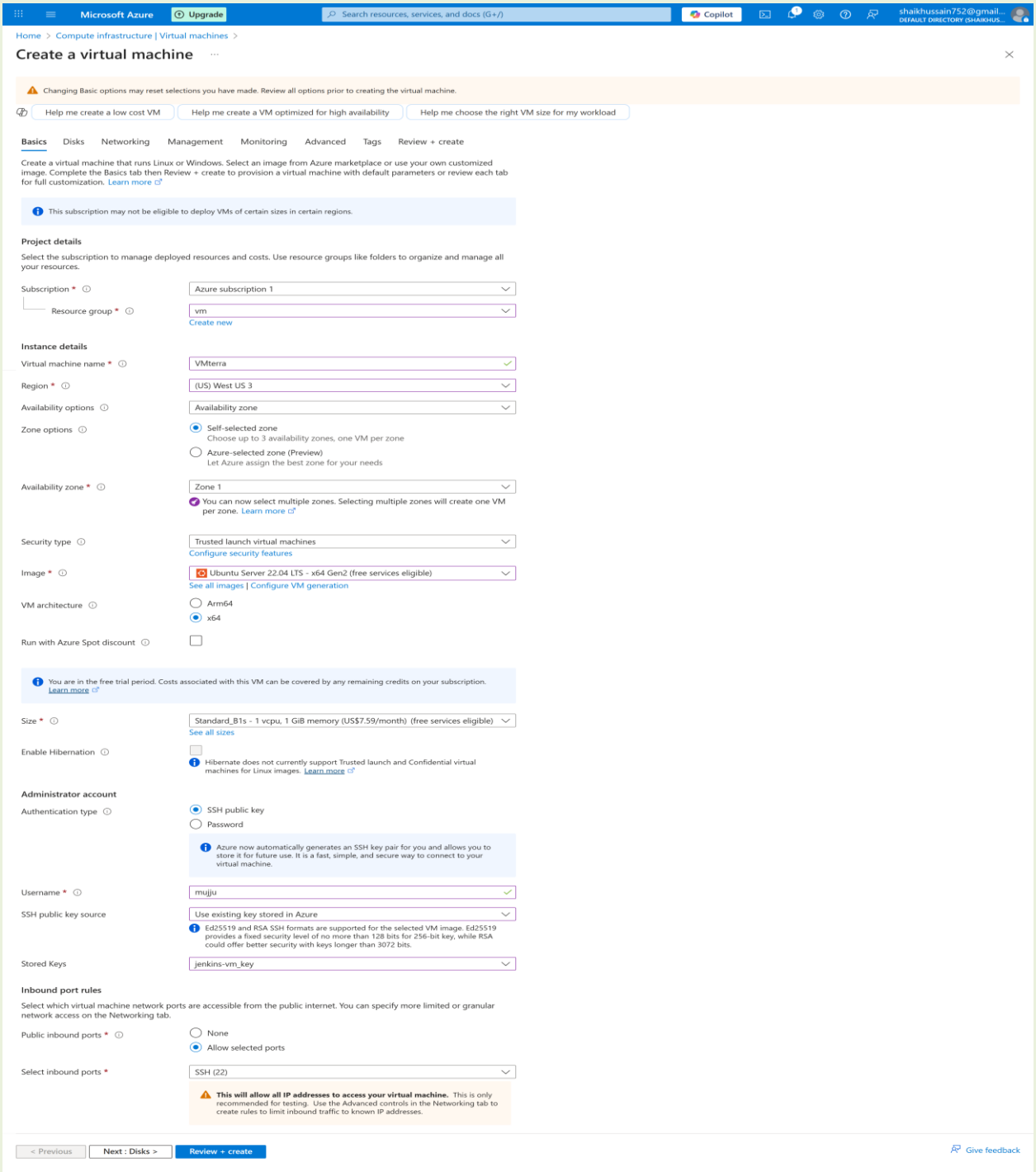
TASKS ON TERRAFORM

- **NAME: S.MUZZAMMIL HUSSAIN**
- **DATE: 17/07/2025**
- **BATCH: 11**
- **NO.OF TASKS: 1**

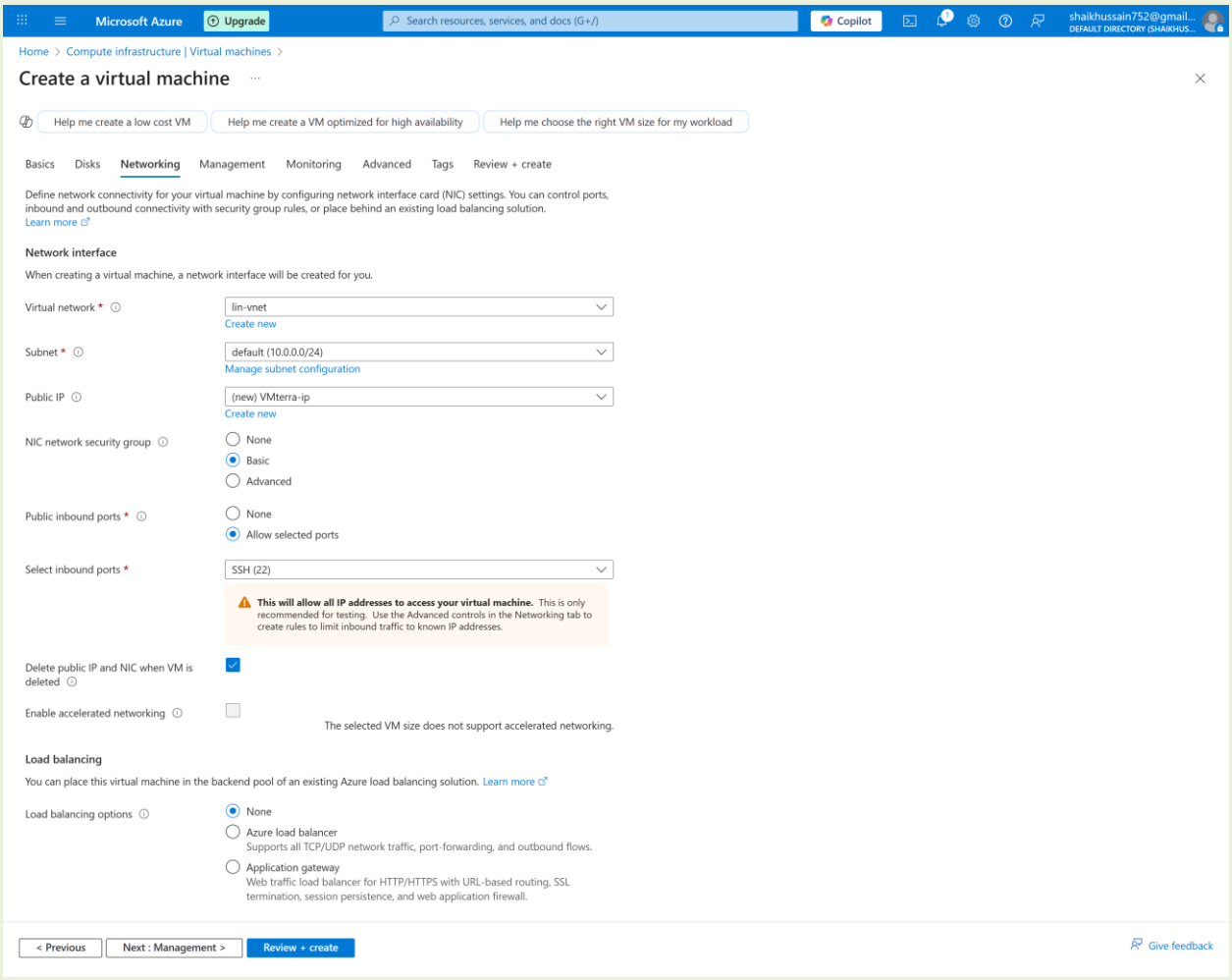
---

1. Installation of terraform on Linux

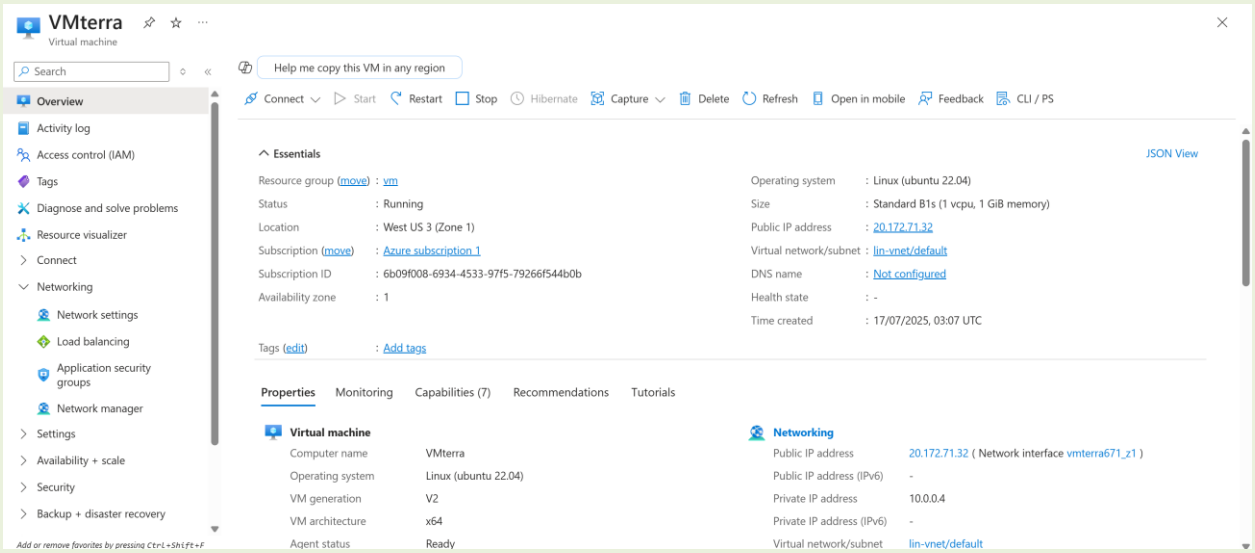
We create a virtual machine to install terraform, create a Virtual machine with following details



In Networking section



VM is created



Installation of terraform:

Install required packages

sudo apt-get update && sudo apt-get install -y gnupg software-properties-common

```
mujju@VMterra:~$ sudo apt-get update && sudo apt-get install -y gnupg software-properties-common
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease [129 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 [2751 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [437 kB]
Get:13 http://azure.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [4018 kB]
Get:14 http://azure.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [725 kB]
Get:15 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1223 kB]
Get:16 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [302 kB]
Get:17 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [28.7 kB]
Get:18 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [59.5 kB]
Get:19 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [14.2 kB]
Get:20 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [592 B]
Get:21 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [68.8 kB]
Get:22 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [11.4 kB]
Get:23 http://azure.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 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 [30.0 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 [672 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 [2474 kB]
Get:30 http://azure.archive.ubuntu.com/ubuntu jammy-security/main Translation-en [370 kB]
Get:31 http://azure.archive.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [3767 kB]
Get:32 http://azure.archive.ubuntu.com/ubuntu jammy-security/restricted Translation-en [677 kB]
Get:33 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [990 kB]
Get:34 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe Translation-en [214 kB]
Get:35 http://azure.archive.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [21.7 kB]
Get:36 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [40.3 kB]
Get:37 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [8908 B]
Get:38 http://azure.archive.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [368 B]
Fetched 39.0 MB in 6s (6619 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
```

Securely add HashiCorp's GPG key to Linux system

wget -O- https://apt.releases.hashicorp.com/gpg | gpg --dearmor | sudo tee /usr/share/keyrings/hashicorp-archive-keyring.gpg > /dev/null

```
mujju@VMterra:~$ wget -O- https://apt.releases.hashicorp.com/gpg | gpg --dearmor | sudo tee /usr/share/keyrings/hashicorp-archive-keyring.gpg > /dev/null
--2025-07-17 03:29:34--  https://apt.releases.hashicorp.com/gpg
Resolving apt.releases.hashicorp.com (apt.releases.hashicorp.com)... 18.238.96.76, 18.238.96.112, 18.238.96.22, ...
Connecting to apt.releases.hashicorp.com (apt.releases.hashicorp.com)|18.238.96.76|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3980 (3.9K) [binary/octet-stream]
Saving to: 'STDOUT'

-                                   100%[=========================================================================>]   3.89K  --.-KB/s    in 0s

2025-07-17 03:29:34 (4.95 GB/s) - written to stdout [3980/3980]
```

You are adding the HashiCorp APT repository to your system, so apt can install Terraform and keep it updated via the package manager.

- **echo "deb [signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb_release -cs) main" | sudo tee /etc/apt/sources.list.d/hashicorp.list**
- **sudo apt update**

```
mujju@VMterra:~$ echo "deb [signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com $(lsb_release -cs) main" | sudo
tee /etc/apt/sources.list.d/hashicorp.list
deb [signed-by=/usr/share/keyrings/hashicorp-archive-keyring.gpg] https://apt.releases.hashicorp.com jammy main
mujju@VMterra:~$ sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Get:5 https://apt.releases.hashicorp.com jammy InRelease [12.9 kB]
Get:6 https://apt.releases.hashicorp.com jammy/main amd64 Packages [191 kB]
Fetched 204 kB in 1s (253 kB/s)
Reading package lists... Done
mujju@VMterra:~$
```

Once we have added the repository and updated run the command to install **terraform**

sudo apt-get install terraform

```
mujju@VMterra:~$ sudo apt-get install terraform
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done
The following NEW packages will be installed:
  terraform
0 upgraded, 1 newly installed, 0 to remove and 21 not upgraded.
Need to get 28.4 MB of archives.
After this operation, 93.6 MB of additional disk space will be used.
Get:1 https://apt.releases.hashicorp.com jammy/main amd64 terraform amd64 1.12.2-1 [28.4 MB]
Fetched 28.4 MB in 0s (96.3 MB/s)
Selecting previously unselected package terraform.
(Reading database ... 62805 files and directories currently installed.)
Preparing to unpack .../terraform_1.12.2-1_amd64.deb ...
Unpacking terraform (1.12.2-1) ...
Setting up terraform (1.12.2-1) ...
Scanning processes...
Scanning linux images...
```

Check the version using command

terraform –v

```
mujju@VMterra:~$ terraform -v
Terraform v1.12.2
on linux_amd64
```