Scale Set (VMSS).

**Virtual machine scale set (VMSS)**  
Built-in scaling, performance optimization, load balancing, and batch management for 1 to 1,000 VMs (no added cost). Include multiple VM sizes, zones, regions, and domains, along with discounted Spot VMs.

## Create a virtual machine



Help me choose the right VM size for my workload

Help me create a low cost VM

Help me create a VM optimized for high availability

Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.



Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

**Basics** Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

This subscription may not be eligible to deploy VMs of certain sizes in certain regions.

### Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*

Azure for Students

Resource group \*

(New) myVM\_group

< Previous

Next : Disks >

Review + create

## Create a virtual machine



Help me choose the right VM size for my workload

Help me create a low cost VM

Help me create a VM optimized for high availability



Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

Public IP

Loading...

[Create new](#)

NIC network security group

- ☐ None  
☒ Basic  
☐ Advanced

Public inbound ports \*

- ☐ None  
☒ Allow selected ports

Select inbound ports \*

HTTP (80), RDP (3389)



**This will allow all IP addresses to access your virtual machine.** This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Delete NIC when VM is deleted

☐

< Previous

Next : Management >

Review + create

## Create a virtual machine



Help me choose the right VM size for my workload

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Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

Basics Disks Networking Management **Monitoring** Advanced Tags Review + create

Configure monitoring options for your VM.

### Alerts

Enable recommended alert rules ⓘ

☐

### Diagnostics

Boot diagnostics ⓘ

☐ Enable with managed storage account (recommended)

☐ Enable with custom storage account

☒ Disable

Enable OS guest diagnostics ⓘ

☐

### Health

Enable application health monitoring ⓘ

☐

< Previous

Next : Advanced >

Review + create

Home >

## CreateVm-MicrosoftWindowsServer.WindowsServer-201-20251023180025 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

### Overview

Inputs

Outputs

Template

## ✓ Your deployment is complete



Deployment name : CreateVm-MicrosoftWindowsServer... Start time : 10/23/2025, 6:03:46 PM  
Subscription : Azure for Students Correlation ID : 341a5471-965d-4be8-9bf5-e4369ba4...  
Resource group : myV\_group

### > Deployment details

### ✓ Next steps

Set up auto-shutdown Recommended

Monitor VM health, performance, and network dependencies Recommended

Run a script inside the virtual machine Recommended

Go to resource

Create another VM

### Give feedback

Tell us about your experience with deployment



### Cost management

Get notified to stay within your budget and prevent unexpected charges on your bill.

[Set up cost alerts >](#)

## Task 2: Connect to the virtual machine

The screenshot shows the Azure portal interface for a virtual machine named 'myVm'. The left sidebar contains a navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, and Monitoring. The 'Connect' option is highlighted. The main area displays the VM's status as 'Running' and provides various action buttons: Connect, Start, Restart, Stop, Hibernate, Capture, Delete, and Refresh. A dropdown menu for 'Connect' is open, showing 'Connect via Bastion' and 'Connect via RDP'. The right pane shows details about the VM, including its resource group, location, subscription, and public IP address.

**myVm**  
Virtual machine

Help me copy this VM in any region | Manage this VM with Azure CLI

Search

**Overview**

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Connect
- Networking
- Settings
- Availability + scale
- Security
- Backup + disaster recovery
- Operations
- Monitoring

Connect | Start | Restart | Stop | Hibernate | Capture | Delete | Refresh

Connect  
Connect via Bastion

Resource group ([move](#))  
[myV\\_group](#)

Status  
Running

Location  
Central India (Zone 1)

Subscription ([move](#))  
[Azure for Students](#)

Subscription ID  
2abc1374-49a7-48c3-b0a8-366511eba3ea

Availability zone  
1

Tags ([edit](#))  
[Add tags](#)

Operating system  
Windows (Windows Server 2019 Datacenter)

Size  
Standard D2s v3 (2 vcpus, 8 GiB memory)

Primary NIC public IP  
[20.40.42.93](#)  
[1 associated public IPs](#)

Virtual network/subnet  
[myVm-vnet/default](#)

DNS name  
[Not configured](#)

Health state  
-

Time created  
10/23/2025, 1:04 PM UTC

[JSON View](#)

Add or remove favorites by pressing Ctrl+Shift+F

The screenshot shows the 'Connect' page for the virtual machine 'myVm'. The left sidebar is the same as the previous screenshot, but the 'Connect' option is now selected. The main area displays the 'Native RDP' connection method. It shows the source machine as 'Windows' with a local IP of 43.246.221.82. The destination VM has a public IP of 20.40.42.93 and a port of 3389. A green checkmark indicates that port 3389 is accessible from the source IP. There is a 'Check access' button and a 'Download RDP file' button. The username 'azureuser' is entered, and there is a 'Reset password' link. An 'Edit settings' button is at the bottom.

**myVm | Connect**  
Virtual machine

Search

**Connect**

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Connect
- Bastion
- Windows Admin Center
- Networking
- Settings
- Availability + scale
- Security

**Native RDP**

MOST POPULAR | LOCAL MACHINE

**Source machine**

Source machine OS  
Windows

Source IP address  
Local IP | 43.246.221.82 | [Connecting over a VPN?](#)

**Destination VM**

VM IP address  
Public IP | 20.40.42.93

VM port  
3389

**Connection prerequisites**

VM access  
✔ Port 3389 is accessible from source IP(s) [View applied NSG rules](#)

[Check access](#)

**Connect using RDP file**

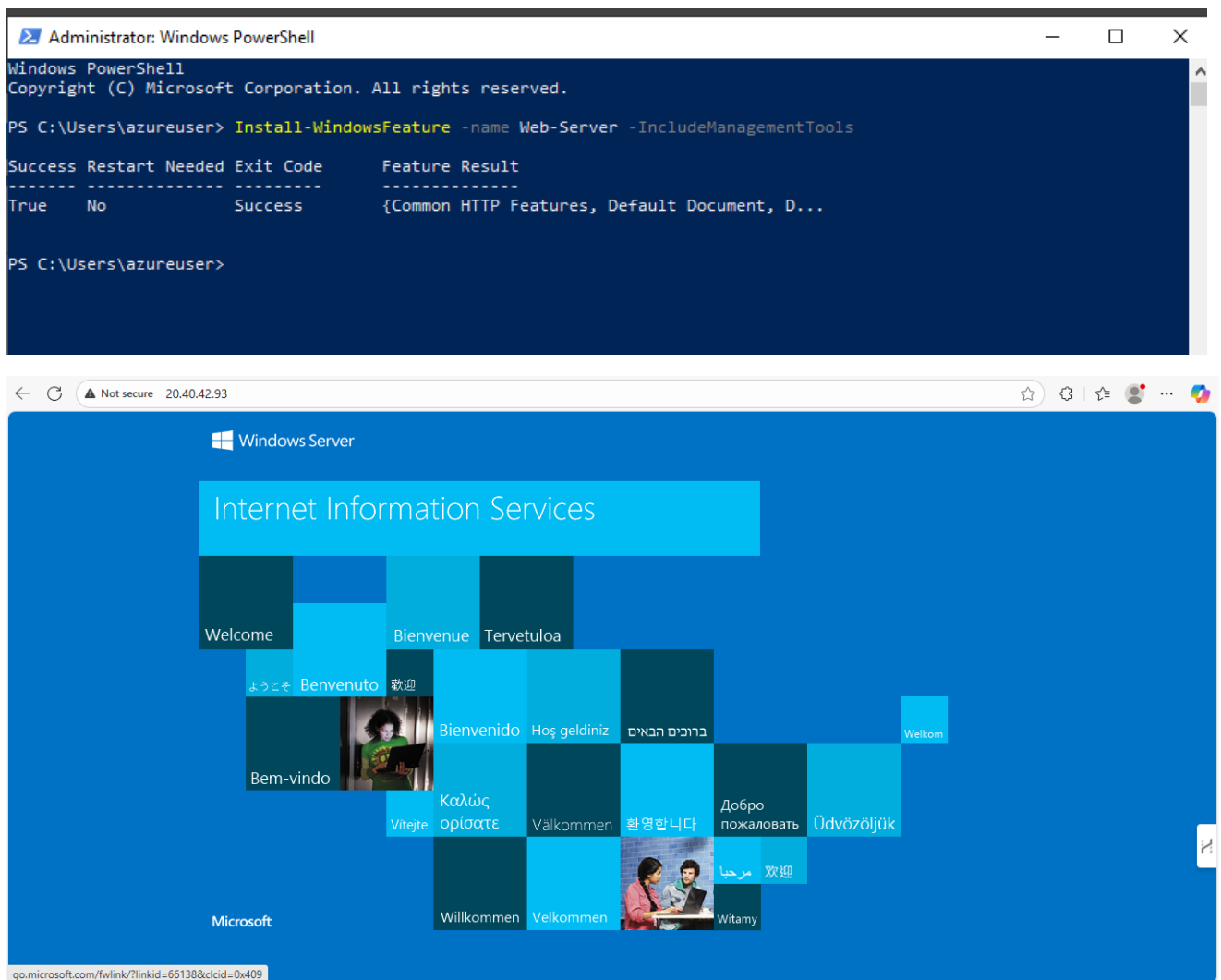
Download and open file to connect [Download RDP file](#)

Username  
azureuser | [Reset password](#)

[Edit settings](#)

Add or remove favorites by pressing Ctrl+Shift+F

### Task 3: Install the web server role and test



The image shows two screenshots. The top screenshot is a Windows PowerShell window titled "Administrator: Windows PowerShell". It displays the command `Install-WindowsFeature -name Web-Server -IncludeManagementTools` and its output, which indicates that the installation was successful and a restart is not needed. The bottom screenshot is a web browser window showing the Internet Information Services (IIS) website. The website has a blue background and features a large "Internet Information Services" header. Below the header, there is a grid of tiles displaying "Welcome" messages in various languages, including English, French, German, Italian, Japanese, Korean, and others. The Microsoft logo is visible in the bottom left corner of the website.

Administrator: Windows PowerShell

Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\azureuser> `Install-WindowsFeature -name Web-Server -IncludeManagementTools`

Success	Restart Needed	Exit Code	Feature Result
True	No	Success	{Common HTTP Features, Default Document, D...

PS C:\Users\azureuser>

Internet Information Services

Welcome

Bienvenue

Tervetuloa

ようこそ

Benvenuto

歓迎

Bienvenido

Hoş geldiniz

ברוכים הבאים

Bem-vindo

Vitejte

Καλώς ορίσατε

Välkommen

환영합니다

Добро пожаловать

Üdvözljük

Willkommen

Velkommen

Witamy

Microsoft

[go.microsoft.com/fwlink/?linkid=66138&clcid=0x409](https://go.microsoft.com/fwlink/?linkid=66138&clcid=0x409)