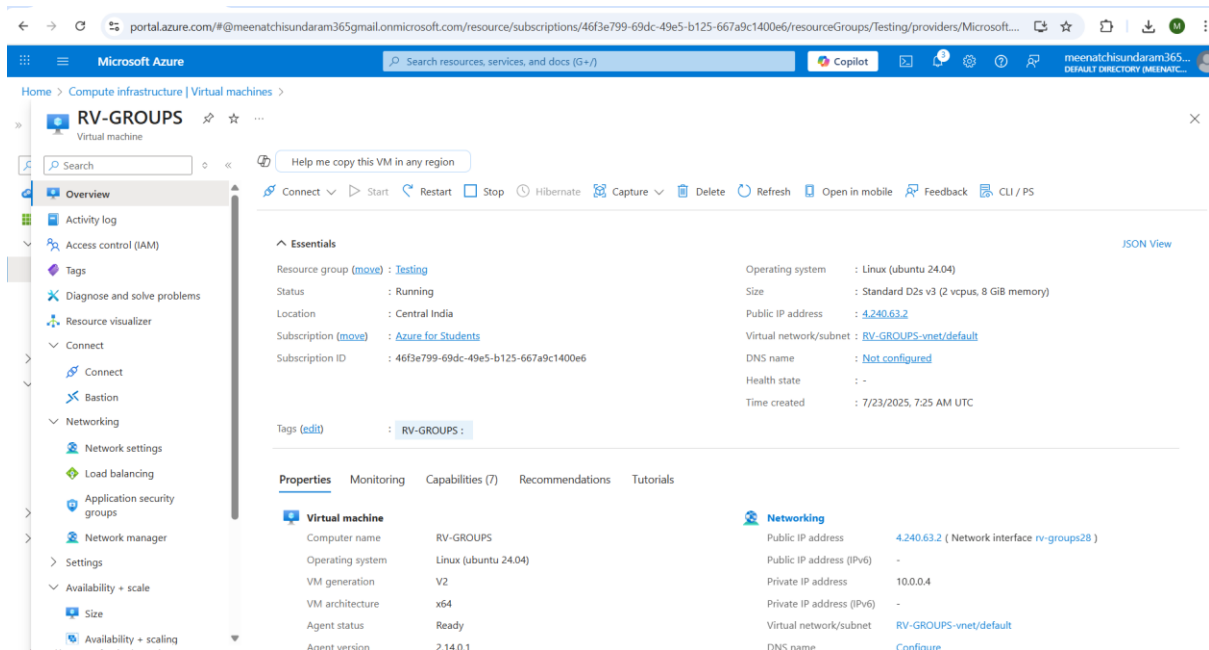


Cloning and Pulling a GitHub Repository on an Azure Linux VM

Objective:

To clone a GitHub repository into an Azure Linux virtual machine (VM) and perform a git pull to fetch the latest changes

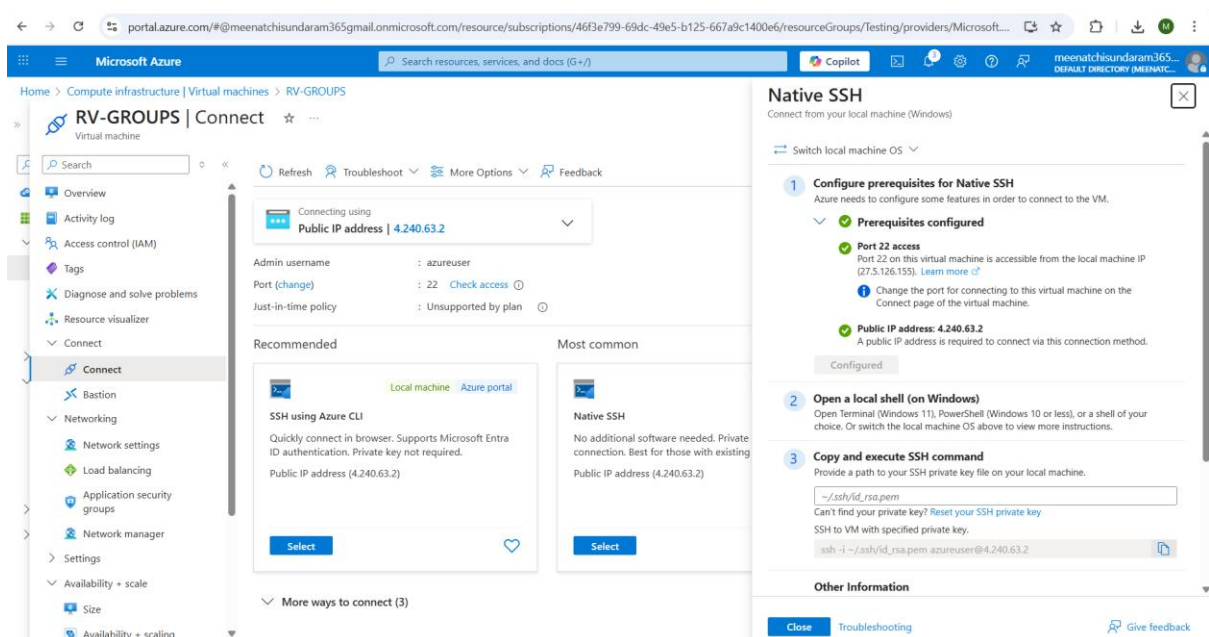
STEP 1 : Create and configure the Azure VM



The screenshot displays the Azure portal interface for a virtual machine named 'RV-GROUPS'. The left sidebar shows the navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Network settings, Load balancing, Application security groups, Network manager, Settings, Availability + scale, and Availability + scaling. The main content area shows the 'Overview' tab for the VM. Key details include:

- Essentials:**
 - Resource group: Testing
 - Status: Running
 - Location: Central India
 - Subscription: Azure for Students
 - Subscription ID: 46f3e799-69dc-49e5-b125-667a9c1400e6
 - Operating system: Linux (ubuntu 24.04)
 - Size: Standard D2s v3 (2 vcpus, 8 GiB memory)
 - Public IP address: 4.240.63.2
 - Virtual network/subnet: RV-GROUPS-vnet/default
 - DNS name: Not configured
 - Health state: -
 - Time created: 7/23/2025, 7:25 AM UTC
- Tags:** RV-GROUPS
- Properties:**
 - Virtual machine
 - Computer name: RV-GROUPS
 - Operating system: Linux (ubuntu 24.04)
 - VM generation: V2
 - VM architecture: x64
 - Agent status: Ready
 - Agent version: 2.14.0.1
- Networking:**
 - Public IP address: 4.240.63.2 (Network interface rv-groups28)
 - Public IP address (IPv6): -
 - Private IP address: 10.0.0.4
 - Private IP address (IPv6): -
 - Virtual network/subnet: RV-GROUPS-vnet/default
 - DNS name: Configure

STEP 2: Connect the VM through the SSH Key



The screenshot displays the 'Connect' page for the virtual machine 'RV-GROUPS' in the Azure portal. The left sidebar shows the navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Network settings, Load balancing, Application security groups, Network manager, Settings, Availability + scale, and Availability + scaling. The main content area shows the 'Connect' tab for the VM. Key details include:

- Connecting using:** Public IP address | 4.240.63.2
- Admin username:** azureuser
- Port (change):** 22
- Just-in-time policy:** Unsupported by plan
- Recommended:**
 - SSH using Azure CLI:** Quickly connect in browser. Supports Microsoft Entra ID authentication. Private key not required. Public IP address (4.240.63.2)
 - Native SSH:** No additional software needed. Private connection. Best for those with existing SSH key. Public IP address (4.240.63.2)
- More ways to connect (3):**

A 'Native SSH' dialog box is open on the right side of the screen, providing instructions for connecting to the VM. The dialog box includes the following steps:

- Configure prerequisites for Native SSH:** Azure needs to configure some features in order to connect to the VM. Prerequisites configured: Port 22 access (Port 22 on this virtual machine is accessible from the local machine IP (275.126.155)). Public IP address: 4.240.63.2 (A public IP address is required to connect via this connection method).
- Open a local shell (on Windows):** Open Terminal (Windows 11), PowerShell (Windows 10 or less), or a shell of your choice. Or switch the local machine OS above to view more instructions.
- Copy and execute SSH command:** Provide a path to your SSH private key file on your local machine. The command shown is: `ssh -i ~/.ssh/id_rsa.pem azureuser@4.240.63.2`

The dialog box also includes a 'Close' button and a 'Troubleshooting' link.

STEP 3 : After successfully logging into the VM Executed the ls command. it show there is no file or directory inside the VM

```
azureuser@RV-GROUPS: ~  
* Management: https://landscape.canonical.com  
* Support: https://ubuntu.com/pro  
  
System information as of Wed Jul 23 07:46:37 UTC 2025  
  
System load: 0.0 Processes: 132  
Usage of /: 5.6% of 28.02GB Users logged in: 0  
Memory usage: 3% 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  
  
Last login: Wed Jul 23 07:43:30 2025 from 27.5.126.155  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
azureuser@RV-GROUPS:~$ pwd  
/home/azureuser  
azureuser@RV-GROUPS:~$ ls  
azureuser@RV-GROUPS:~$ |
```

STEP 4 : After successfully logging into the VM and cloning the GitHub repository, I navigated into the cloned directory.

```
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  
  
Last login: Wed Jul 23 07:43:30 2025 from 27.5.126.155  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
azureuser@RV-GROUPS:~$ pwd  
/home/azureuser  
azureuser@RV-GROUPS:~$ ls  
azureuser@RV-GROUPS:~$ git clone https://github.com/meenatchi-sundaram-git/AZ104-POC-  
Cloning into 'AZ104-POC-'...  
remote: Enumerating objects: 12, done.  
remote: Counting objects: 100% (12/12), done.  
remote: Compressing objects: 100% (10/10), done.  
remote: Total 12 (delta 2), reused 11 (delta 1), pack-reused 0 (from 0)  
Receiving objects: 100% (12/12), 2.75 MiB | 41.43 MiB/s, done.  
Resolving deltas: 100% (2/2), done.  
azureuser@RV-GROUPS:~$  
azureuser@RV-GROUPS:~$ ls  
AZ104-POC-  
azureuser@RV-GROUPS:~$ |
```

STEP 5 : After navigating into the cloned repository directory, I executed the git pull command to ensure the local copy was up to date with the remote GitHub repository

```
The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Wed Jul 23 07:43:30 2025 from 27.5.126.155
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

azureuser@RV-GROUPS:~$ pwd
/home/azureuser
azureuser@RV-GROUPS:~$ ls
azureuser@RV-GROUPS:~$ git clone https://github.com/meenatchi-sundaram-git/AZ104-POC-
Cloning into 'AZ104-POC-'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 12 (delta 2), reused 11 (delta 1), pack-reused 0 (from 0)
Receiving objects: 100% (12/12), 2.75 MiB | 41.43 MiB/s, done.
Resolving deltas: 100% (2/2), done.
azureuser@RV-GROUPS:~$
azureuser@RV-GROUPS:~$ ls
AZ104-POC-
azureuser@RV-GROUPS:~$ cd AZ104-POC-
azureuser@RV-GROUPS:~/AZ104-POC-$ ls
TASK1.pdf TASK2.pdf TASK3.pdf TASK4.pdf
azureuser@RV-GROUPS:~/AZ104-POC-$
azureuser@RV-GROUPS:~/AZ104-POC-$
azureuser@RV-GROUPS:~/AZ104-POC-$
azureuser@RV-GROUPS:~/AZ104-POC-$ |
```