Module 4: Assignment – 4

Create a 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 * ⓘ

| Free Trial   ∨ |

    Resource group * ⓘ

| demo   ∨ |

Create new

Instance details

Virtual machine name * ⓘ

| linux   ✓ |

Region * ⓘ

| (US) East US   ∨ |

Availability options ⓘ

| Availability zone   ∨ |

Zone options ⓘ

◉ Self-selected zone
Choose up to 3 availability zones, one VM per zone

○ Azure-selected zone (Preview)
Let Azure assign the best zone for your needs

ⓘ Using an Azure-selected zone is not supported in region 'East US'.

Availability zone * ⓘ

| Zone 1   ∨ |

| < Previous | Next : Disks > | **Review + create** |

Create a 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 |

Administrator account

Authentication type ⓘ

◉ SSH public key
○ Password

> ℹ️ Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username * ⓘ

    rabi   ✓

SSH public key source

    Generate new key pair   ∨

SSH Key Type

◉ RSA SSH Format
○ Ed25519 SSH Format

> ℹ️ Ed25519 provides a fixed security level of no more than 128 bits for 256-bit key, while RSA could offer better security with keys longer than 3072 bits.

Key pair name *

    az   ✓

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ⓘ

○ None
◉ Allow selected ports

Select inbound ports *

    HTTP (80), SSH (22)   ∨

> ⚠️ **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.

| < Previous | Next : Disks > | **Review + create** |

🖥️ **linux** 📌 ☆ ⋯
Virtual machine

| 🔍 Search | ◇ « |

🔷 Help me copy this VM in any region

| ⊡ Overview | ⊕ Connect ∨ ▷ Start ↻ Restart ☐ Stop ⏱ Hibernate 📷 Capture ∨ 🗑 Delete ↻ Refresh 📱 Open in mobile ⤢ Feedback 🖵 CLI / PS |

| 📋 Activity log |
| 🔓 Access control (IAM) |
| 🏷️ Tags |
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| > Operations |
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∧ Essentials   JSON View

Resource group (move)	: DEMO	Operating system	: Linux (ubuntu 24.04)
Status	: Running	Size	: Standard B1s (1 vcpu, 1 GiB memory)
Location	: East US (Zone 1)	Public IP address	: 20.119.76.144
Subscription (move)	: Free Trial	Virtual network/subnet	: linux-vnet/default
Subscription ID	: d5c8b5df-61ed-4f8a-83d5-e2ce4d3df7f7	DNS name	: Not configured
Availability zone	: 1	Health state	: -
		Time created	: 12/03/2025, 10:34 UTC

Tags (edit)   : Add tags

Properties   Monitoring   Capabilities (7)   Recommendations   Tutorials

🖥️ **Virtual machine**

Computer name	linux
Operating system	Linux (ubuntu 24.04)
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.12.0.2
Hibernation	Disabled
Host group	-

🔷 **Networking**

Public IP address	20.119.76.144 (Network interface linux799_z1)
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	linux-vnet/default
DNS name	Configure

🖥️ **Size**

| Size | Standard B1s |

```
Memory usage: 33%                IPv4 address for eth0: 10.0.0.4
Swap usage:    0%


Expanded Security Maintenance for Applications is not enabled.

37 updates can be applied immediately.
12 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status




The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

rabi@linux:~$ sudo apt update
sudo apt install apache2 -y
sudo systemctl enable apache2
sudo systemctl start apache2
```

Apache2 Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|       `--  ports.conf
|-- mods-enabled
|       |-- *.load
|       `-- *.conf
|-- conf-enabled
|       `-- *.conf
|-- sites-enabled
|       `-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.

- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.

- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.

linux 📌 ☆ ⋯
Virtual machine

🔍 Search

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- 📋 Activity log
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- ∨ Security
  - 🔑 Identity
  - 🛡 Microsoft Defender for Cloud
- ∨ Backup + disaster recovery
  - 💾 Backup
  - 💾 Disaster recovery
  - 💾 Restore point

🔗 Help me copy this VM in any region

🔌 Connect ∨   ▷ Start   ↻ Restart   ☐ Stop   🕐 Hibernate   **⚙ Capture ∨**   🗑 Delete   ↻ Refresh   📱 Open in mobile   💬 Feedback   📄 CLI / PS

∧ Essentials   JSO

Resource group (move)	: DEMO	Operating system	: Linux
Status	: Stopped (deallocated)	Size	: Standard B1s (1 vcpu, 1 GiB memory)
Location	: East US (Zone 1)	Public IP address	: 20.119.76.144
Subscription (move)	: Free Trial	Virtual network/subnet	: linux-vnet/default
Subscription ID	: d5c8b5df-61ed-4f8a-83d5-e2ce4d3df7f7	DNS name	: Not configured
Availability zone	: 1	Health state	: -
		Time created	: 12/03/2025, 10:34 UTC

Tags (edit)   : Add tags

Properties   Monitoring   Capabilities (7)   Recommendations   Tutorials

🖥 **Virtual machine**

Computer name	linux
Operating system	Linux
VM generation	V2
VM architecture	x64
Hibernation	Disabled
Host group	-
Host	-
Proximity placement group	-
Colocation status	N/A
Capacity reservation group	-

🖧 **Networking**

Public IP address	20.119.76.144 (Network interface linux799_z1)
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	linux-vnet/default
DNS name	Configure

🖥 **Size**

Size	Standard B1s
vCPUs	1
RAM	1 GiB

Create an image ...

✓ Validation passed

Basics   **Tags**   **Review + create**

Basics

Subscription	Free Trial
Resource group	demo
Region	East US
Share image to Azure compute gallery	Yes
Automatically delete this virtual machine after creating the image	No
Azure compute gallery	(new) demm
Operating system state	Generalized
Target VM image definition	(new) linux-apache
Version number	0.0.1
Source virtual machine	linux
Exclude from latest	No
End of life date	None
Lock deleting Replicated Locations	Yes
Shallow replication	No

Replication

Default replica count	1
Replication	East US: 1

Tags

(none)

Create   < Previous   Next >   Download a template for automatic

Microsoft.Compute-CaptureVM-20250312162432 | Overview
Deployment

Search	
Overview	
Inputs	
Outputs	
Template	

🗑 Delete ⊘ Cancel ⤴ Redeploy ⬇ Download ↻ Refresh

✓ Your deployment is complete

Deployment name : Microsoft.Compute-CaptureVM-2025031216... Start time : 12/03/2025, 16:26:50
Subscription : Free Trial Correlation ID : 1c5b659b-fcf1-46aa-83da-853ddbbeef7a
Resource group : demo

> Deployment details

∨ Next steps

Go to resource

Cost management
Get notified to stay within your budget and
prevent unexpected charges on your bill.
Set up cost alerts >

Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Notifications

More events in the activity log →   Dismiss all ∨

✓ **Deployment succeeded**
Deployment 'Microsoft.Compute-CaptureVM-20250312162432' to
resource group 'demo' was successful.

Go to resource   Go to resource group
a few seconds ago

✓ **Successfully generalized virtual machine**
Successfully generalized the virtual machine '/subscriptions/d5c8b5df-
61ed-4f8a-83d5-
e2ce4d3df7f7/resourceGroups/DEMO/providers/Microsoft.Compute/virt...
8 minutes ago

✓ **Successfully stopped virtual machine**
Successfully stopped the virtual machine 'linux'.
13 minutes ago

VM image versions 📌 ⋯
Default Directory (1996sr1997gmail.onmicrosoft.com)

+ Create   ⚙ Manage view ∨   ↻ Refresh   ⬇ Export to CSV   ⚯ Open query | ⬚ Assign tags

Filter for any field...	Subscription equals **all**	Resource group equals **all** ✕	Location equals **all** ✕	⁺▽ Add filter

Showing 1 to 1 of 1 records.

☐ Name ↑↓	Type ↑↓	Resource group ↑↓	Location ↑
☐ 0.0.1 (demm/linux-apache/0.0.1)	VM image version	demo	East US