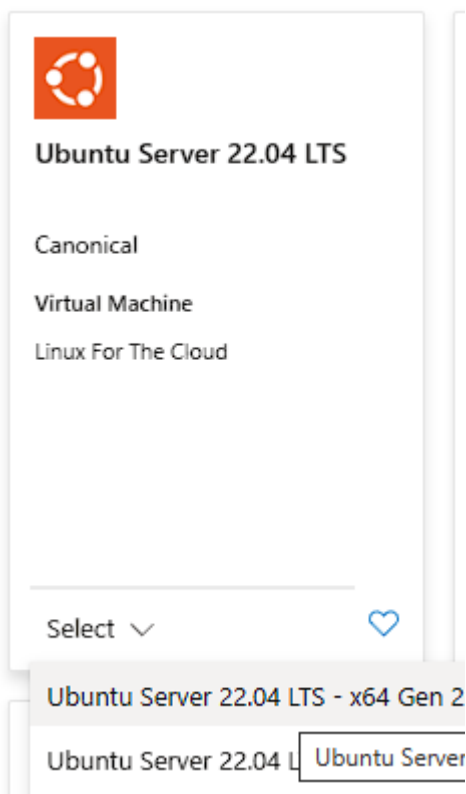


AZURE LAB 2 (Linux VM)

In this lab you will learn, how to create a Linux virtual machine.

1. So, the starting steps are same as the previous lab.
2. Open Azure Portal, on the homepage click on create resource, then select virtual machine.
3. On the create virtual machine page, select your resource group or you can create a new one.
4. Then give your virtual machine a name, select your region, then for the availability options and security type choose the same option as below in the image.
5. Now for the image, click on see all images, there you'll see Ubuntu Server 22.04 LTS, select it.



Create a virtual machine ...

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 * ⓘ	app-grp

[Create new](#)

Instance details

Virtual machine name * ⓘ	LinuxVM
Region * ⓘ	(Asia Pacific) Central India
Availability options ⓘ	No infrastructure redundancy required
Security type ⓘ	Standard
Image * ⓘ	Ubuntu Server 22.04 LTS - x64 Gen2 (free services eligible)

[See all images](#) | [Configure VM generation](#)

 This image is compatible with additional security features. [Click here to swap to the Trusted launch security type.](#)

VM architecture ⓘ	<input type="radio"/> Arm64
	<input checked="" type="radio"/> x64
Run with Azure Spot discount ⓘ	<input type="checkbox"/>

6. The size for the server should be B1s, because this one is eligible for free tier.

Size * ⓘ	Standard_B1s - 1 vcpu, 1 GiB memory (₹642.10/month) (free services eligible)
----------	--

[See all sizes](#)

7. Now in the administrator account select authentication type as Password, give a username and password to it.

Administrator account

Authentication type ⓘ	<input type="radio"/> SSH public key
	<input checked="" type="radio"/> Password
Username * ⓘ	Linuxusr
Password * ⓘ
Confirm password * ⓘ

8. In the inbound ports, select HTTP (80), this will help us in setting up the web server.

Select inbound ports *

HTTP (80), SSH (22)

☒ HTTP (80)

☐ HTTPS (443)

☒ SSH (22)

9. After all these steps are complete, go to review and create page. There just create your server.

10. Deployment might take some time.

Deployment is in progress

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-j... Start time: 12/20/2023, 1:34:17 PM
Subscription: Free Trial Correlation ID: 93e1db95-eb8f-48eb-9eb1-f21b7d531d38

Deployment details

Resource	Type	Status	Operation details
No results.			

11. Once the deployment is complete, click on Go to resources.

✓ Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-j... Start time: 12/20/2023, 1:34:17 PM
Subscription: Free Trial Correlation ID: 93e1db95-eb8f-48eb-9eb1-f21b7d531d38

Deployment details

Next steps

Setup 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

12. So, on the resource page you can see every information regarding your Linux server.

Home > CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20231220132523 | Overview

LinuxVM Virtual machine

Connect ▾ ▶ Start Restart Stop Hibernate (preview) Capture Delete Refresh Open in mobile Feedback CU / PS

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Connect Connect Bastion

Networking Network settings Load balancing Application security groups Network manager

Settings Disks Extensions + applications Configuration Advisor recommendations Properties Locks Availability + scale Size

Essentials

Resource group (mvp) : app-grp
Status : Running
Location : Central India
Subscription (mvp) : Free Trial
Subscription ID : 9acac99d-45ab-4d7e-9feb-ac0e3ea4372f
Tags (ed) : Add tags

Operating system : Linux (ubuntu 22.04)
Size : Standard B1s (1 vcpu, 1 GiB memory)
Public IP address : 4.247.139.148
Virtual network/subnet : LinuxVM-vnet/default
DNS name : Not configured
Health state : -

Tags (ed) : Add tags

Properties Monitoring Capabilities (7) Recommendations Tutorials

Virtual machine

Computer name : LinuxVM
Operating system : Linux (ubuntu 22.04)
Image publisher : canonical
Image offer : 0001-com-ubuntu-server-jammy
Image plan : 22_04-lts-gen2
VM generation : V2
VM architecture : x64
Agent status : Ready
Agent version : 2.9.1.1
Hibernation : Disabled
Host group : -
Host : -
Proximity placement group : -
Colocation status : N/A
Capacity reservation group : -

Networking

Public IP address : 4.247.139.148 (Network interface Linuxvm692)
Public address (IPv6) : -
Private IP address : 10.0.0.4
Private address (IPv6) : -
Virtual network/subnet : LinuxVM-vnet/default
DNS name : Configure

Size

Size : Standard B1s
vCPUs : 1
RAM : 1 GiB

Disk

OS disk : LinuxVM_OsDisk_1_53fc5294cc784de6aff3a2a610973d
Encryption at host : Disabled

13. Here you need to click on connect and copy the public IP address.



Connecting using

Public IP address | 4.247.139.148

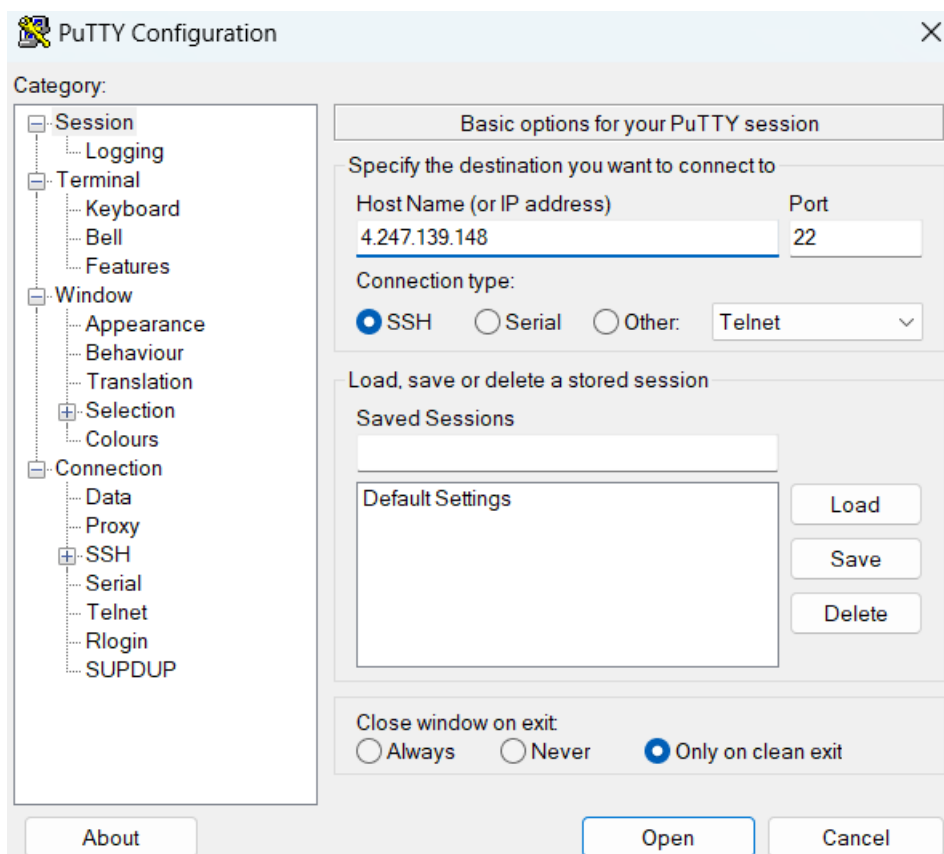


Admin username : Linuxusr
Port (change) : 22 [Check access](#) ⓘ
Just-in-time policy : Unsupported by plan ⓘ

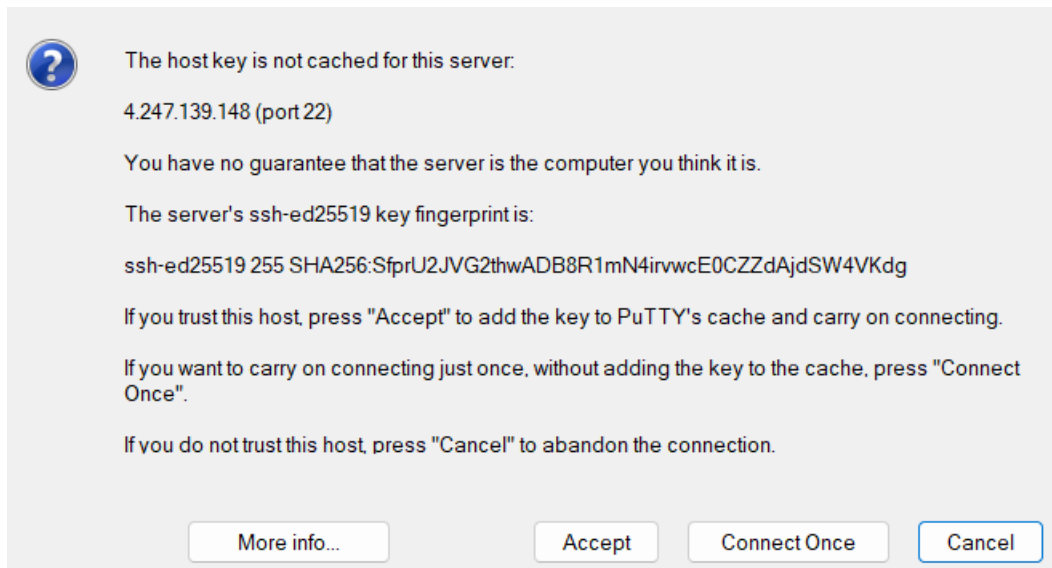
NOTE: TO CONNECT YOUR LINUX SERVER USE PUTTY. YOU CAN DOWNLOAD PUTTY FROM THIS LINK.

<https://www.putty.org/>

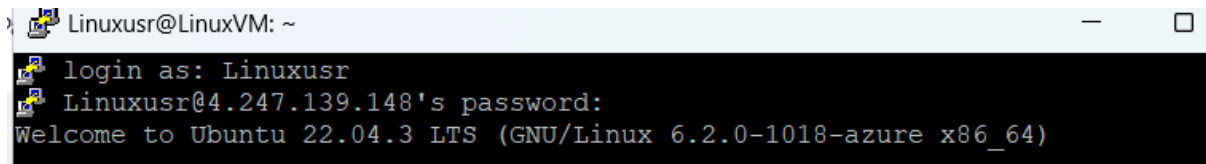
14. Now you need to open Putty, there you just need to paste your IP address. Then click on Open.



15. This is asking for your permission, click on Accept.



16. After that, you must log in to your server by entering the username and password you created while setting up the Linux server.



17. This is how Linux server looks like in Putty.

```
Linuxusr@LinuxVM: ~  
login as: Linuxusr  
Linuxusr@4.247.139.148's password:  
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-azure x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/advantage  
  
System information as of Wed Dec 20 08:22:01 UTC 2023  
  
System load:  0.0                Processes:            98  
Usage of /:   5.1% of 28.89GB    Users logged in:     0  
Memory usage: 31%              IPv4 address for eth0: 10.0.0.4  
Swap usage:   0%  
  
Expanded Security Maintenance for Applications is not enabled.  
  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
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.  
  
Linuxusr@LinuxVM:~$
```

18. After successfully logging into the Linux server, you need to run some commands on it and set up the web server role on it.
sudo apt-get update
sudo apt-get install nginx

```

Linuxusr@LinuxVM:~$ sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://azure.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1263 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [260 kB]
Get:13 http://azure.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1250 kB]
Get:14 http://azure.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [203 kB]
Get:15 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1020 kB]
Get:16 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [226 kB]
Get:17 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [22.1 kB]
Get:18 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [41.6 kB]
Get:19 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [9768 B]
Get:20 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [472 B]
Get:21 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [41.7 kB]
Get:22 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [10.5 kB]
Get:23 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:24 http://azure.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:25 http://azure.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [24.3 kB]
Get:26 http://azure.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.5 kB]
Get:27 http://azure.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [644 B]
Get:28 http://azure.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:29 http://azure.archive.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1051 kB]
Get:30 http://azure.archive.ubuntu.com/ubuntu jammy-security/main Translation-en [200 kB]
Get:31 http://azure.archive.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [1226 kB]
Get:32 http://azure.archive.ubuntu.com/ubuntu jammy-security/restricted Translation-en [200 kB]
Get:33 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [823 kB]
Get:34 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe Translation-en [156 kB]
Get:35 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [16.8 kB]
Get:36 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [36.5 kB]
Get:37 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [7060 B]
Get:38 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [260 B]
Fetched 28.8 MB in 5s (5960 kB/s)
Reading package lists... Done
Linuxusr@LinuxVM:~$

```

19. After running both of the commands, you need to go to the portal and copy your public IP address, then paste it in a new tab.
20. You'll see this welcome message from nginx, which means that web server is successfully installed and working.

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

NOTE: THE DELETION PROCESS IS THE SAME AS THE PREVIOUS LAB. CLICK ON HAMBURGER ICON ON THE TOP LEFT CORNER AND NAVIGATE TO ALL RESOURCES.

THERE SELECT ALL RESOURCES AND DELETE THOSE.

All resources

Default Directory (pulkidkumar271@gmail.onmicrosoft.com)

Create

Manage view

Refresh

Export to CSV

Open query

Assign tags

Delete

Filter for any field...

Subscription equals all

Resource group equals all

Type equals all

Location equals all

Add filter

0 Recommendations

7 Changed resources

0 Unsecure resources

No grouping

List view

Name	Type	Resource group	Location	Subscription
LinuxVM	Virtual machine	app-grp	Central India	Free Trial
LinuxVM-ip	Public IP address	app-grp	Central India	Free Trial
LinuxVM-nsg	Network security group	app-grp	Central India	Free Trial
LinuxVM-vnet	Virtual network	app-grp	Central India	Free Trial
linuxrm692	Network Interface	app-grp	Central India	Free Trial
LinuxVM_OsDisk_1_53fc5294c784de6aff93a2a610973d	Disk	APP-GRP	Central India	Free Trial
NetworkWatcher_centralIndia	Network Watcher	NetworkWatcherRG	Central India	Free Trial