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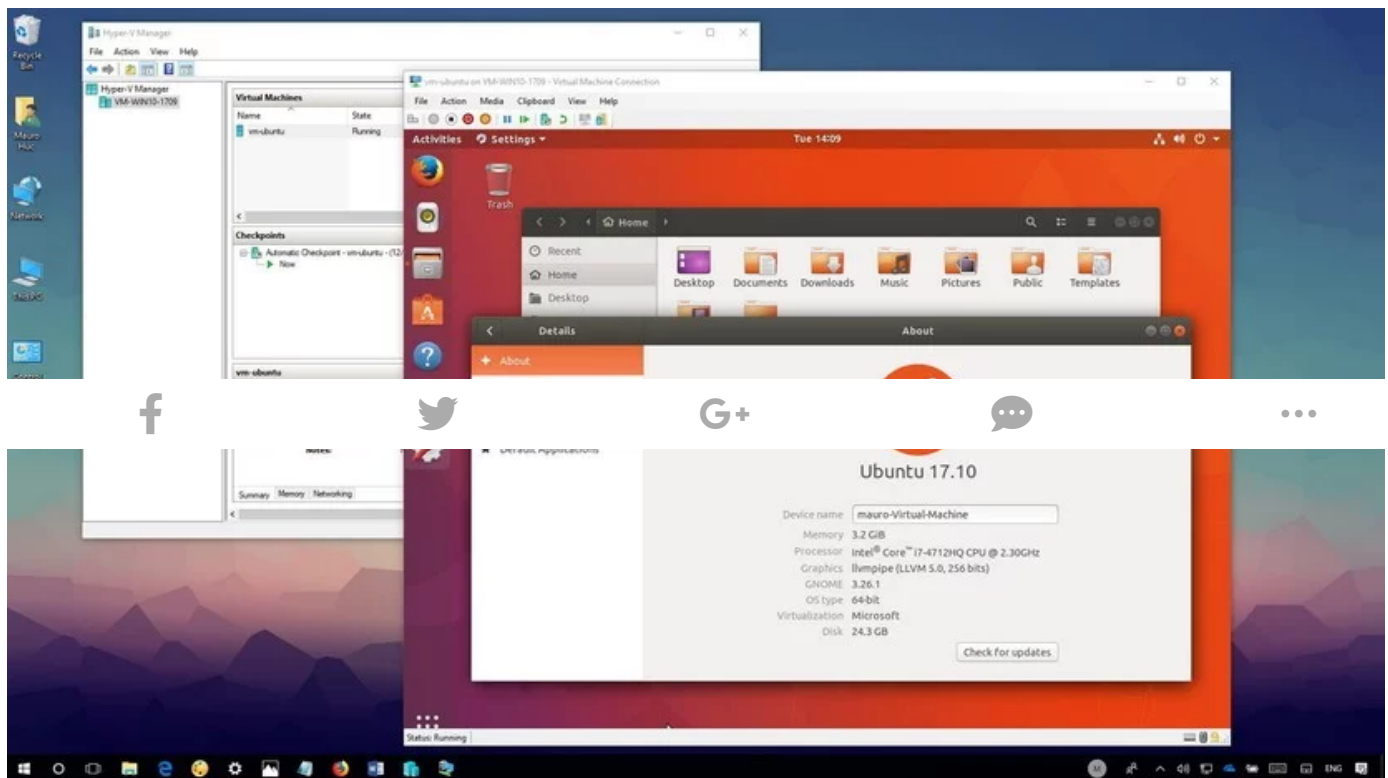
LINUX ON WINDOWS

How to create a Linux virtual machine on Windows 10 using Hyper-V

If you work with Linux, or you just want to test drive the OS, you can use Hyper-V to create a virtual machine with the distro you like alongside Windows 10.

MAURO HUCULAK 11 Dec 2017

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Although it's now possible to run a number of Linux distros natively on Windows 10, these environments can be somewhat limited in features and tools you can use. Also, you can only pick from three distros, including Ubuntu, SUSE Linux Enterprise, and OpenSUSE Leap, and you're stuck with the command-line interface, which means that you can't run any of the graphical experiences (e.g., GNOME, KDE, XFCE) or Linux-based graphical applications.

Of course, you can always install your favorite Linux distro on a second machine, but if you don't have one, it's still possible to run a full-blown version of Linux using a virtual machine

(VM).

If you're running Windows 10, you can enable Hyper-V on your device to create a VM to install your preferred distro whether you're a developer or an enthusiast who just wants to know what's the Linux fuzz all about.

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In this [Windows 10 guide](#), we'll walk you through the steps to install most Linux distributions on virtual machines using Microsoft's Hyper-V virtualization feature.

- [Guide requirements](#)
- [How to enable Hyper-V on Windows 10](#)
- [How to create a virtual machine using Hyper-V](#)
- [How to install Ubuntu Linux using Hyper-V on Windows 10](#)

Guide requirements

To run a Linux virtual machine on Windows 10, you'll need the following:



- A computer with support for Hyper-V.
- An ISO file to install your preferred Linux distribution.

In this guide, we'll be using Ubuntu version 17.10, which you can download from the [official Ubuntu website](#). However, it's possible to install version 16.04, which might be a more stable version of the open source project, and you can also install other distros, including:

- CentOS and Red Hat Enterprise Linux.
- Debian.
- SUSE.
- Oracle Linux.
- FreeBSD.

How to enable Hyper-V on Windows 10

Hyper-V is a virtualization technology from Microsoft available on Windows 10 Pro, Enterprise, and Education, and it allows you to create one or multiple virtual machines to install and run different OSes on the same physical hardware.

Verifying Hyper-V support

Although Hyper-V is part of Windows 10, there is a minimum hardware requirement a computer must meet to enable the feature.

- 64-bit CPU with Second Level Address Translation (SLAT).
- Processor must support VM Monitor Mode Extension (VT-c on Intel chips).
- 4GB of memory at a minimum.

In addition, you have to make sure the **Virtualization Technology** and **Hardware Enforced Data Execution Prevention** options are enabled on your system BIOS.

You can quickly verify your computer has the required support for Hyper-V using Systeminfo:

1. Open **Start**.
2. Search for **Command Prompt** and click the top result.
3. Type the following command and press **Enter**:



4. Under **Hyper-V Requirements**, if the result reads **Yes**, then you can run Hyper-V.

```
C:\WINDOWS\system32\cmd.exe

IP address(es)
[01]: 192.168.31.1
[02]: fe80::c03a:5d21:48aa:bf7f
[02]: VMware Virtual Ethernet Adapter for VMnet8
Connection Name: VMware Network Adapter VMnet8
DHCP Enabled: No
IP address(es)
[01]: 192.168.214.1
[02]: fe80::2809:8fb5:288e:bae
[03]: Intel(R) Dual Band Wireless-AC 7260
Connection Name: Wi-Fi
DHCP Enabled: Yes
DHCP Server: 10.1.2.1
IP address(es)
[01]: 10.1.2.116
[02]: fe80::175:ec8:23f:72ee
[04]: Bluetooth Device (Personal Area Network)
Connection Name: Bluetooth Network Connection
Status: Media disconnected

Hyper-V Requirements: VM Monitor Mode Extensions: Yes
Virtualization Enabled In Firmware: Yes
Second Level Address Translation: Yes
Data Execution Prevention Available: Yes

C:\Users\xbox1>
```

If the command displays **No** under Hyper-V Requirements, then your hardware doesn't support this feature, or you need to make sure to enable it manually.

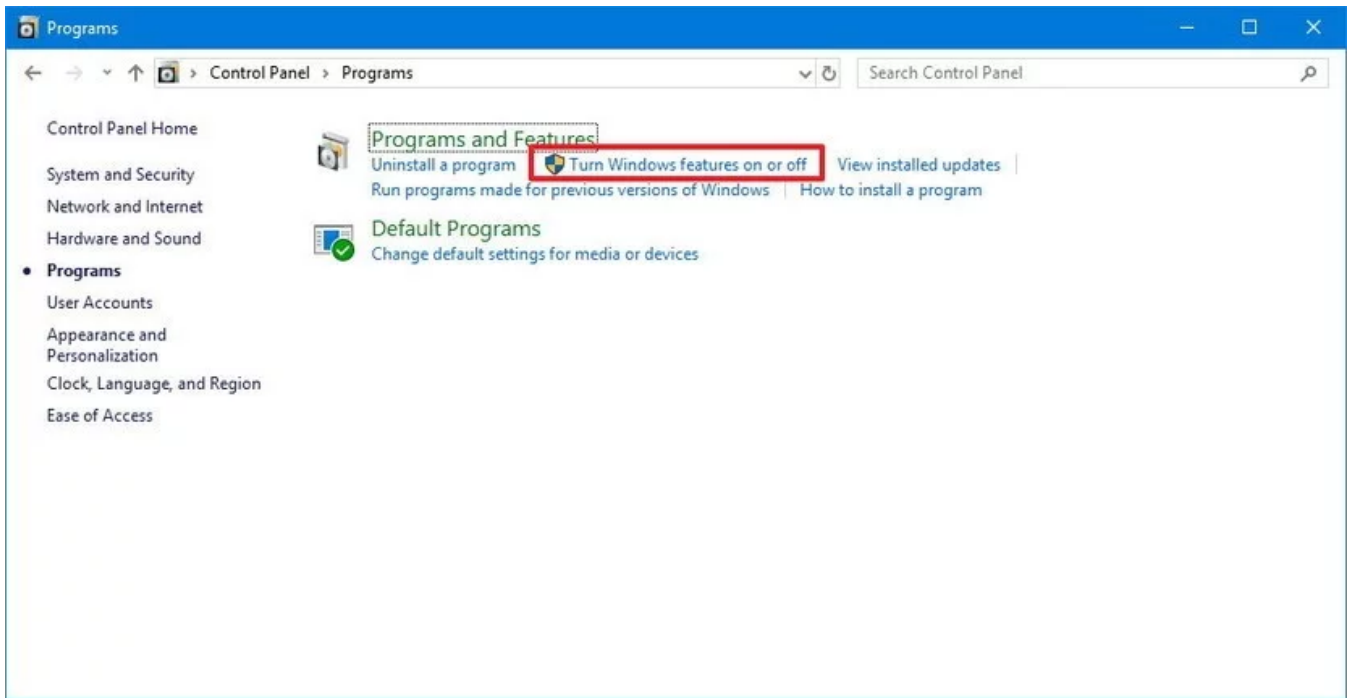
Enabling Hyper-V

Use the following steps to enable Hyper-V on Windows 10:

1. Open **Control Panel**.

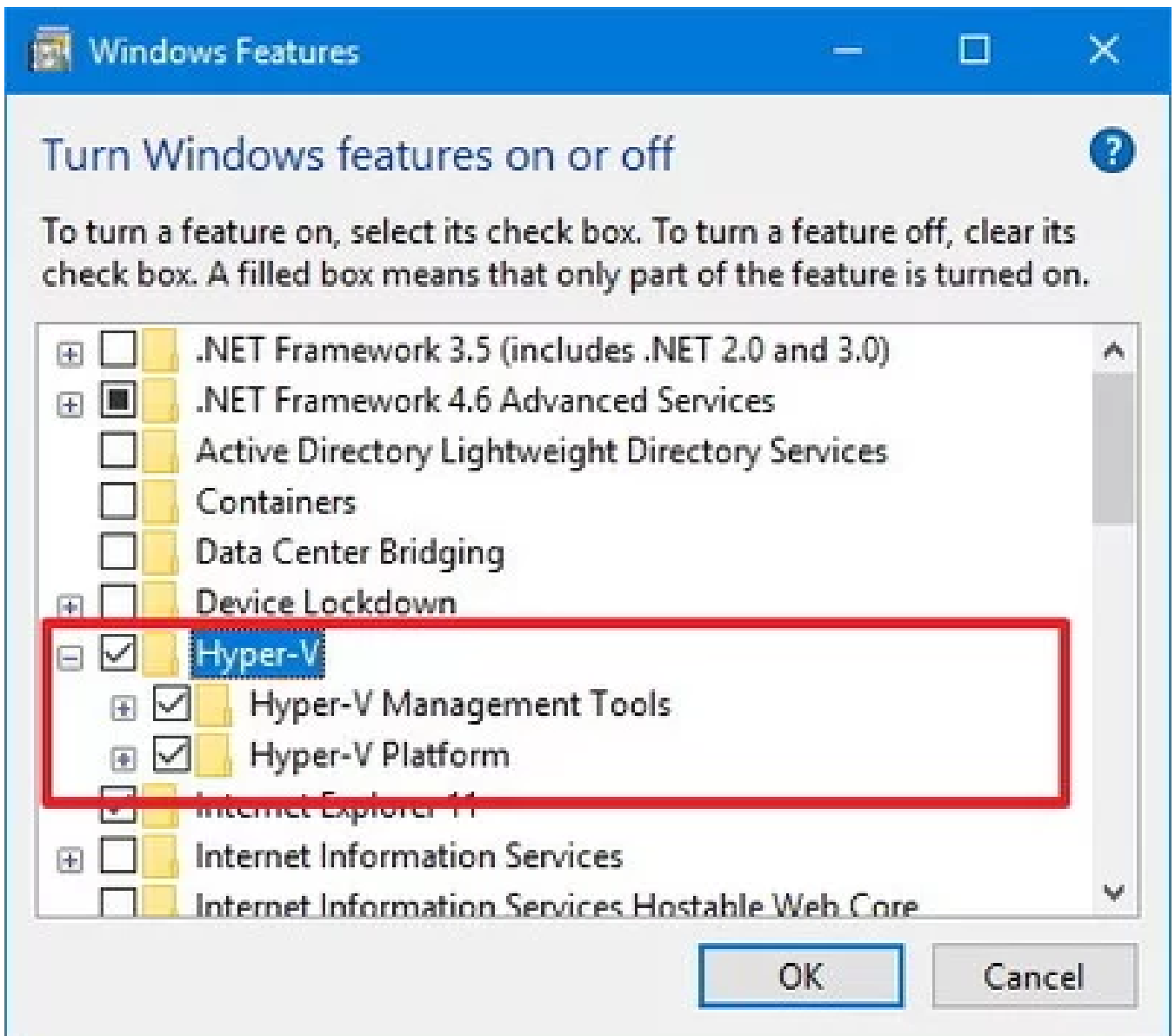


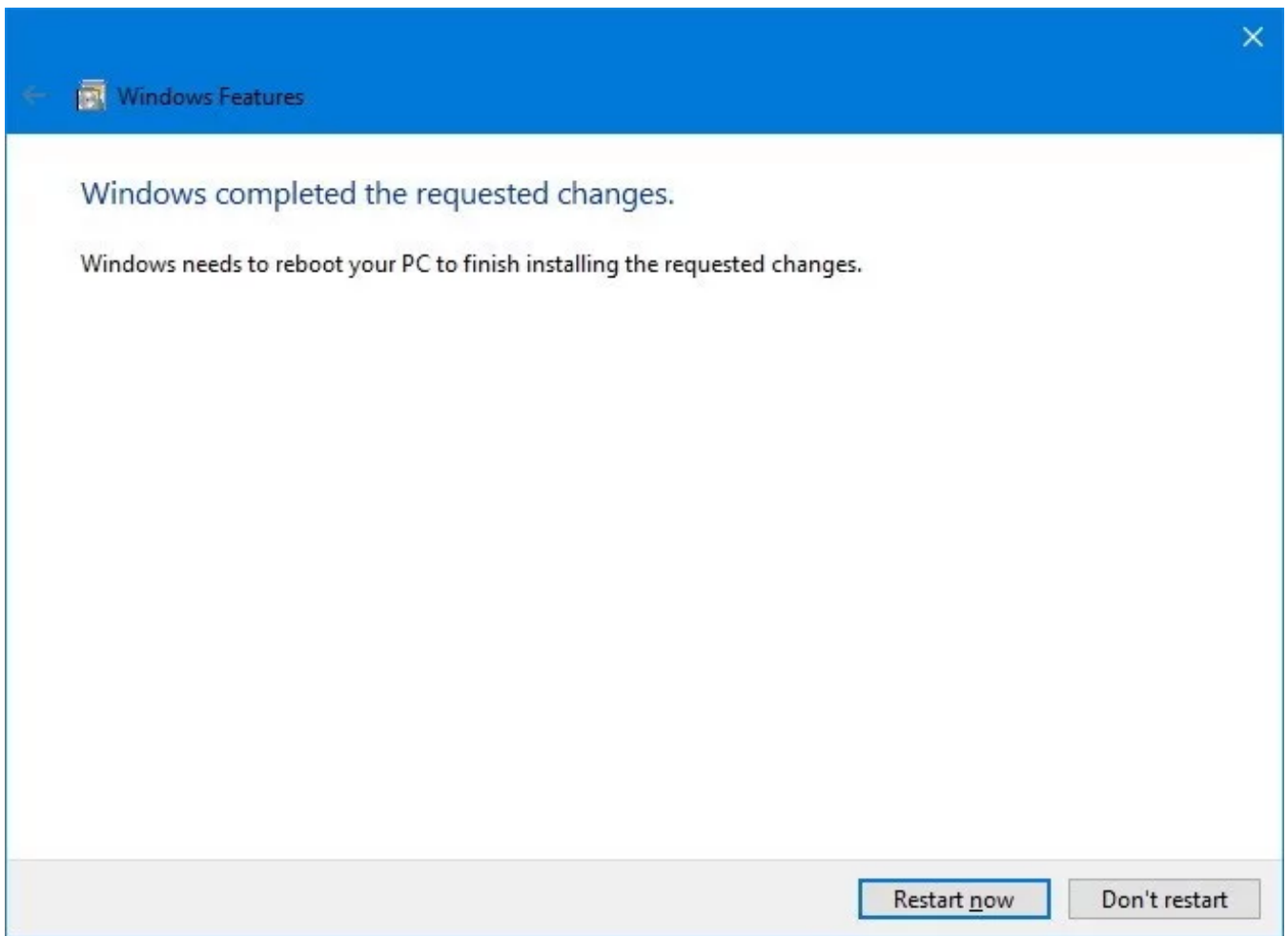
3. Click on **Turn Windows features on or off**.



4. Check the **Hyper-V** option making sure: **Hyper-V Management Tools** and **Hyper-V Platform** are also selected.
5. Click **OK** to begin the process.







How to create a virtual machine using Hyper-V

Once you've completed adding the virtualization layer to Windows 10, you'll need to create a virtual machine for the Linux distribution you want to use.

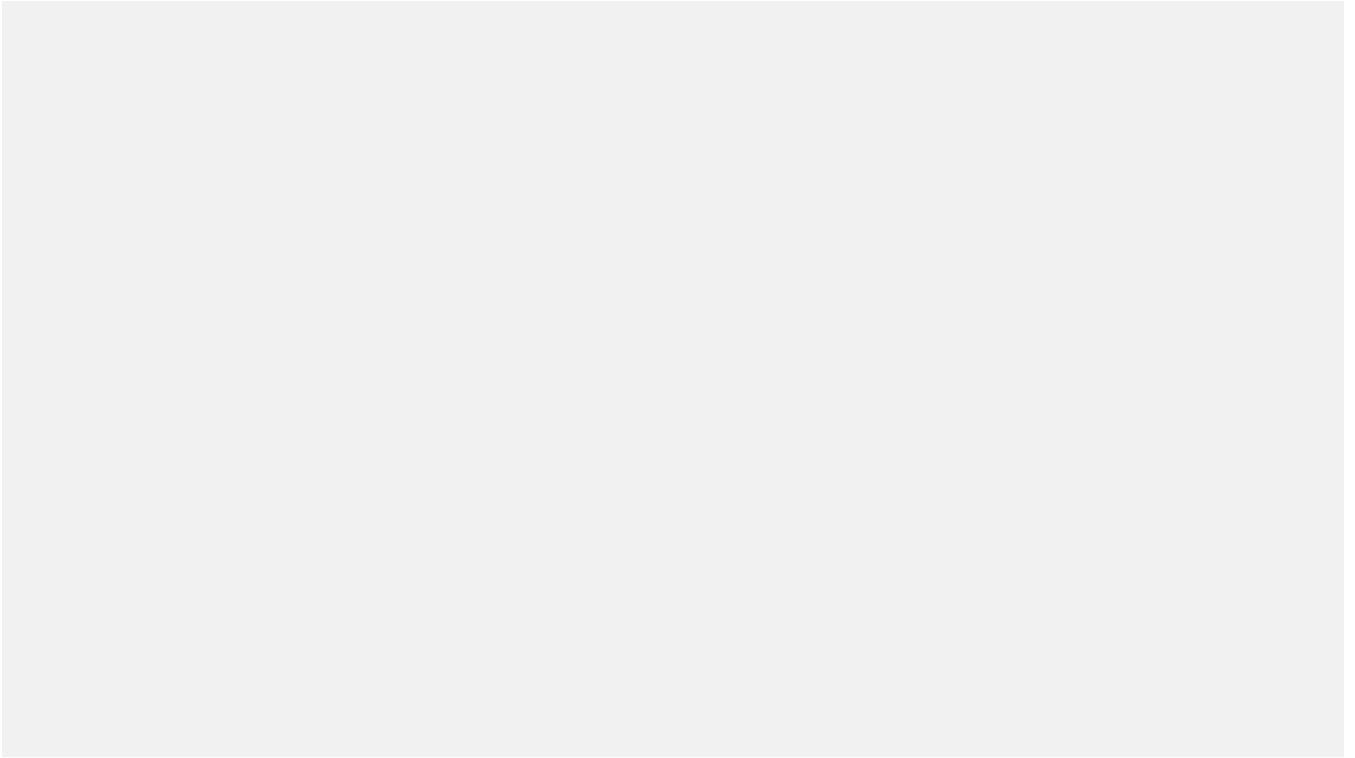


the internet.

Creating a virtual switch

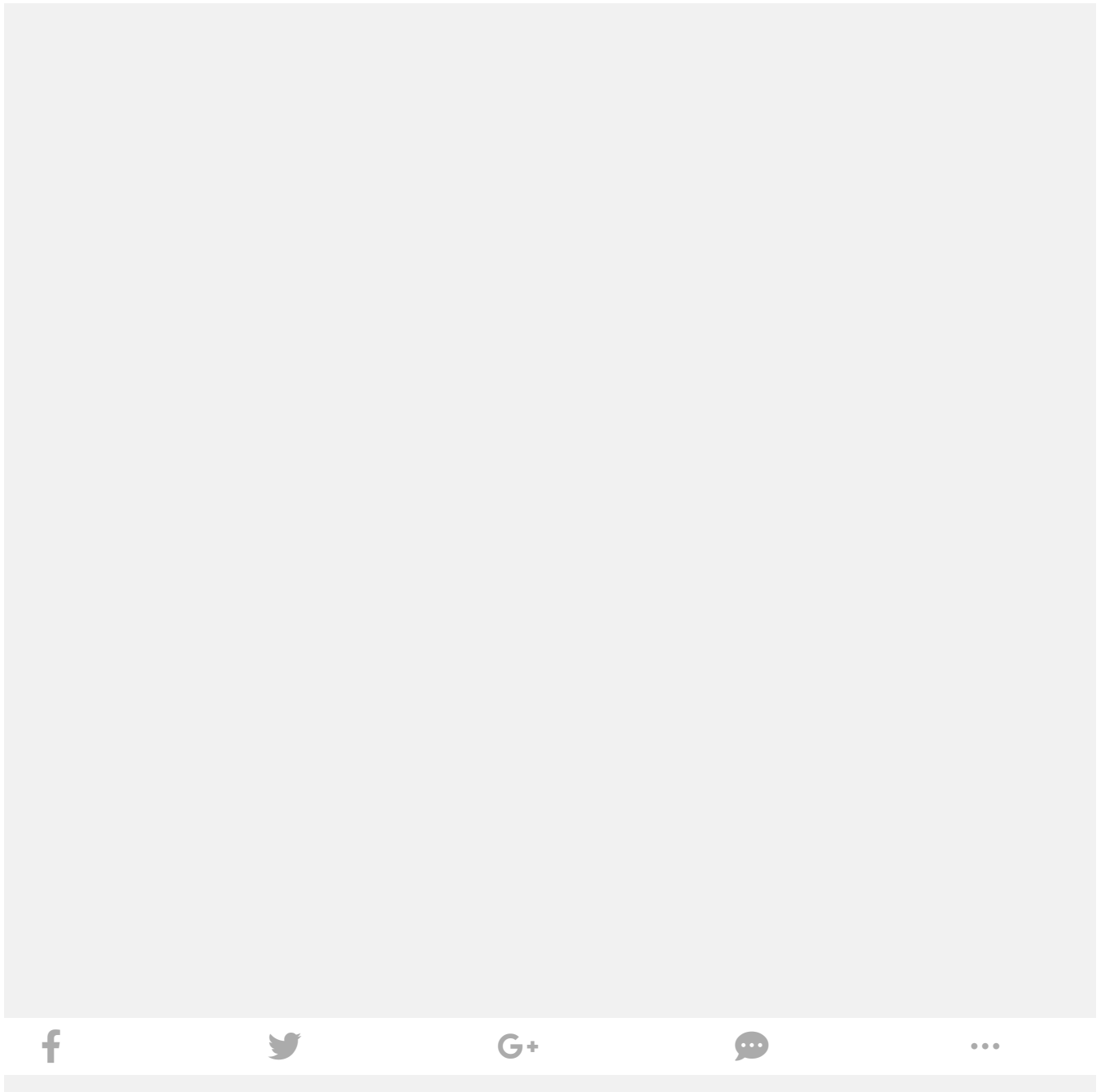
Use the following steps to configure a virtual switch on Hyper-V:

1. Open **Start**.
2. Search for **Hyper-V Manager** and click the top result.
3. Click on the **Action** menu.
4. Select **New** and click on **Virtual Switch Manager**.

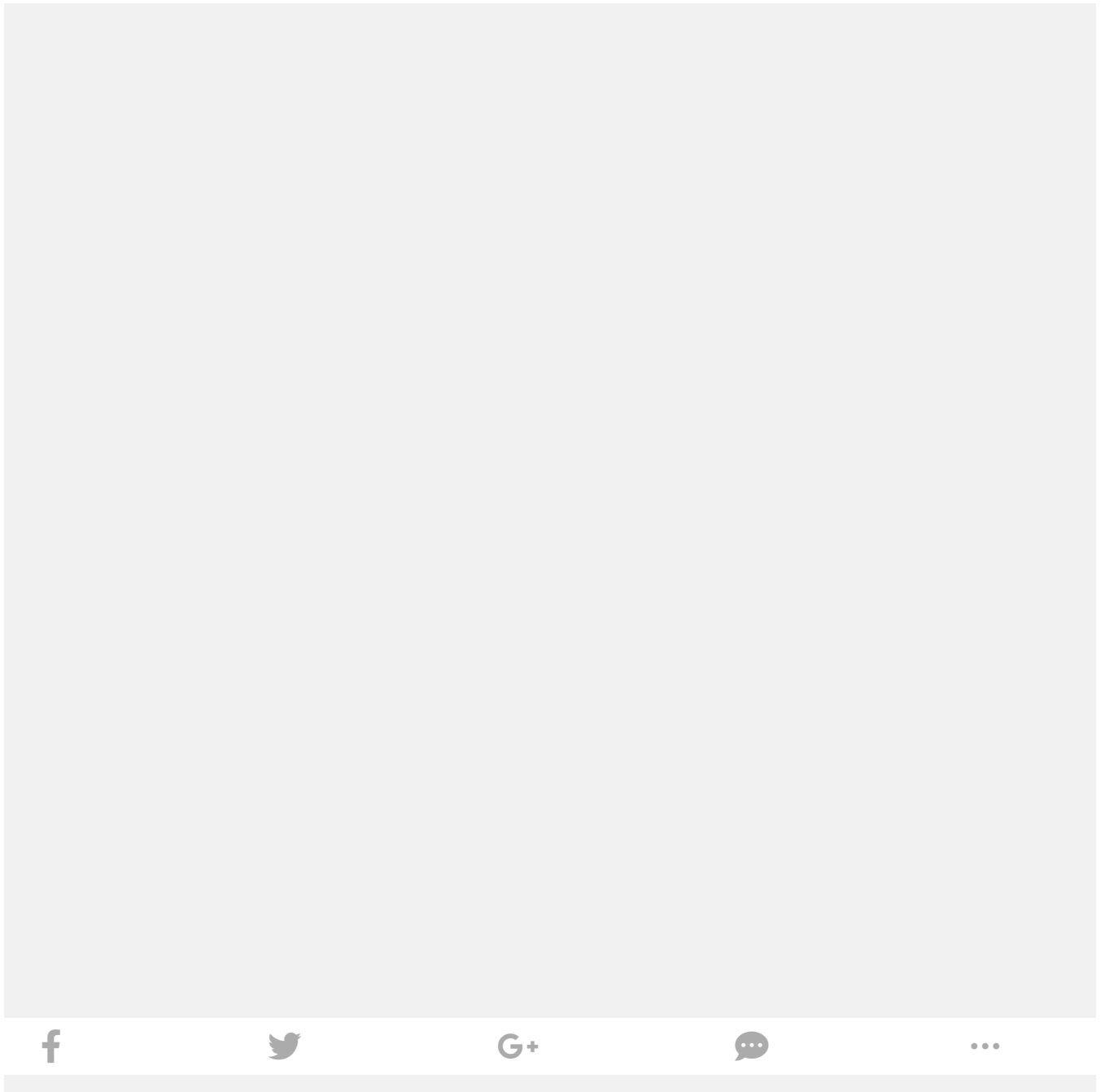


5. On the left pane, select **New virtual network switch**.
6. On the right, select **External**.
7. Click the **Create Virtual Switch** button.





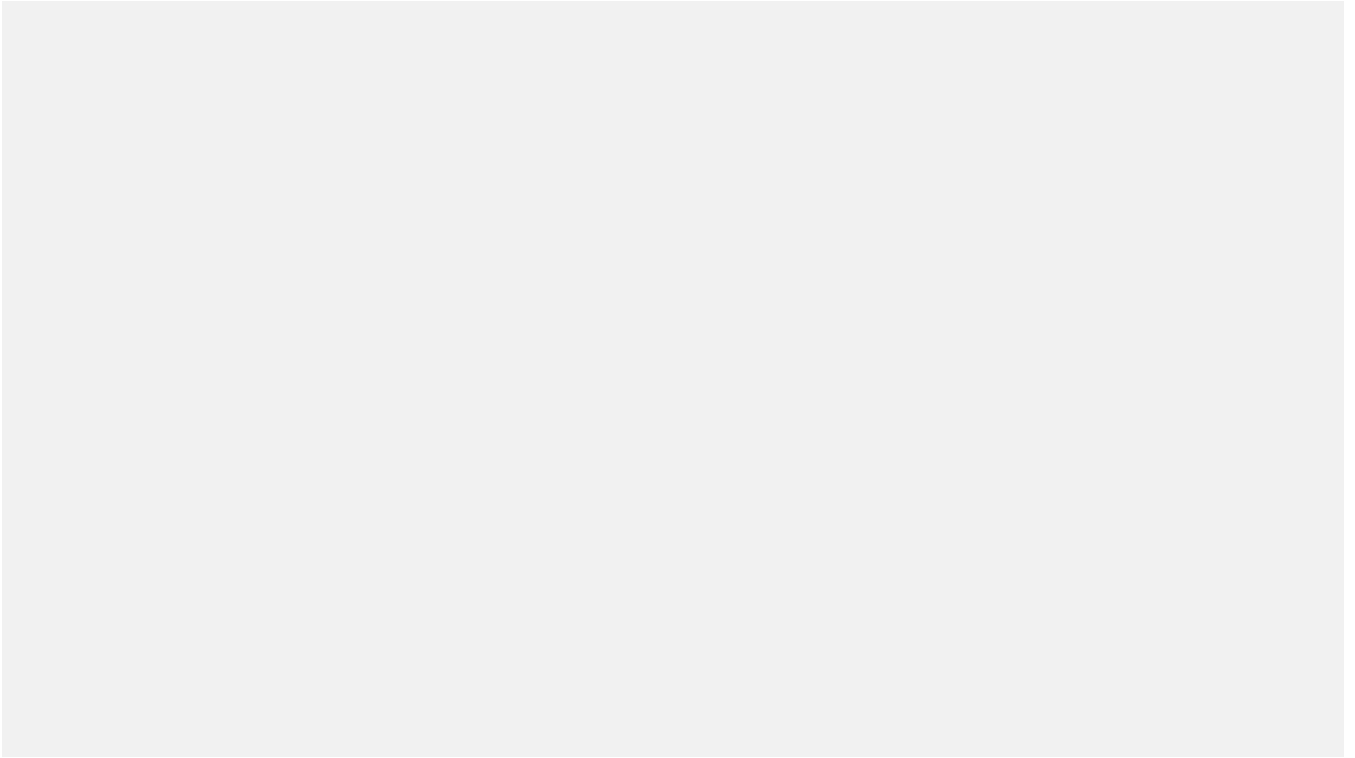
8. Enter a new descriptive name for the switch (e.g., MyVirtualSwitch).
9. Under connection type, make sure your network adapter is select on **External network**.
10. Click **Apply**.
11. Click **OK**.



Creating a virtual machine

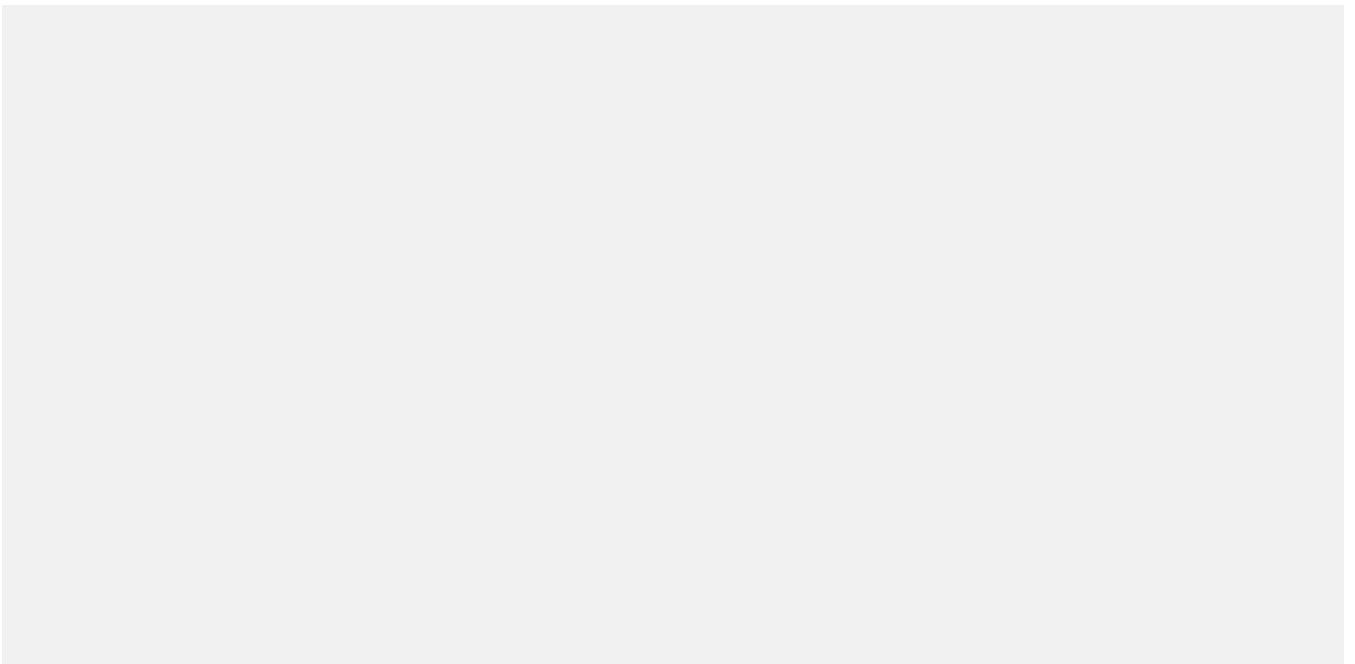
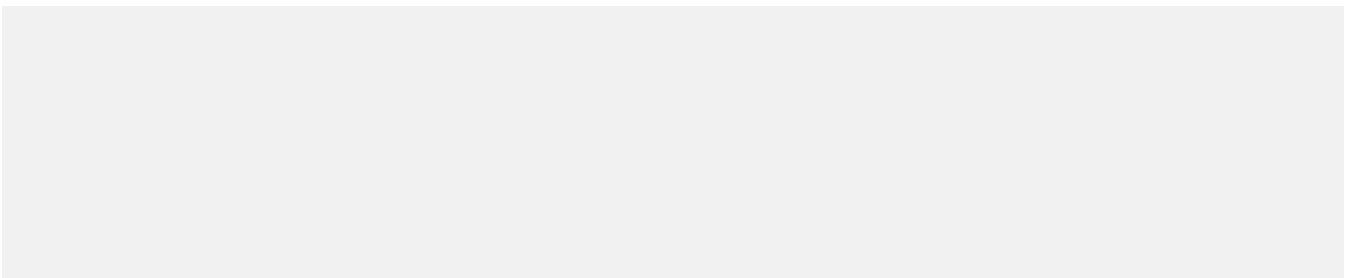
After creating the virtual switch, you can proceed to create a new virtual machine:

1. Open **Start**.
2. Search for **Hyper-V Manager** and click the top result.
3. Click on the **Action** menu.
4. Select **New** and click on **Virtual Machine**.

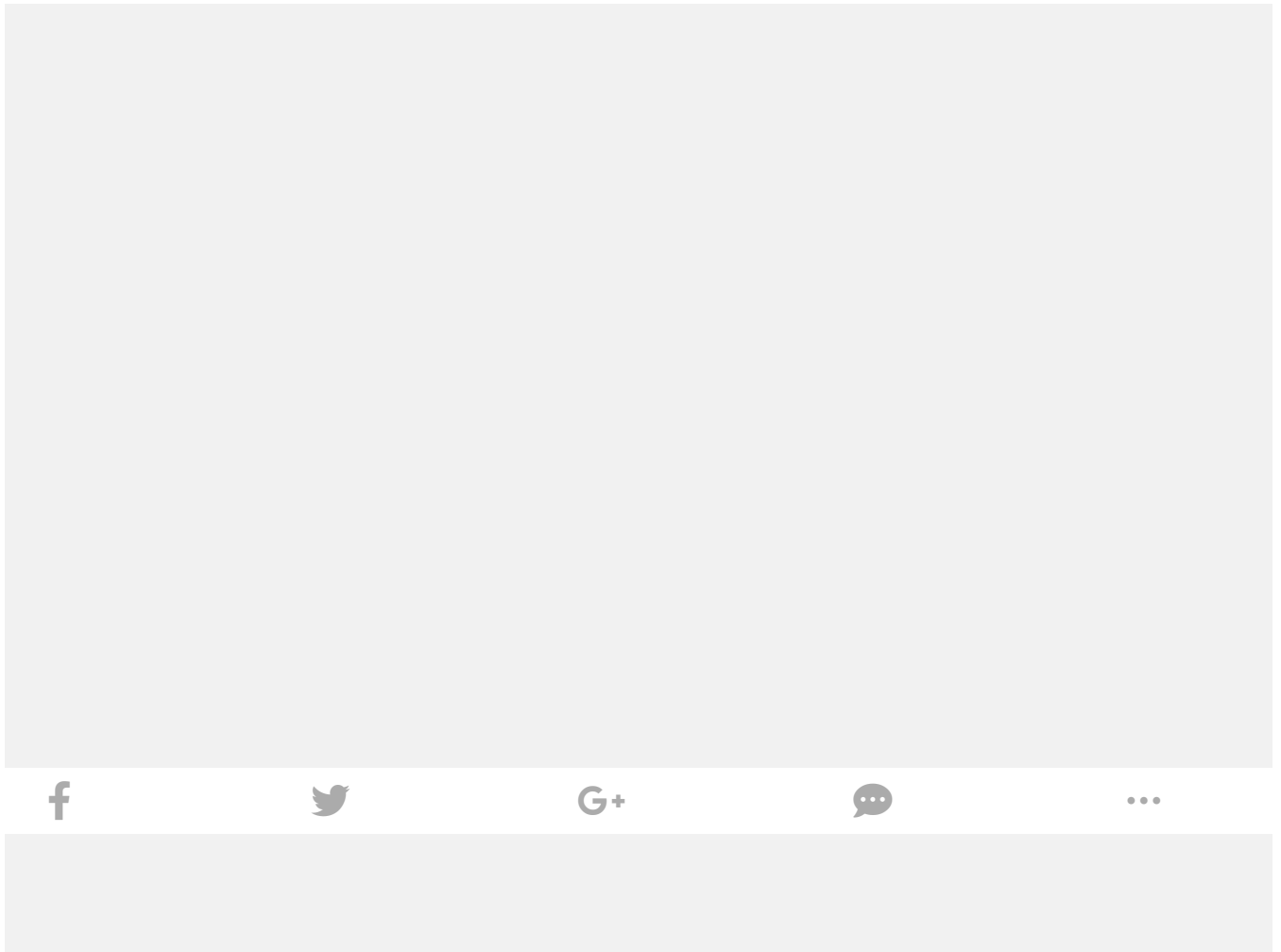


5. Click the **Next** button.

6. Enter a descriptive name for your virtual machine (e.g., vm-ubuntu).



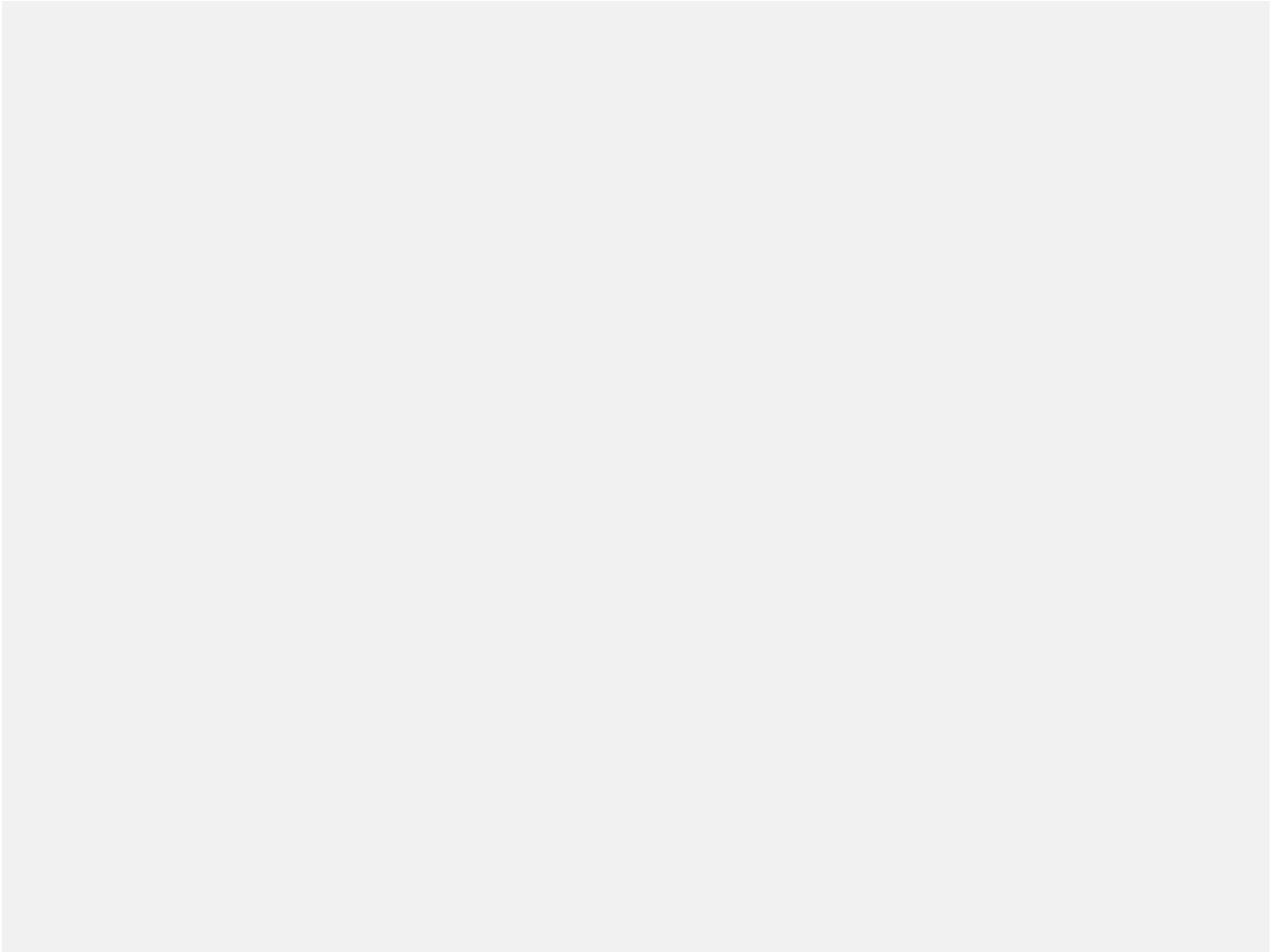
7. Use the default location to store your virtual machine, or check the **Store the virtual machine in a different location** option to select a different path.
8. Click **Next** to continue.
9. You can leave the default **Generation 1** option selected. Or you can select **Generation 2** if you want a UEFI-based firmware.
10. Click **Next**.



11. Select the amount of RAM to allocate for your virtual machine. In the case of Ubuntu, you need a minimum of 2GB of memory.

You can allocate as much memory as you want, but this setting will always depend on the physical memory available on your computer.

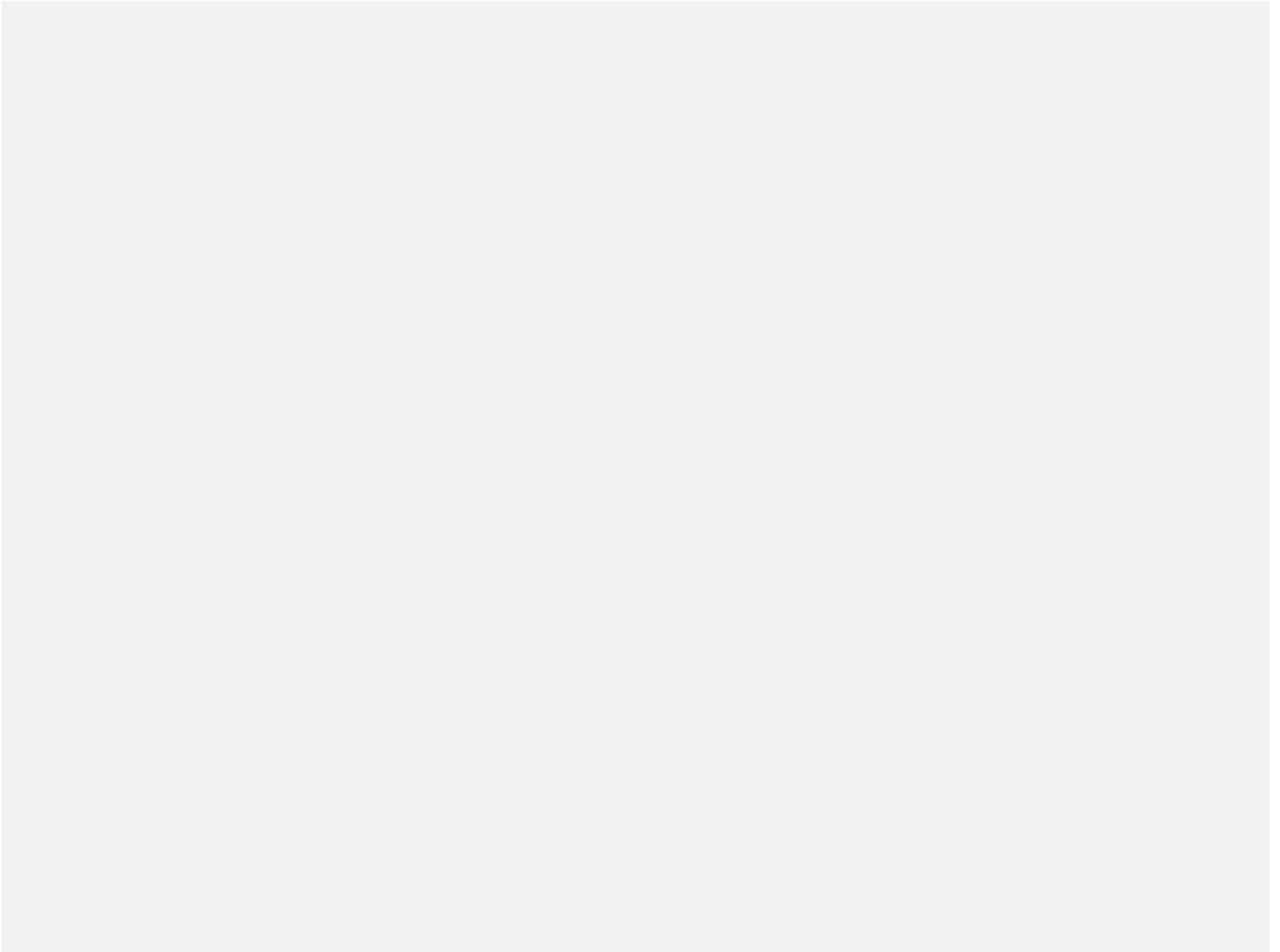
12. Click **Next**.



13. Use the drop-down menu to select the virtual switch you created earlier.

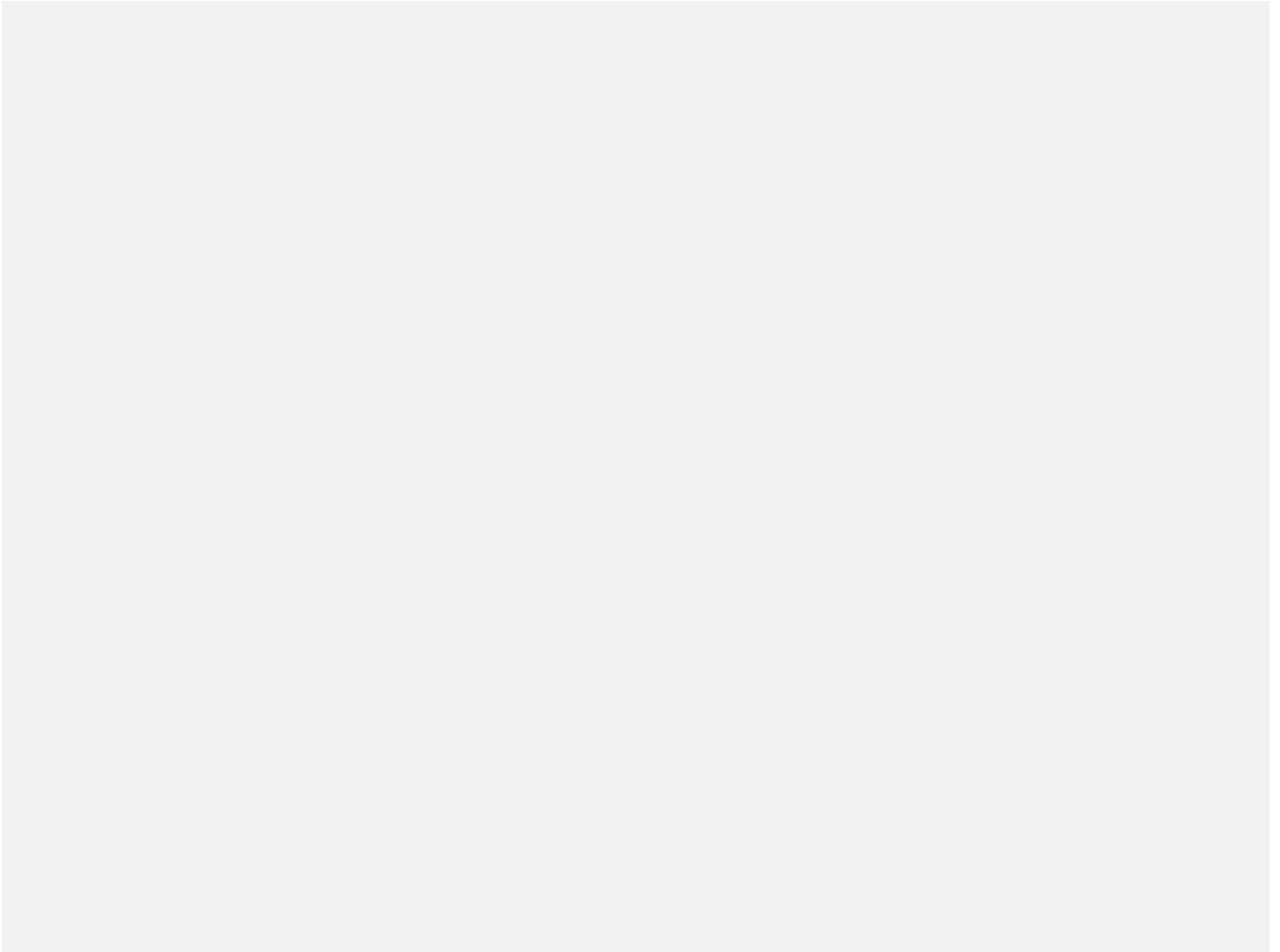
14. Click **Next**.





- 15.** You can leave all the default settings to create a virtual hard drive, but under **Size** make sure to allocated at least **25GB** of storage, which is the minimum required to run Ubuntu.
- 16.** Click **Next** to continue.



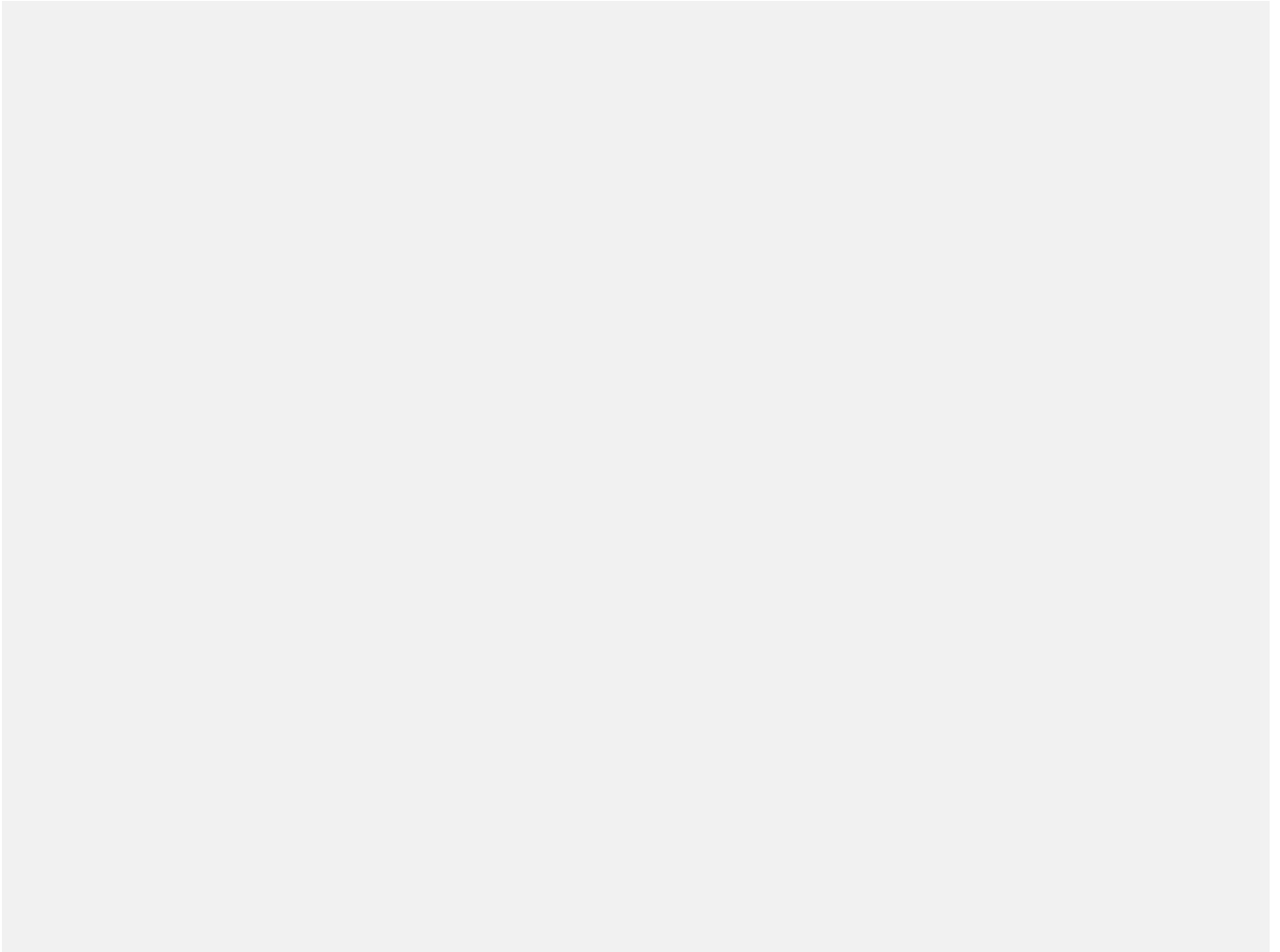


17. On Installation options, select the **Install an operating system from a bootable CD/DVD-ROM** option.

18. Select the **Image file (.iso)** option.



20. Click **Next**.

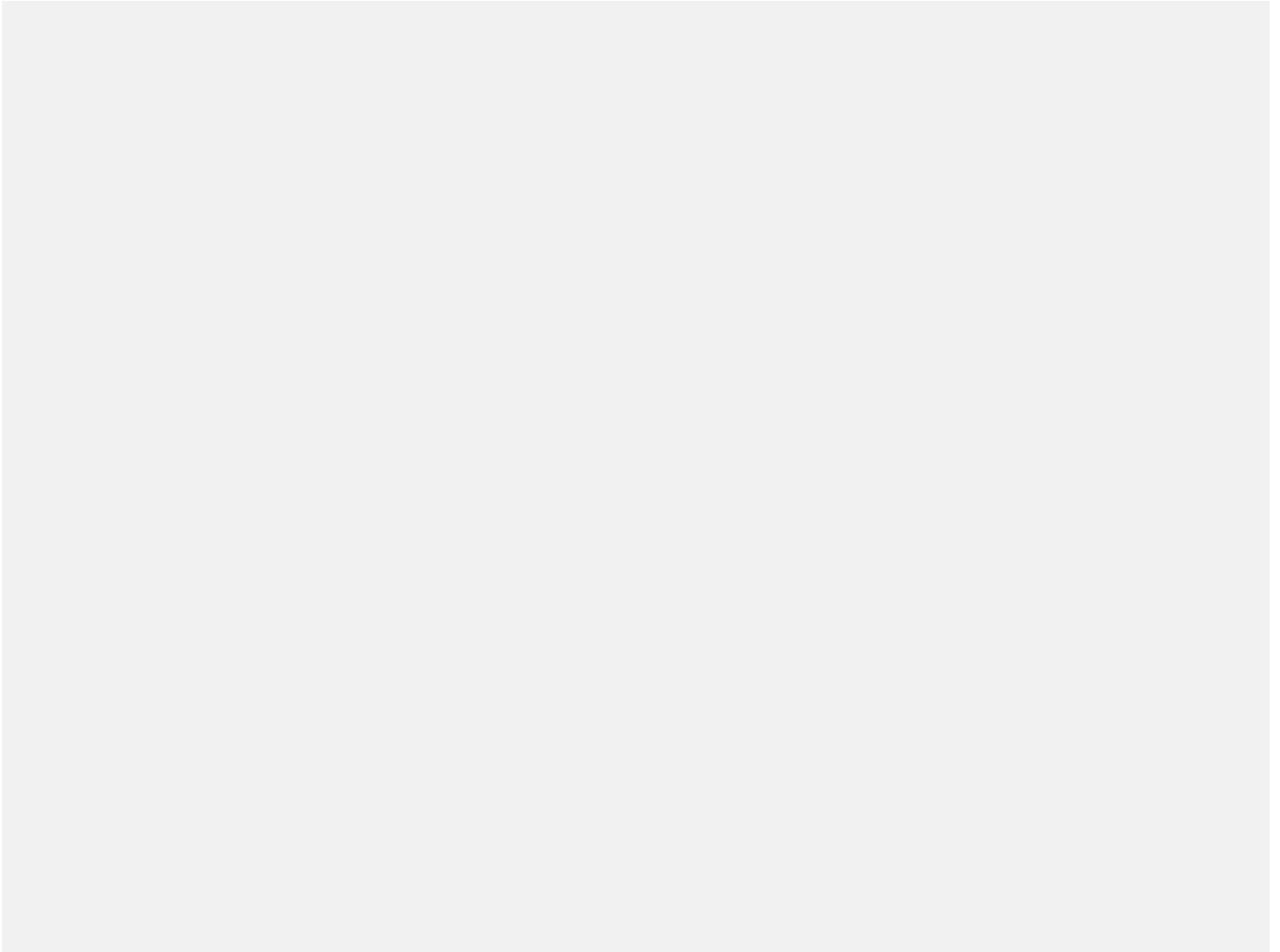


21. Click **Finish**.

How to install Ubuntu Linux using Hyper-V on Windows 10

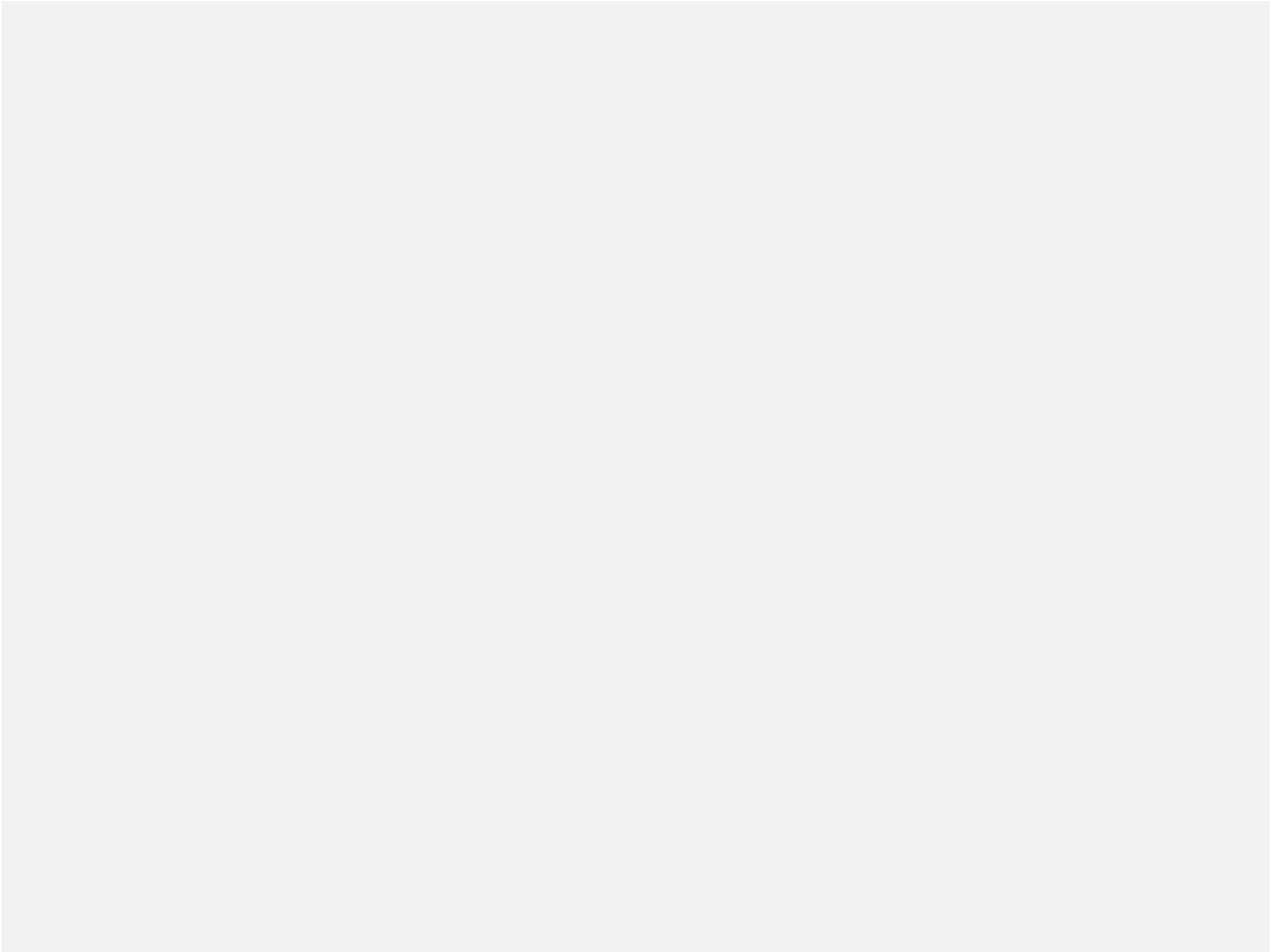


1. On Hyper-V Manager, under Virtual Machine, right-click the newly created device, and select **Connect**.



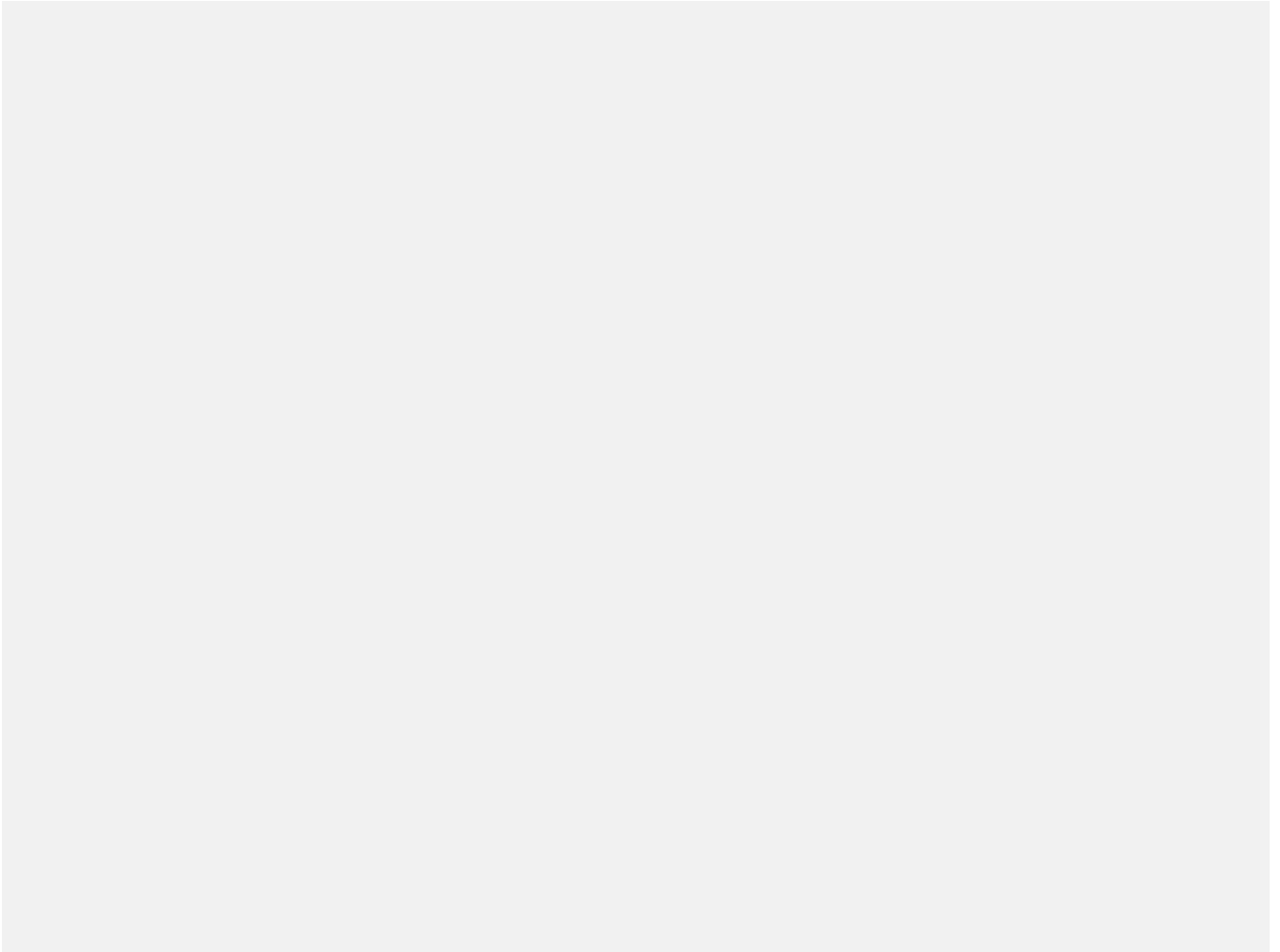
2. Click the **Start** (power) button.





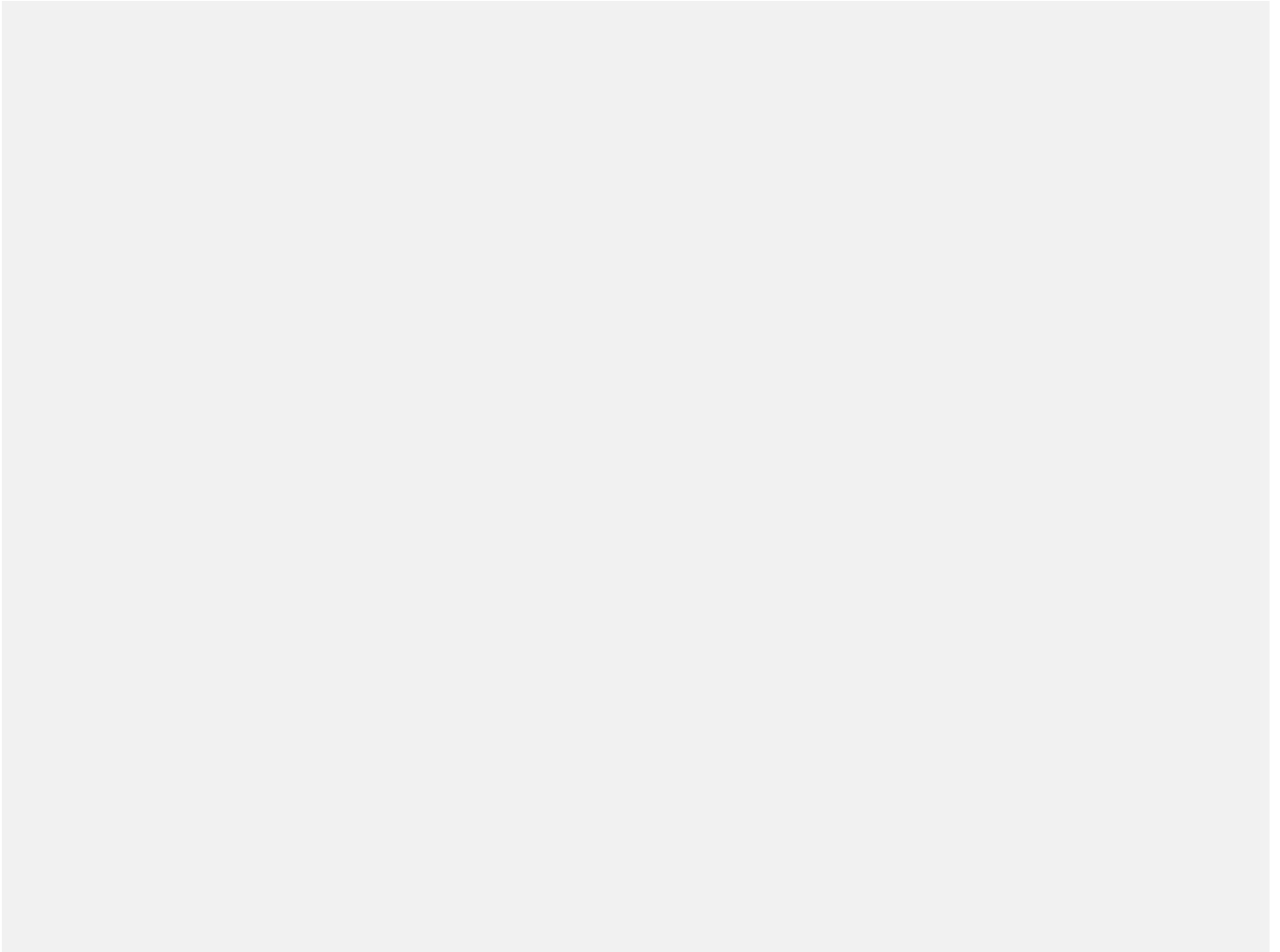
3. Select your language.
4. Click the **Install Ubuntu** button.





5. Check the **Install third-party software for graphics** and **Wi-Fi hardware, Flash, MP3 and other media** option.
6. Click **Continue**.

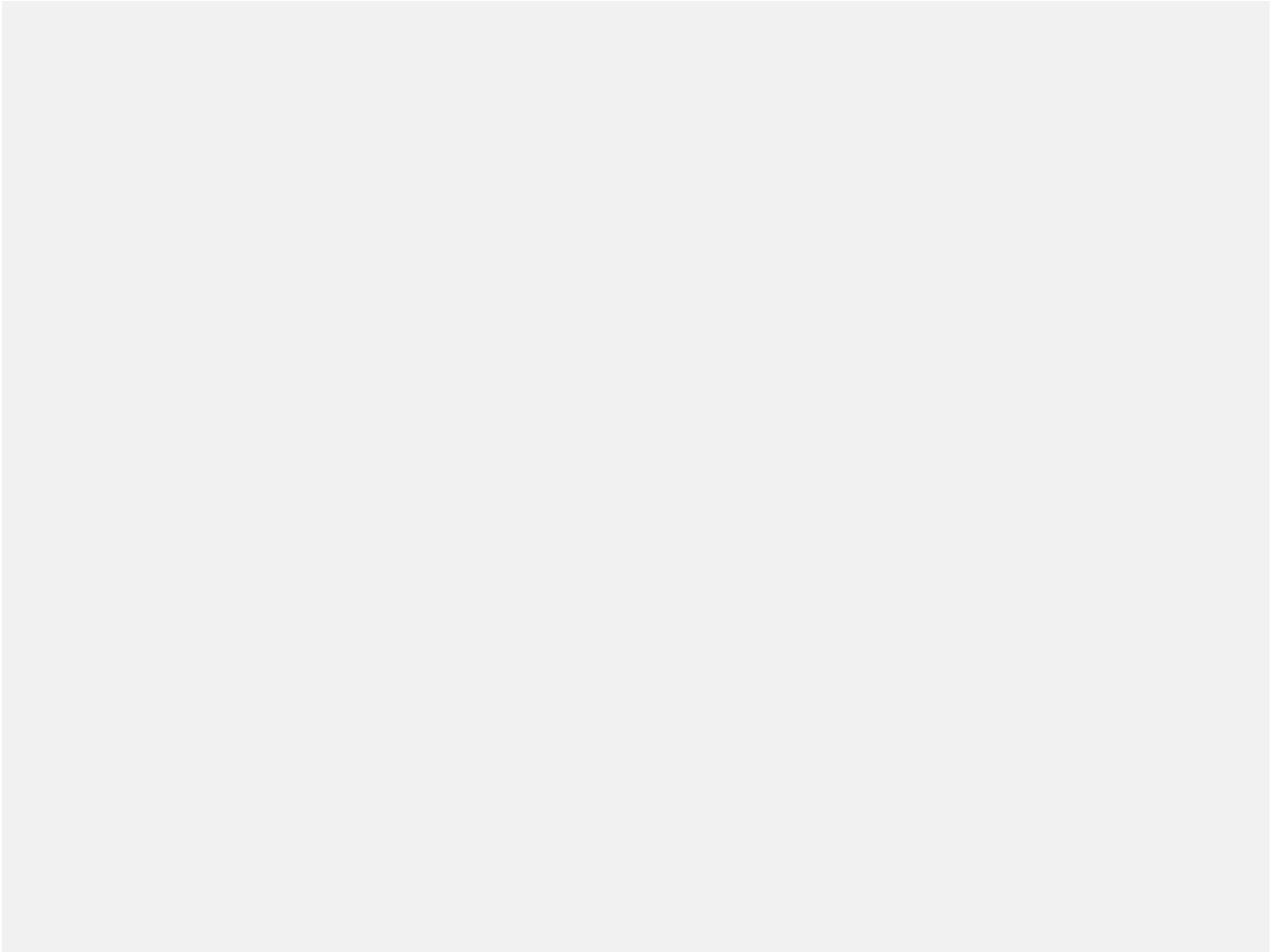




7. Select the **Something else** option.

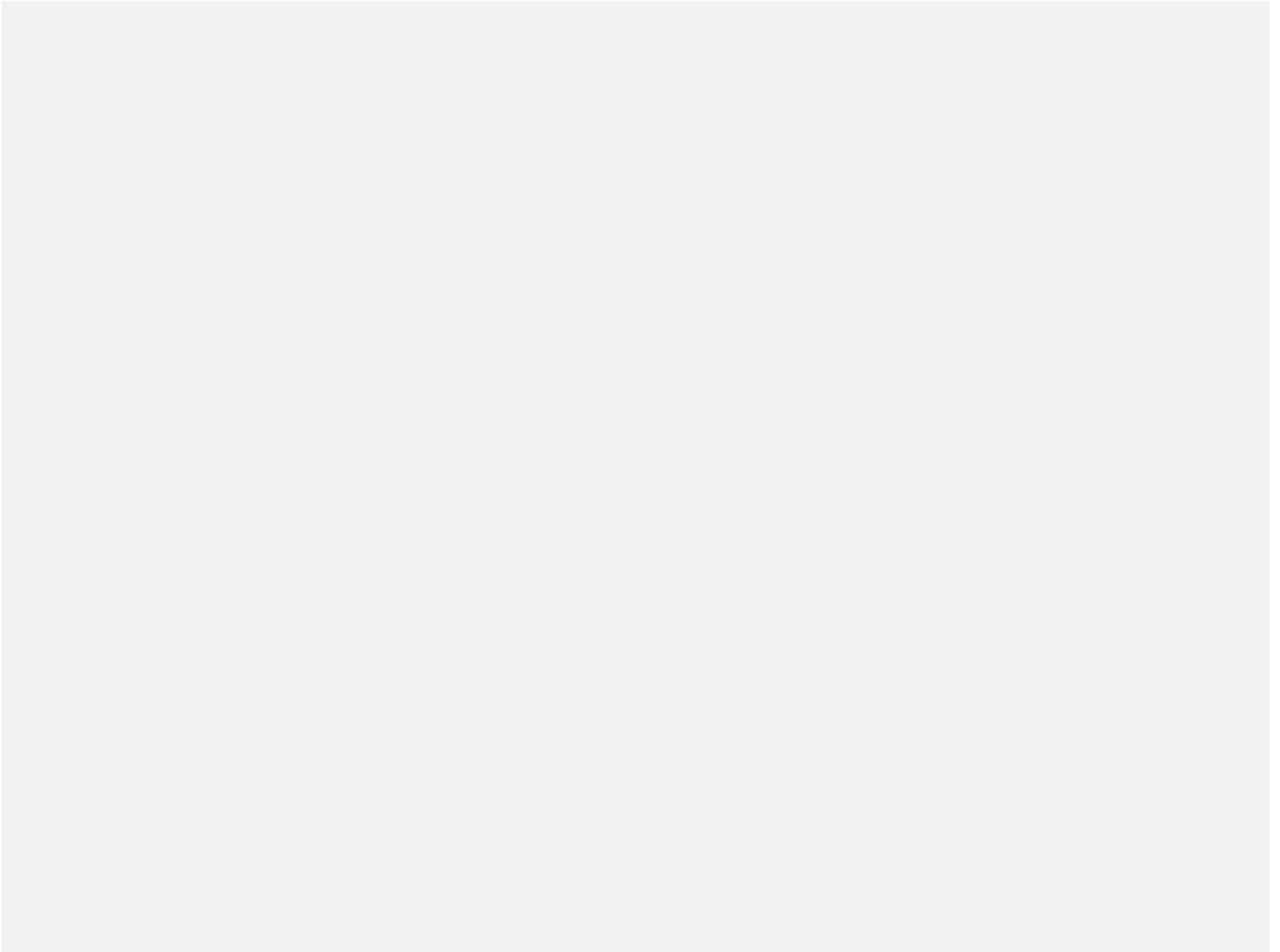
8. Click **Continue**.





9. Double-click the **/dev/sda** drive.

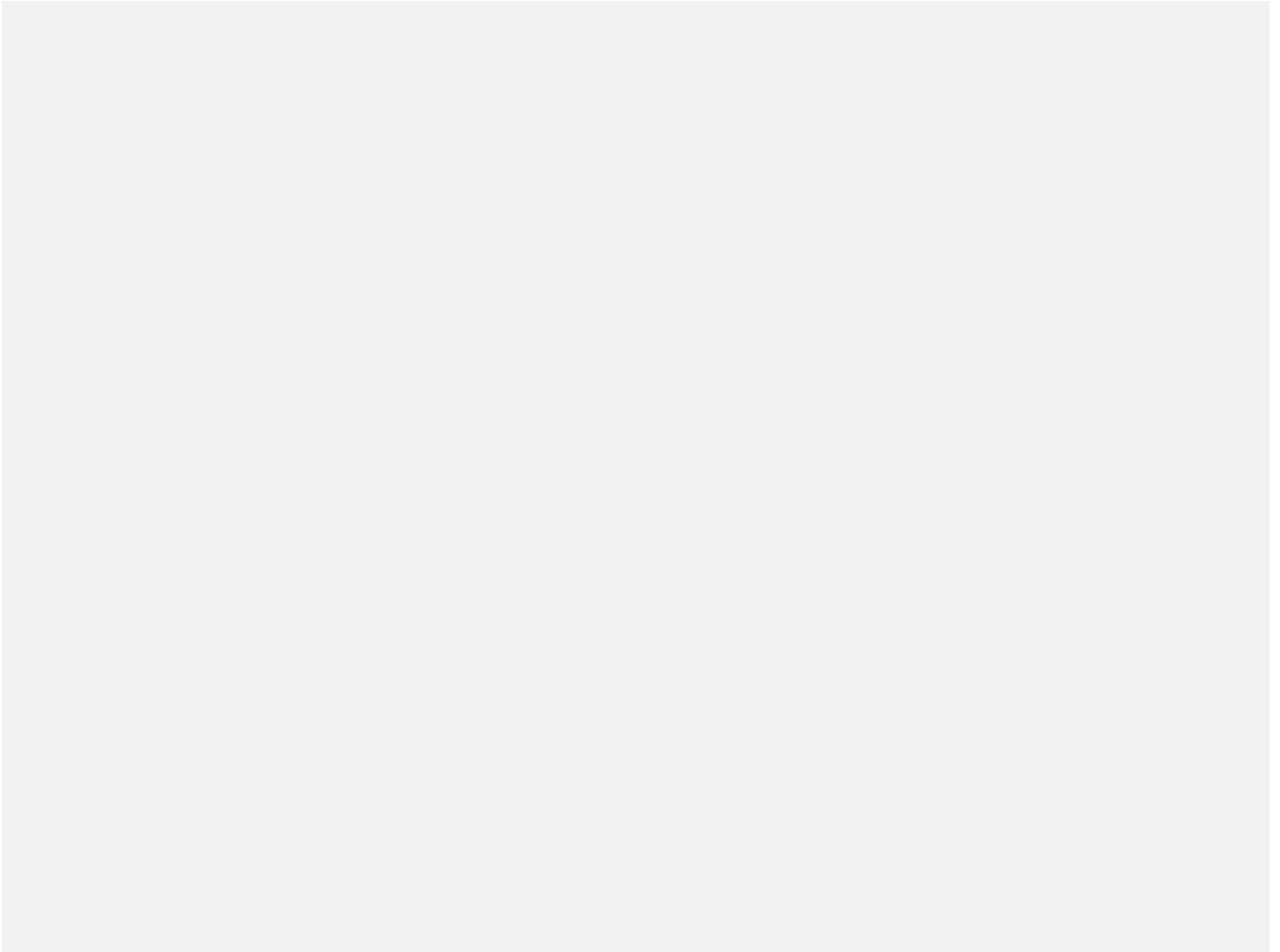




10. Click **Continue**.

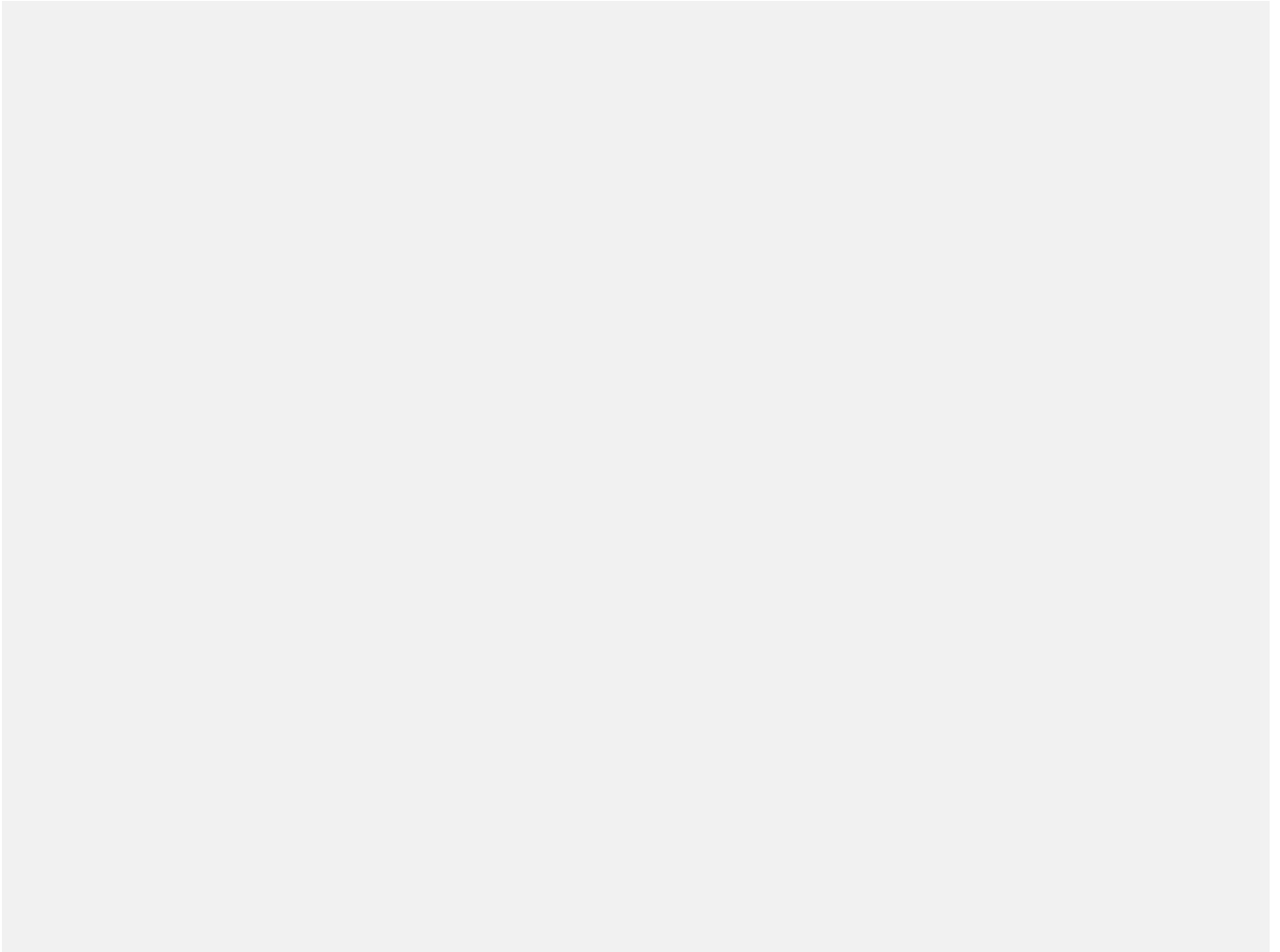
11. Double-click **free space**.





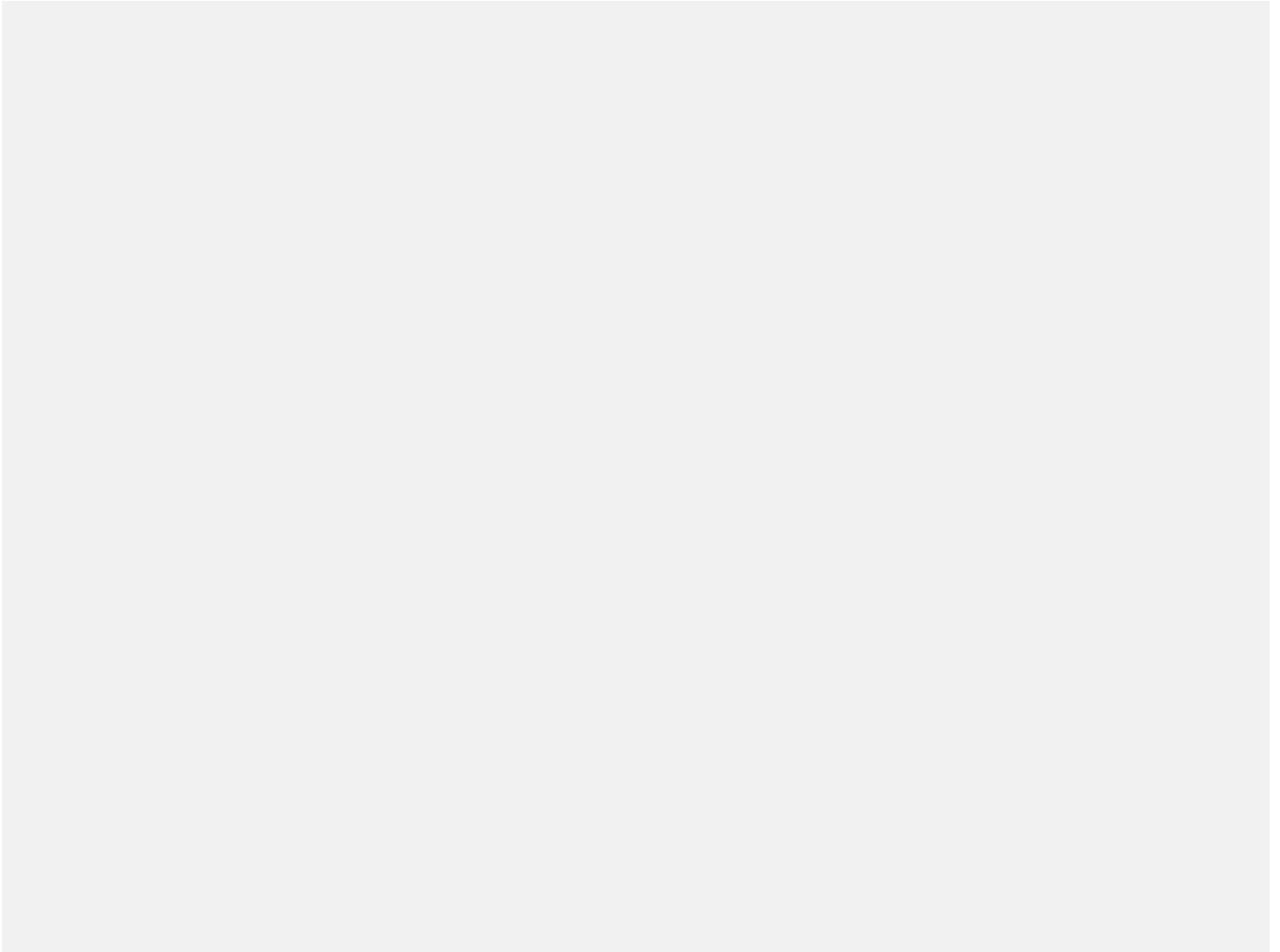
12. Under "Use as," use the drop-down menu and select **Swap area** to create a swap partition.
13. Under "Size," select the amount of space for the swap partition, which should be about 2x of the amount of RAM allocated for the virtual machine.





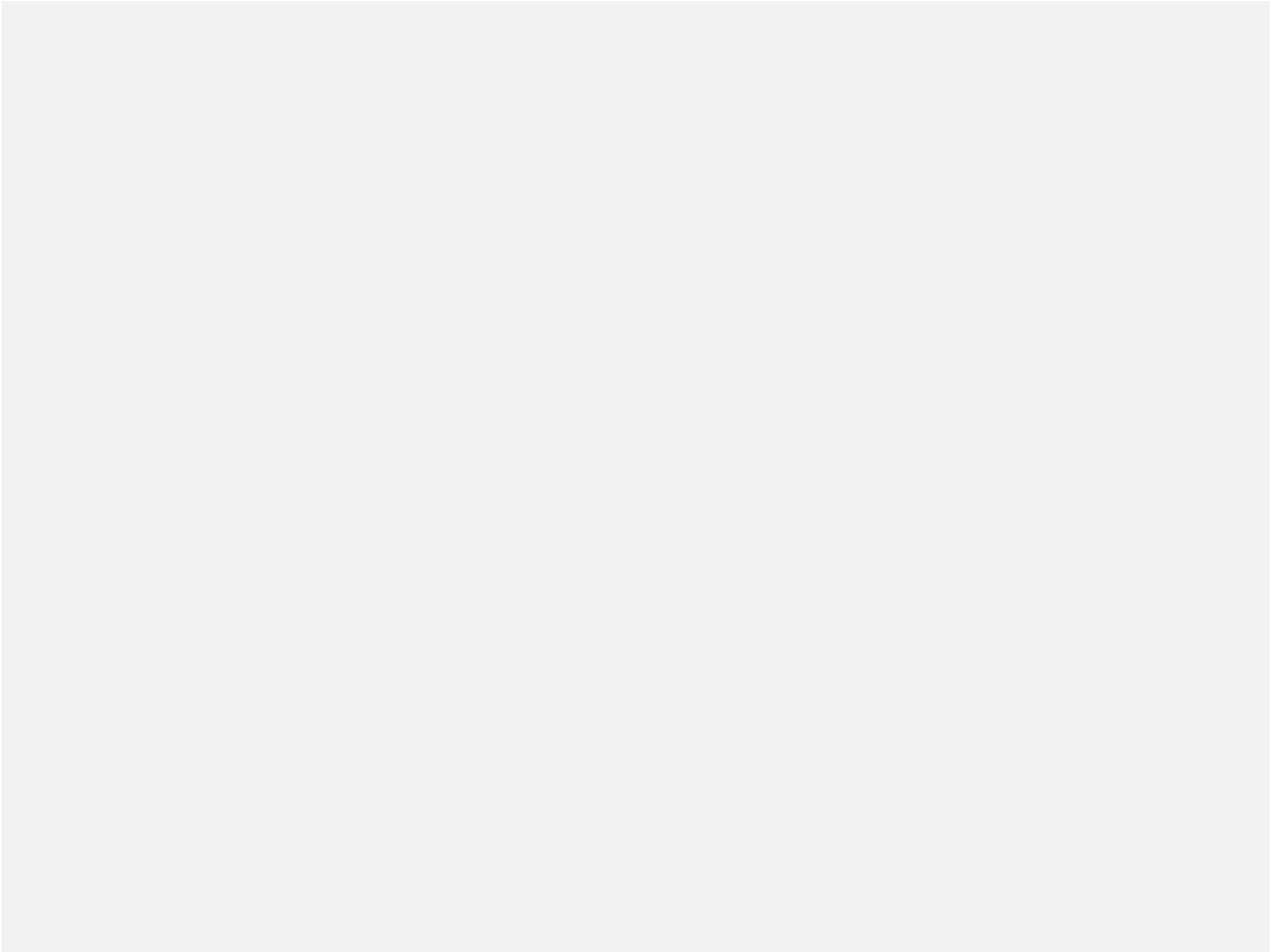
15. Double-click **free space** again.





16. Select the amount of space to allocate for the installation.
17. Under "Mount point," use the drop-down menu and select root /.
18. Click **OK**.

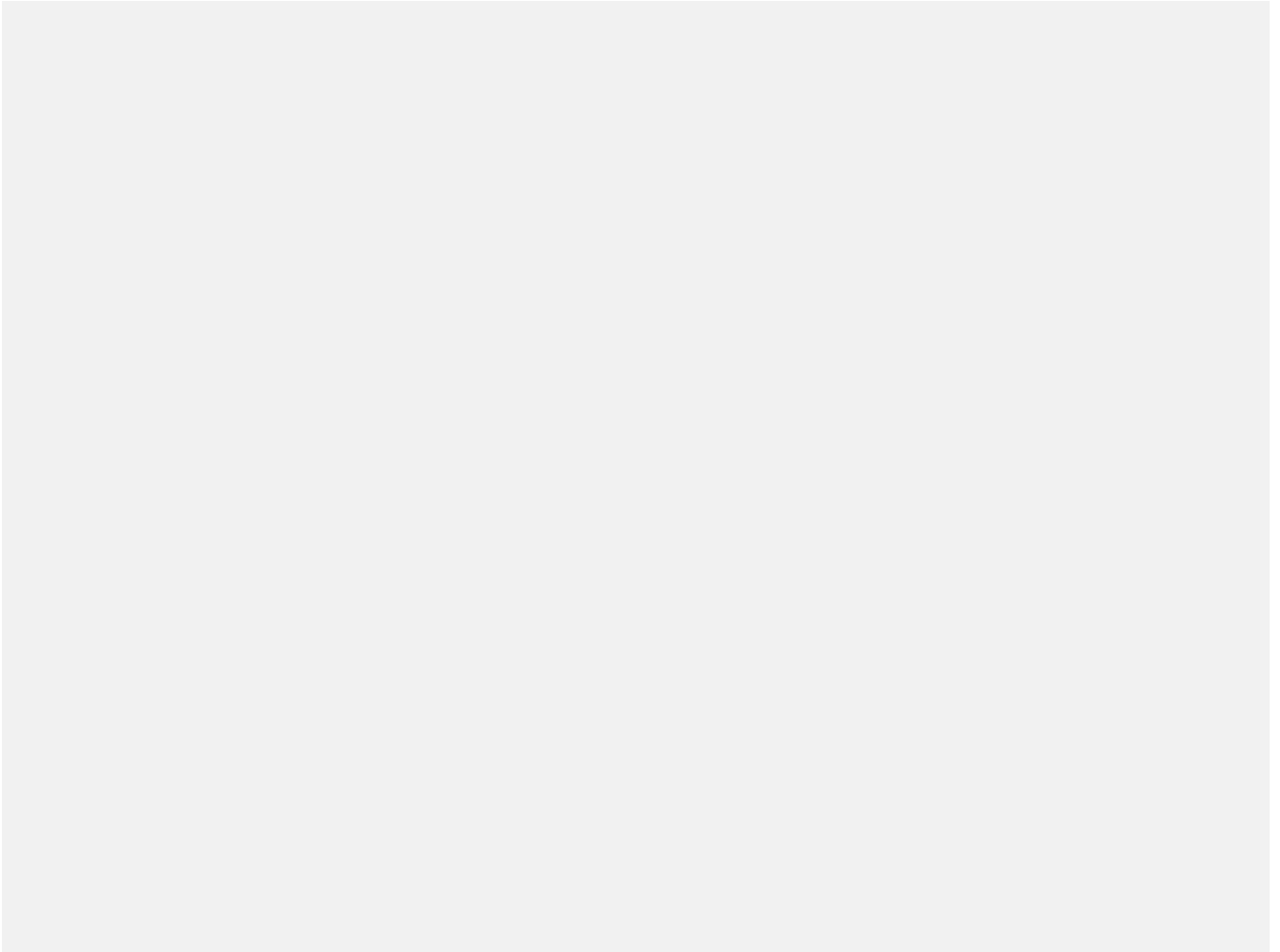




19. Select the **ext4** partition from the list.

20. Click the **Install Now** button.



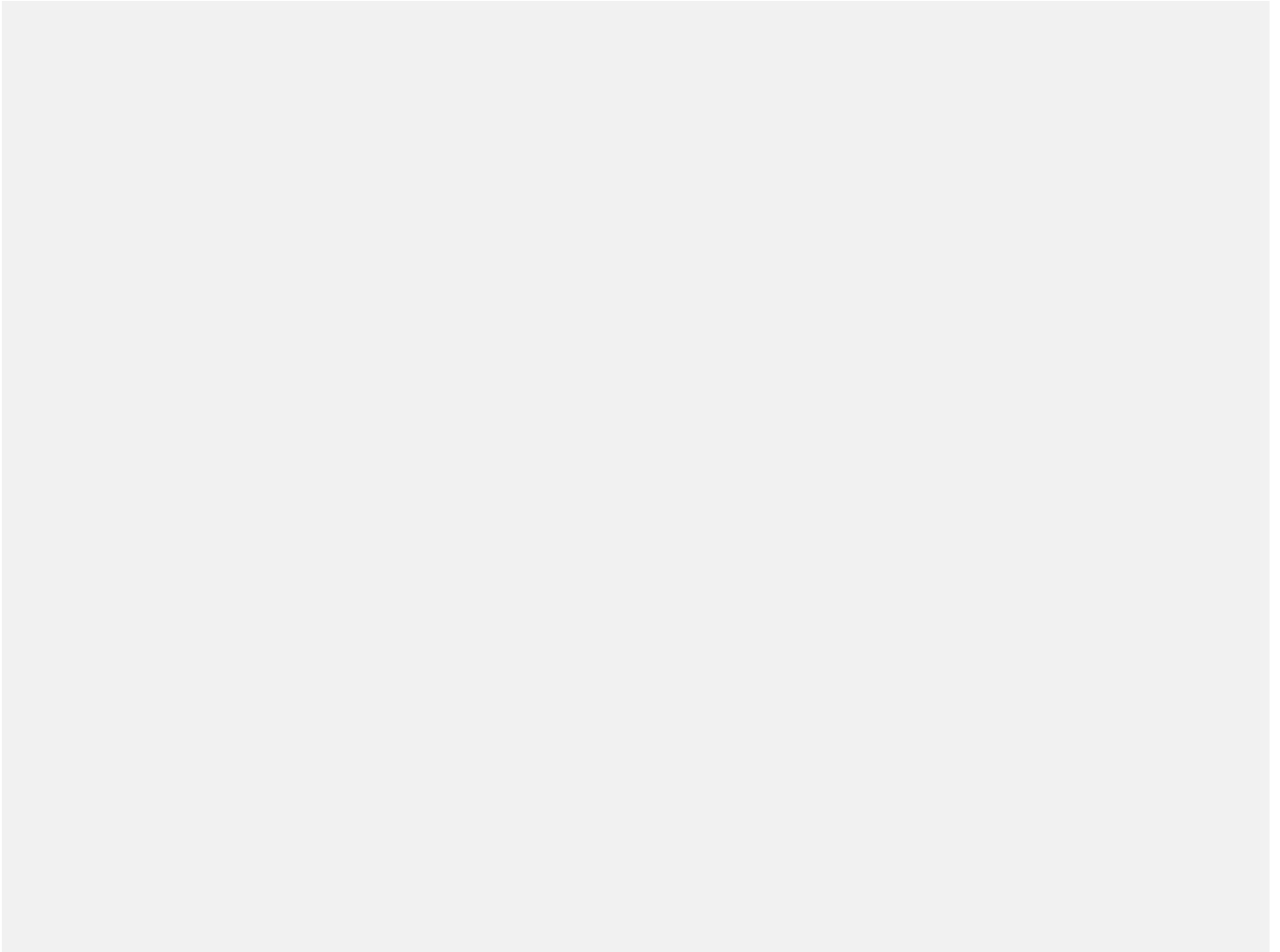


21. Click **Continue** to install Ubuntu.

22. Select your time zone.

23. Click **Continue**.

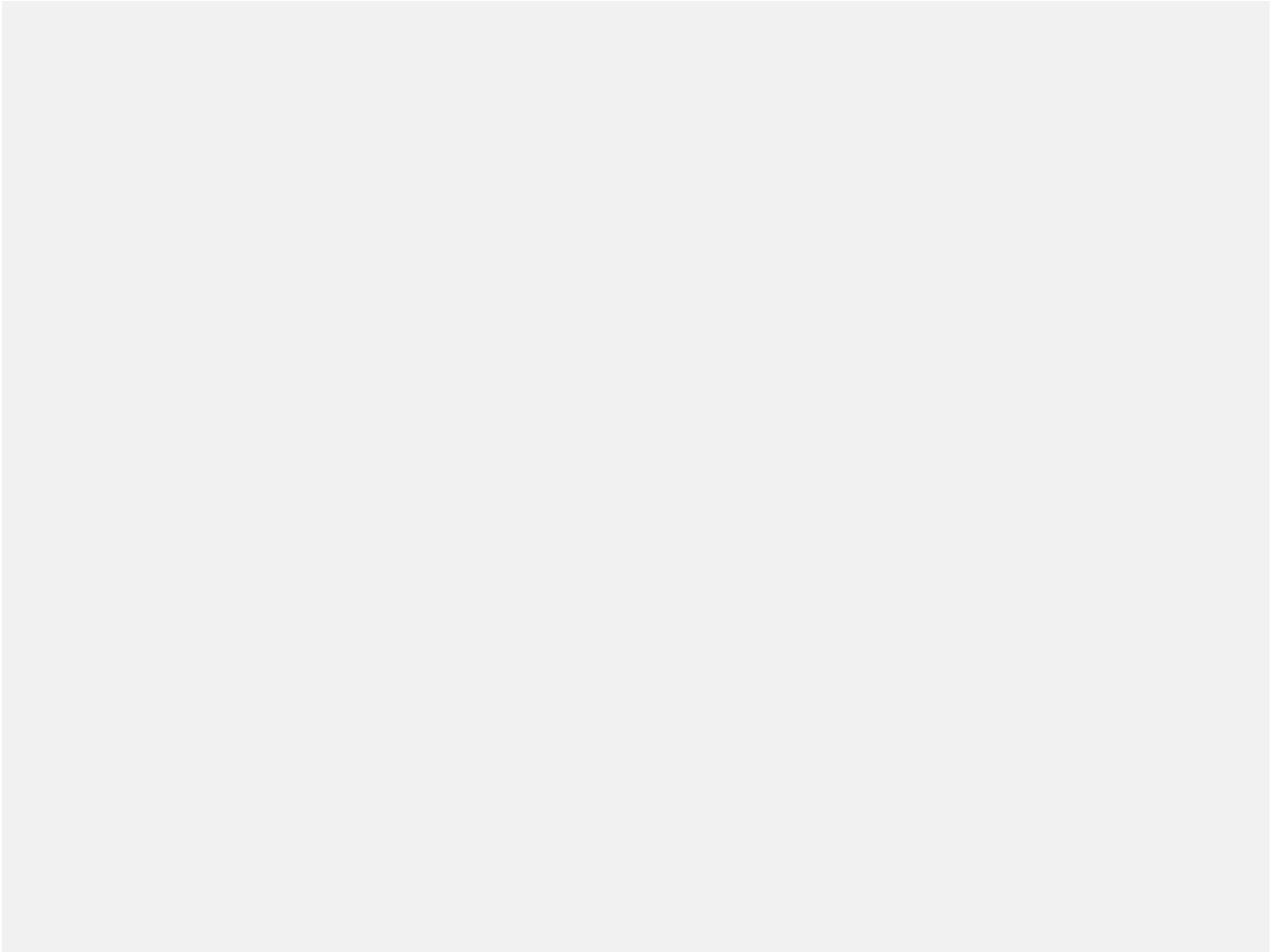




24. Select the keyboard layout.

25. Click **Continue**.

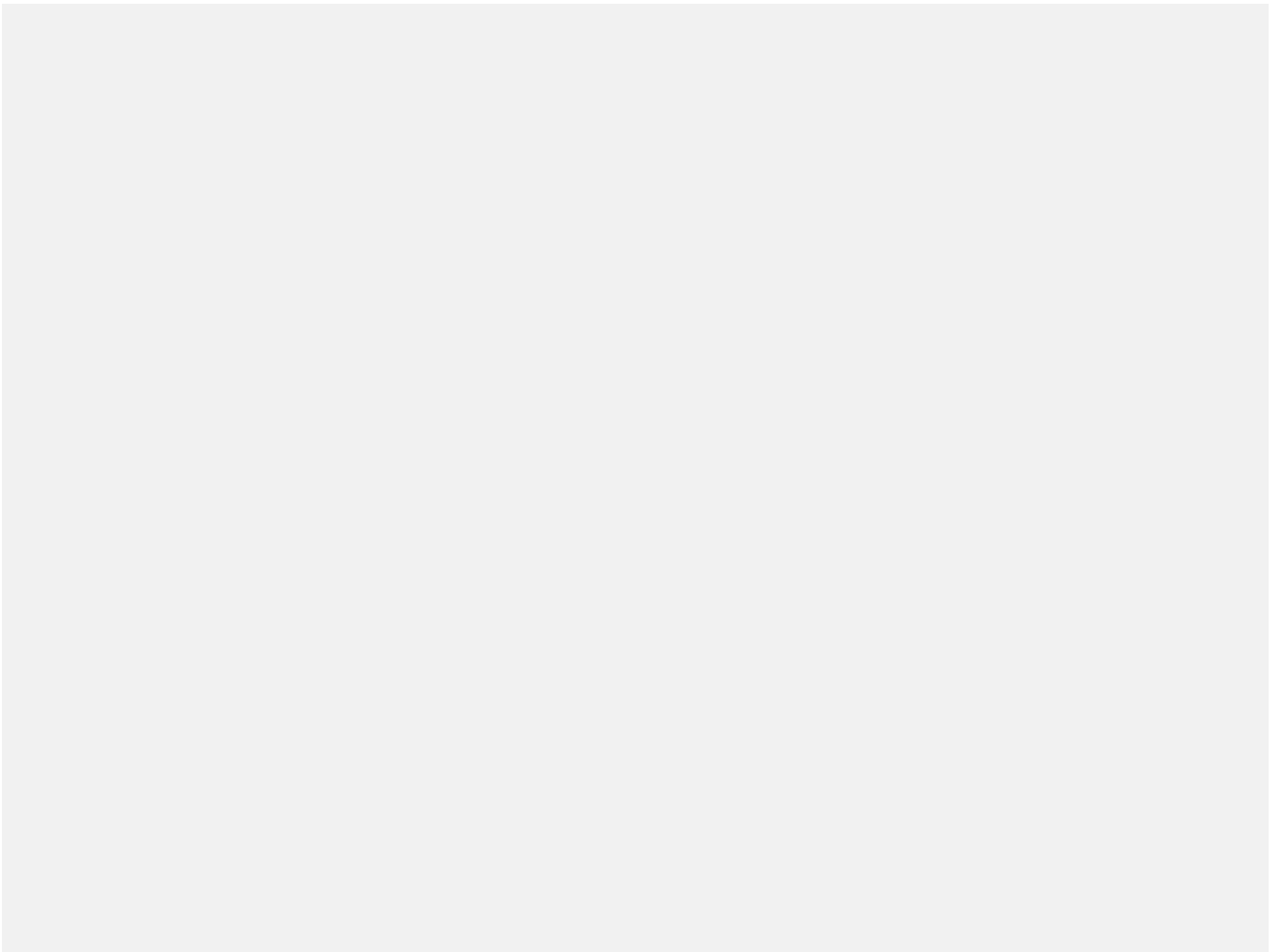




26. Create a user account with your information.

27. Click **Continue**.





28. Restart the virtual machine to finish the setup.

Quick Tip: If during the final restart process, you get a message to remove the installation and press **Enter**, but hitting the key won't restart the VM, just click the **Turn off** button and



After completing the steps, you can just turn on the VM and start using Ubuntu Linux alongside Windows 10.

While we're focusing this guide setting up Ubuntu, you can also refer to these instructions to run other distributions of Linux.

More Windows 10 resources

For more helpful articles, coverage, and answers to common questions about Windows 10, visit the following resources:

 [Windows 10 on Windows Central – All you need to know](#)

 [Windows 10 help, tips, and tricks](#)

 [Windows 10 forums on Windows Central](#)

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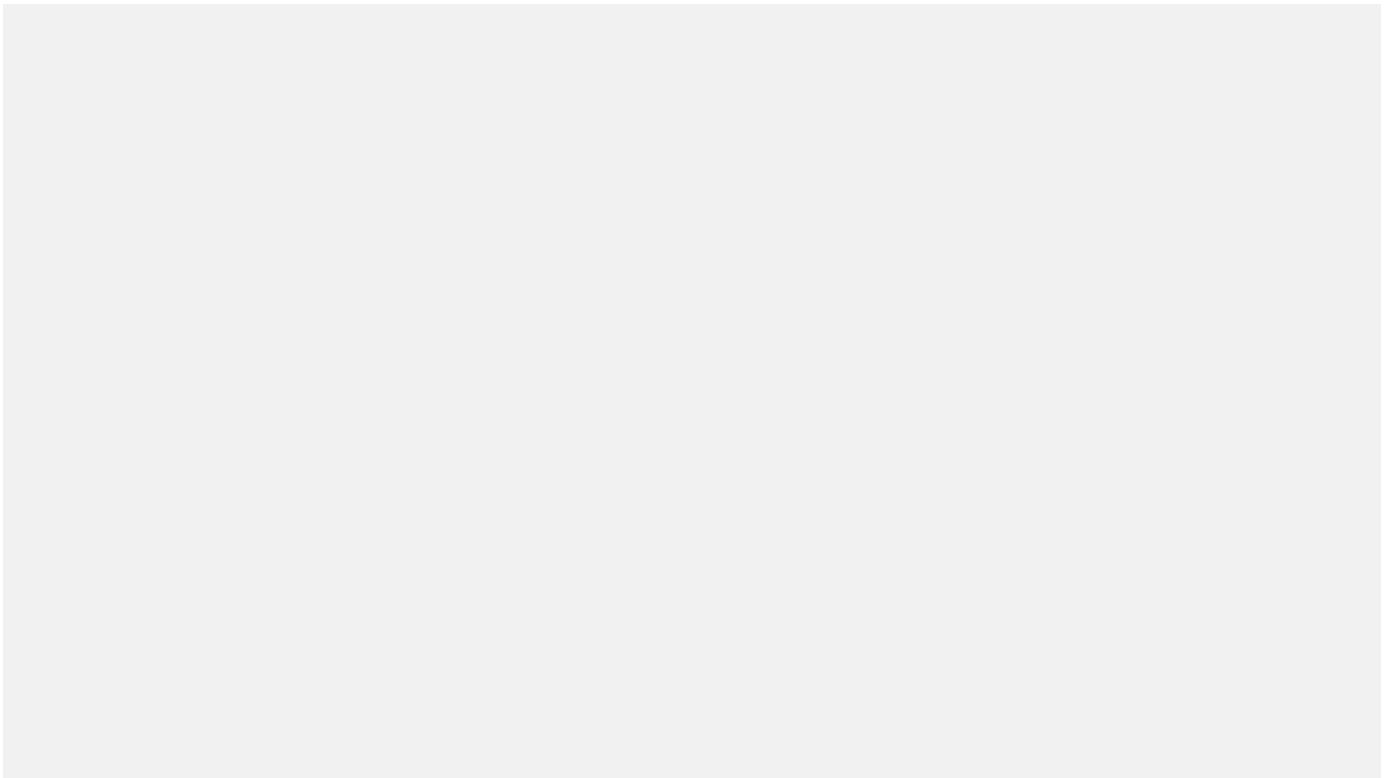
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Microsoft releases dogs and cats wallpaper pack

SEAN ENDICOTT 10 Jan 2020

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Source: Microsoft

What you need to know

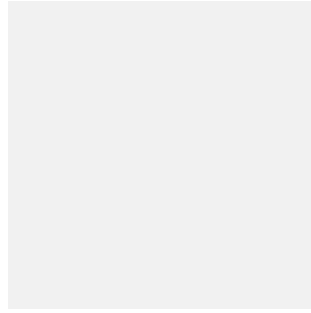
- **Microsoft released a new free wallpaper pack.**
- **The new Dogs and Cats wallpaper pack features 15 images of cats and dogs.**
- **It's available now for free through the Microsoft Store.**



Microsoft recently released the Dogs and Cats theme through the Microsoft Store. The theme includes 15 wallpapers featuring furry friends in adorable poses. The theme is available for free and is a nice way to rotate some four-legged cuteness onto your PC. Twitter user WalkingCat pointed out the theme's release on Twitter.

Microsoft frequently releases sets of wallpapers through the Microsoft Store. While they aren't all centered around animals, there are quite a few animal-related themes. Microsoft released a theme featuring dogs in disguises for Halloween and a theme including dogs in sunglasses last Summer.

What do you have set as your wallpaper on Windows 10? Let us know in the comments below.



Dogs and Cats

This theme includes 15 images of cats and dogs to bring some cuteness to your Windows 10 PC.

Free at Microsoft Store

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