Assessment

EC2 and EBS

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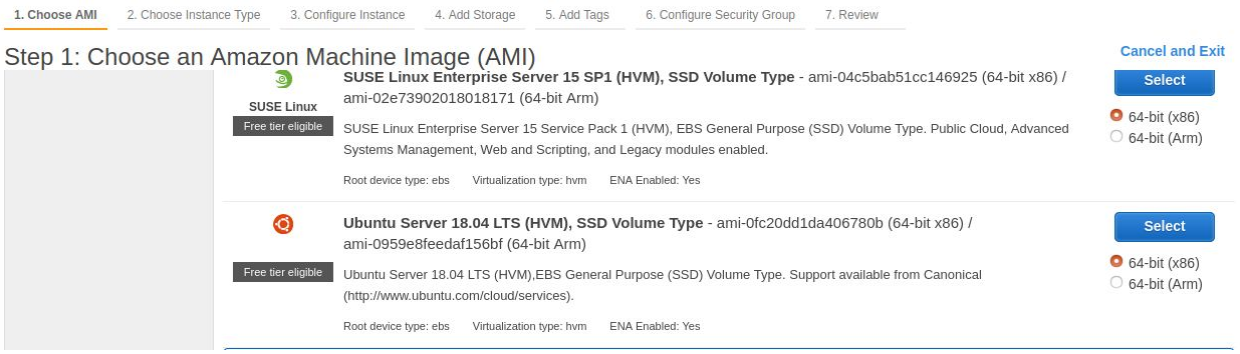
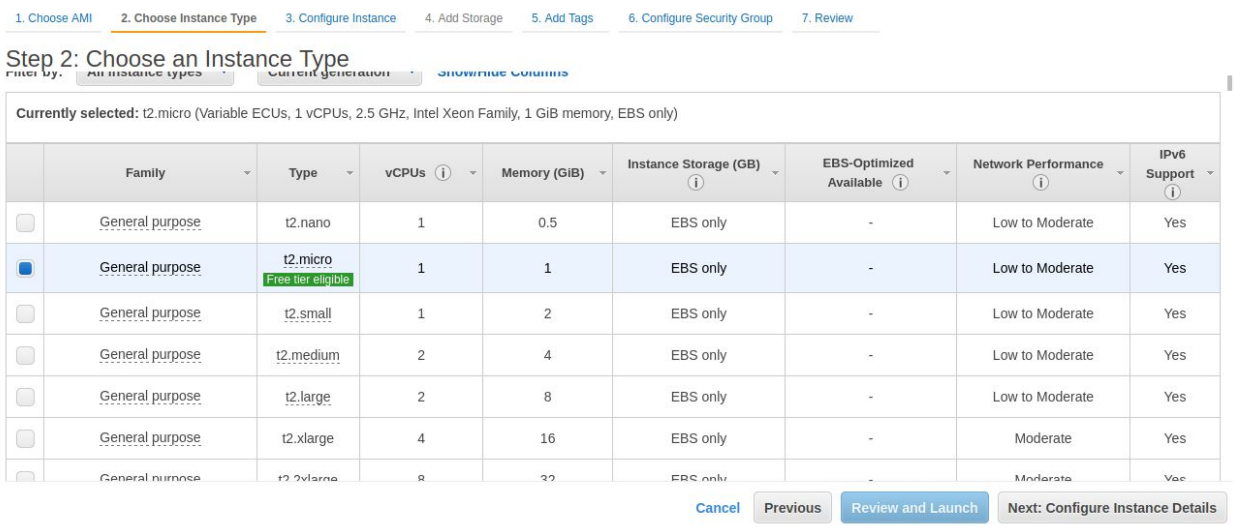
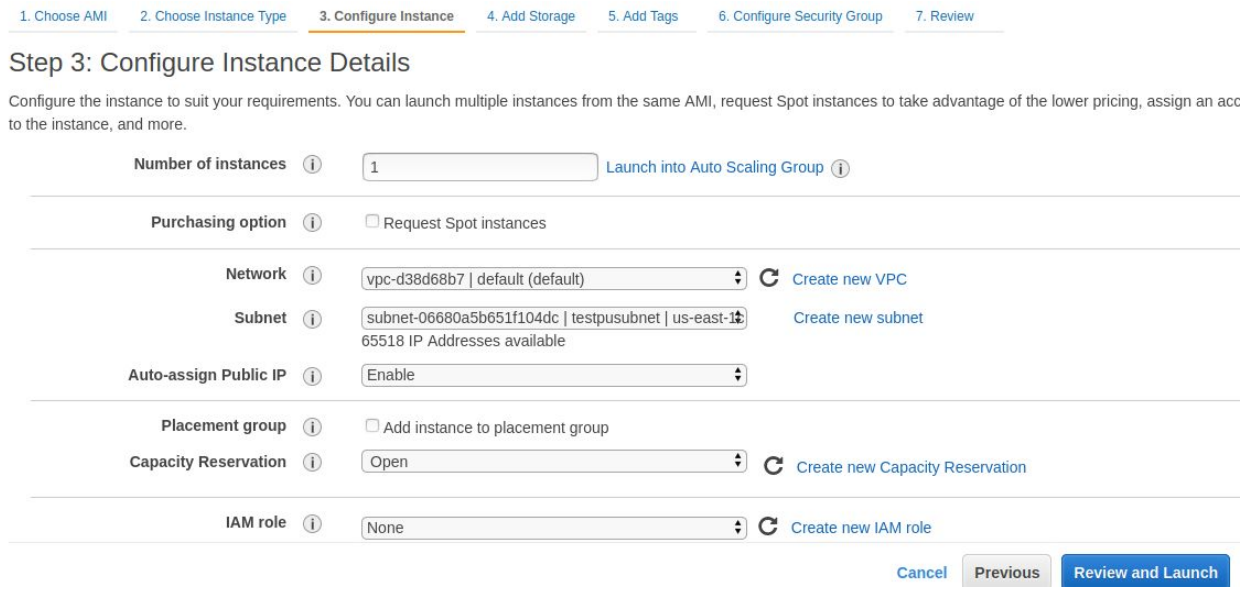
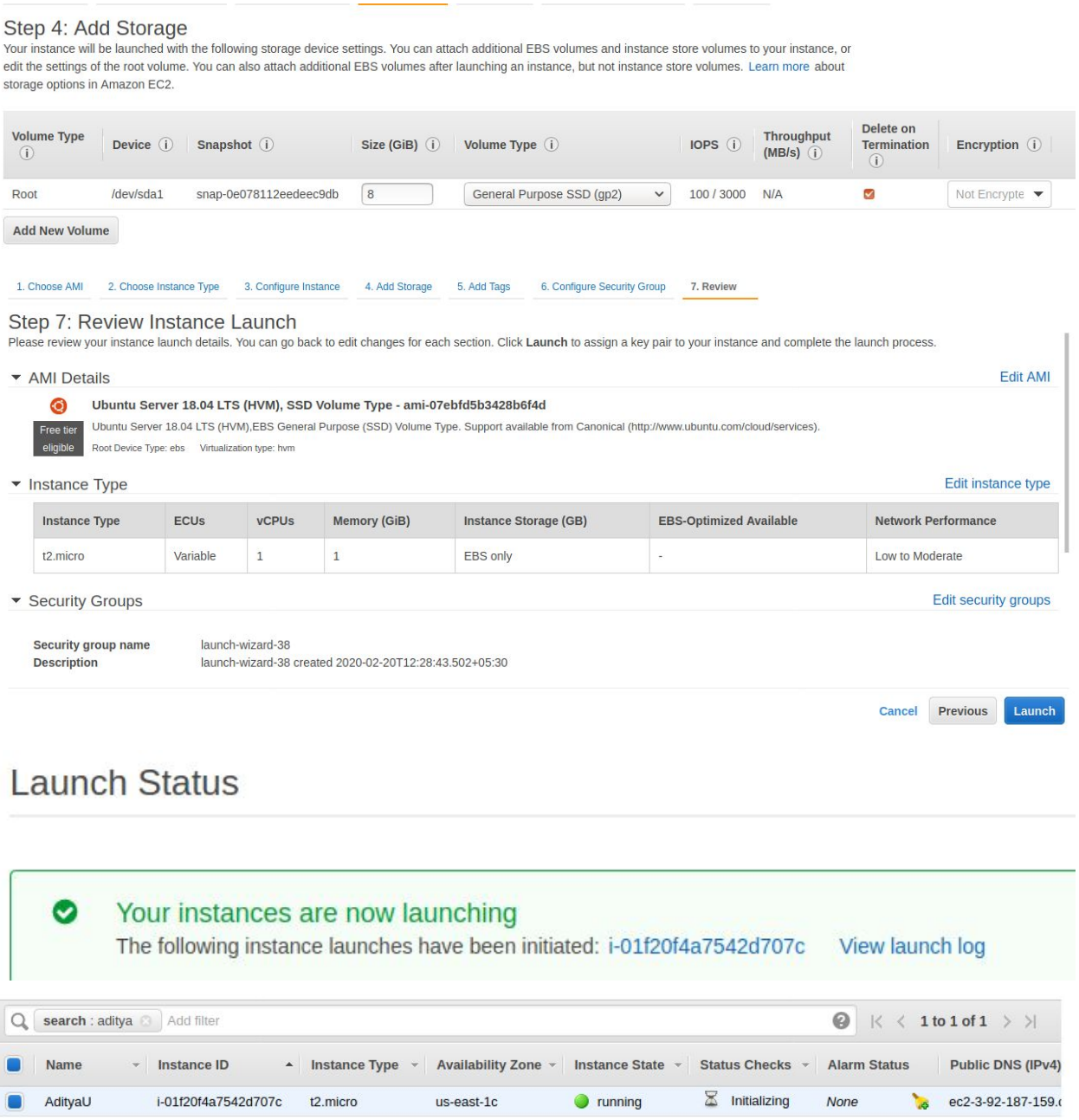
Newers ID : 3978
Mentor Name : Tarun Saxena
College : UPES

1. Create an EC2 instance (Ubunutu 18.04, T3 nano).(instance A)

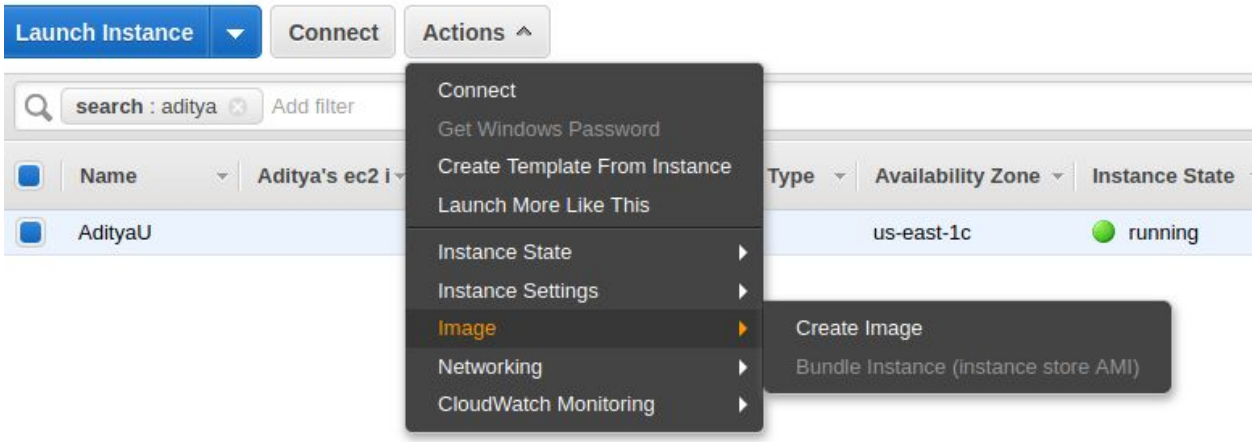


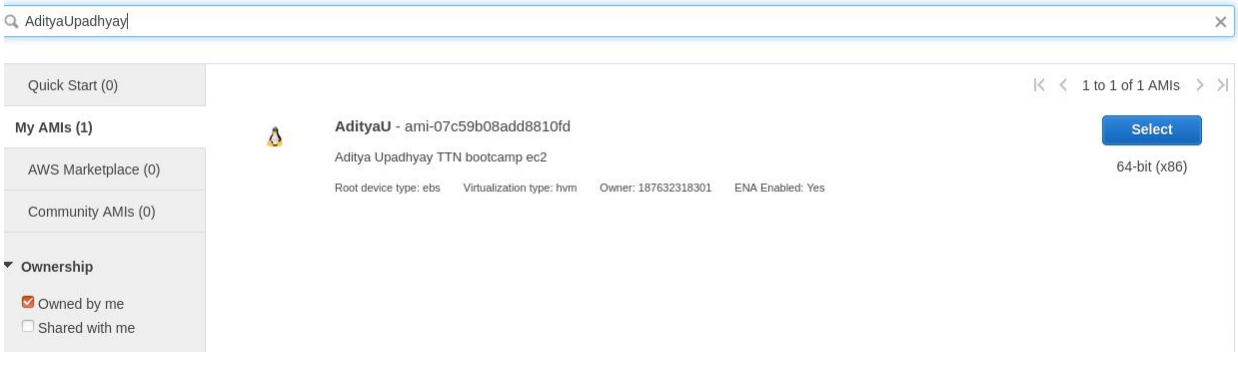


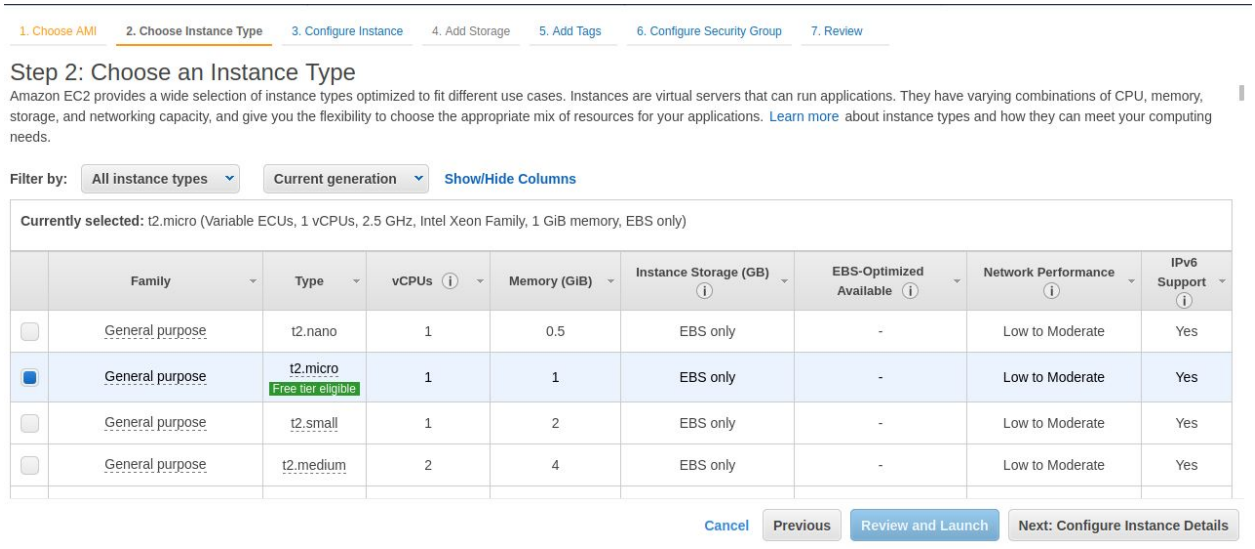




2. Create AMI of above instance and launch it. (instance B)


Launch Instance
Connect
Actions
search : aditya
Add filter
Name
Aditya's ec2 i
Type
Availability Zone
Instance State
AdityaU
us-east-1c
running
Connect
Get Windows Password
Create Template From Instance
Launch More Like This
Instance State
Instance Settings
Image
Networking
CloudWatch Monitoring
Create Image
Bundle Instance (instance store AMI)


AdityaUpadhyay
Quick Start (0)
My AMIs (1)
AWS Marketplace (0)
Community AMIs (0)
Ownership
Owned by me
Shared with me
1 to 1 of 1 AMIs
AdityaU - ami-07c59b08add8810fd
Aditya Upadhyay TTN bootcamp ec2
Root device type: ebs
Virtualization type: hvm
Owner: 187632318301
ENA Enabled: Yes
Select
64-bit (x86)


1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 2: Choose an Instance Type
Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.
Filter by:
All instance types
Current generation
Show/Hide Columns
Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)
Family
Type
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
IPv6 Support
General purpose
t2.nano
1
0.5
EBS only
-
Low to Moderate
Yes
General purpose
t2.micro
Free tier eligible
1
1
EBS only
-
Low to Moderate
Yes
General purpose
t2.small
1
2
EBS only
-
Low to Moderate
Yes
General purpose
t2.medium
2
4
EBS only
-
Low to Moderate
Yes
Cancel
Previous
Review and Launch
Next: Configure Instance Details

1. Choose AMI | 2. Choose Instance Type | **3. Configure Instance** | 4. Add Storage | 5. Add Tags | 6. Configure Security Group | 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	1 Launch into Auto Scaling Group
Purchasing option	Request Spot instances
Network	vpc-d38d68b7 | default (default) Create new VPC
Subnet	subnet-06680a5b651f104dc | testpusubnet | us-east-1 Create new subnet 65511 IP Addresses available
Auto-assign Public IP	Use subnet setting (Disable)
Placement group	Add instance to placement group
Capacity Reservation	Open Create new Capacity Reservation
IAM role	None Create new IAM role

Cancel | Previous | **Review and Launch** | Next: Add Storage

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. Learn more about storage options in Amazon EC2.

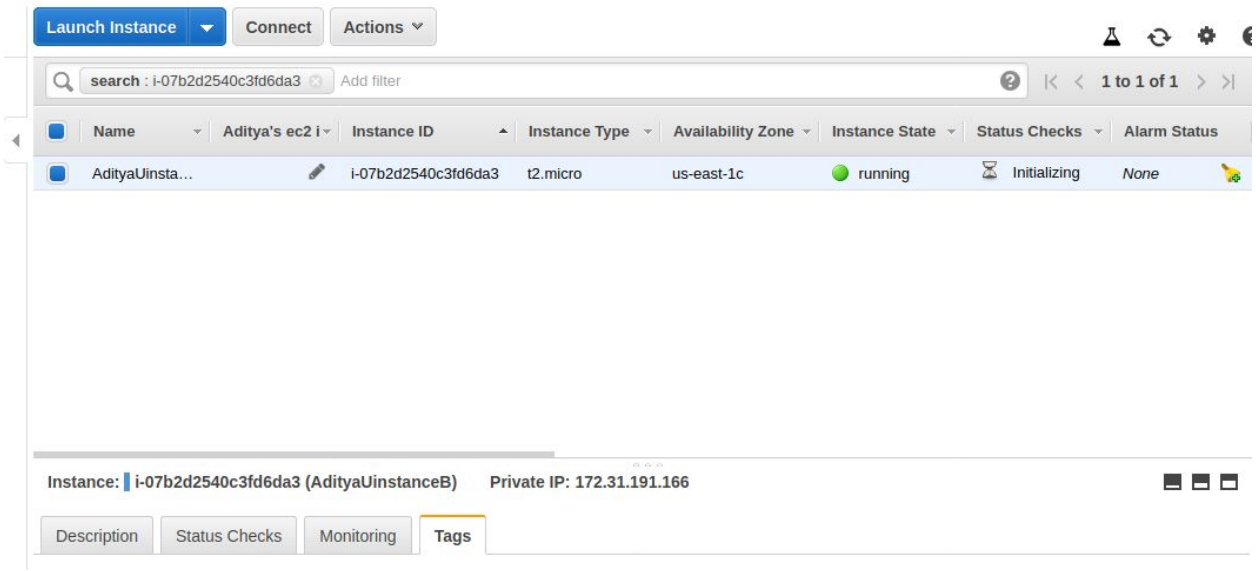
Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-077a0c0a784067b54	8	General Purpose SSD (gp2)	100 / 3000	N/A	☑	Not Encrypte

Add New Volume

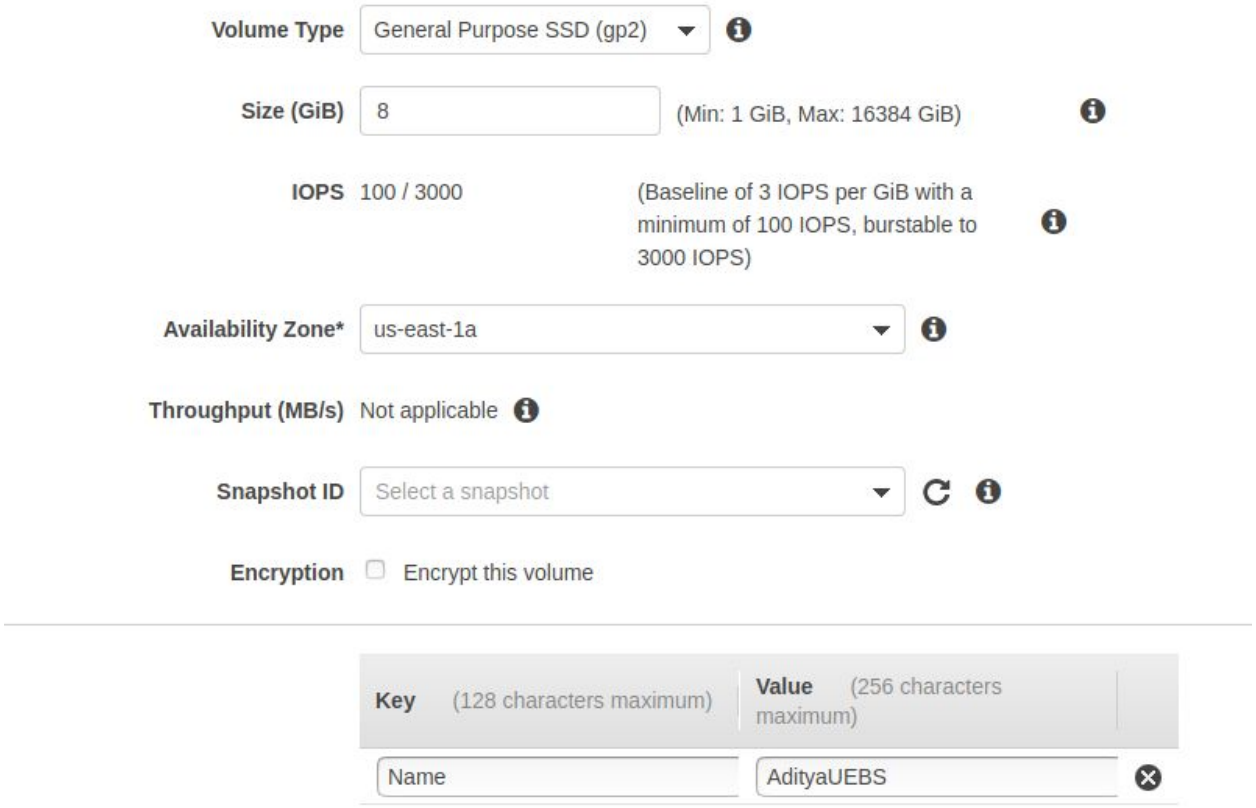
Launch Status

Your instances are now launching

The following instance launches have been initiated: i-07b2d2540c3fd6da3 View launch log



3. Attach EBS (8 GB) on that running instance.



Volumes > Create Volume

Create Volume

Volume created successfully

Volume ID vol-0fab62022e3098fac

Close

Attach Volume

Volume vol-0f6733d380adbeec6 (AdityaUebs) in us-east-1c

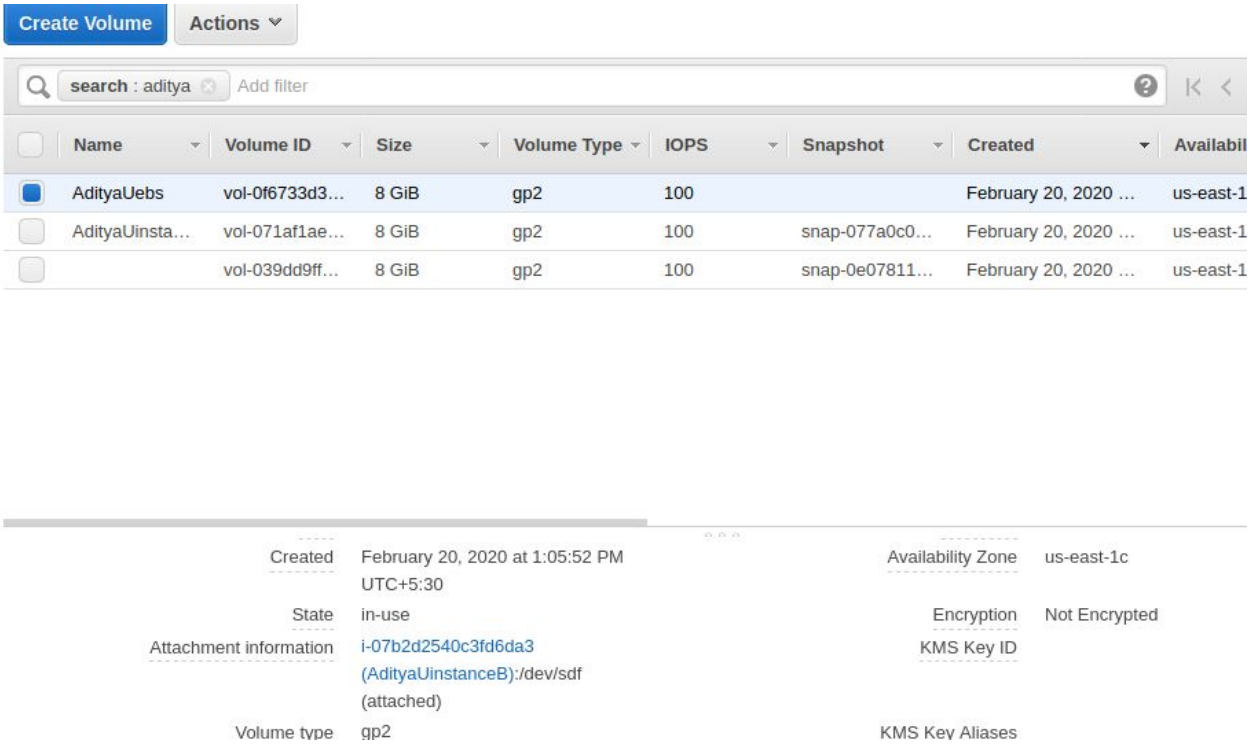
Instance i-03e2f18b5be0e6d0b in us-east-1c

Device /dev/sdf

Linux Devices: /dev/sdf through /dev/sdp

Note: Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel Attach



4. Stop, Start, Restart that EBS (EBS must be auto-attached).

```
aditya@aditya-0:$ chmod 400 AdityaTTN.pem
aditya@aditya-0:$ ssh -i "AdityaTTN.pem" root@ec2-107-22-128-190.compute-1.amazonaws.com
Please login as the user "ubuntu" rather than the user "root".

Connection to ec2-107-22-128-190.compute-1.amazonaws.com closed.
aditya@aditya-0:$ ssh -i "AdityaTTN.pem" ubuntu@ec2-107-22-128-190.compute-1.amazonaws.com
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Thu Feb 20 07:46:42 UTC 2020

  System load:  0.03              Processes:           89
  Usage of /:   13.8% of 7.69GB   Users logged in:     0
  Memory usage: 14%               IP address for eth0: 172.31.172.244
  Swap usage:   0%


0 packages can be updated.
0 updates are security updates.



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.

ubuntu@ip-172-31-172-244:~$
```

```
ubuntu@ip-172-31-172-244:~$ lsblk
NAME    MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
loop0     7:0    0   18M  1 loop /snap/amazon-ssm-agent/1480
loop1     7:1    0 89.1M  1 loop /snap/core/8268
xvda    202:0    0    8G  0 disk
└─xvda1 202:1    0    8G  0 part /
xvdf    202:80   0    8G  0 disk
ubuntu@ip-172-31-172-244:~$
```

```
ubuntu@ip-172-31-172-244:~$ sudo fdisk /dev/xvdf

Welcome to fdisk (util-linux 2.31.1).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x203f5c76.

Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (2048-16777215, default 2048):
Last sector, +sectors or +size{K,M,G,T,P} (2048-16777215, default 16777215):

Created a new partition 1 of type 'Linux' and of size 8 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

ubuntu@ip-172-31-172-244:~$
```

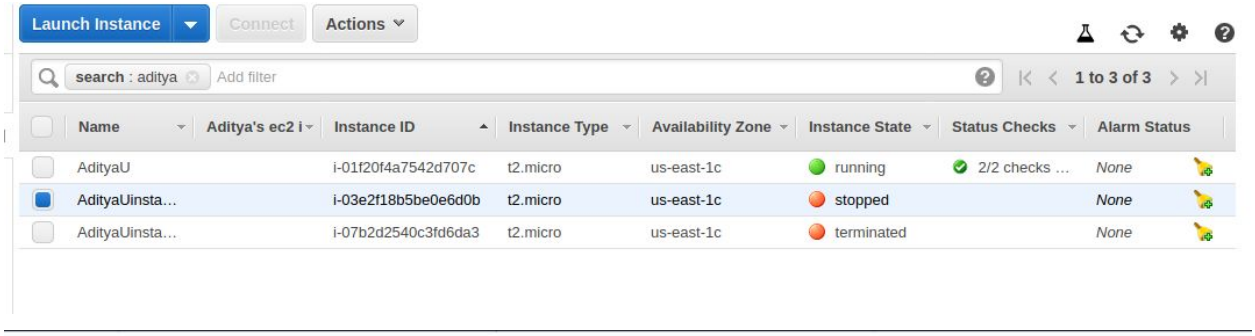
```
ubuntu@ip-172-31-172-244:~$ lsblk
NAME    MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
loop0     7:0    0   18M  1 loop /snap/amazon-ssm-agent/1480
loop1     7:1    0 89.1M  1 loop /snap/core/8268
xvda    202:0    0    8G  0 disk
└─xvda1 202:1    0    8G  0 part /
xvdf    202:80   0    8G  0 disk
└─xvdf1 202:81   0    8G  0 part
ubuntu@ip-172-31-172-244:~$
```

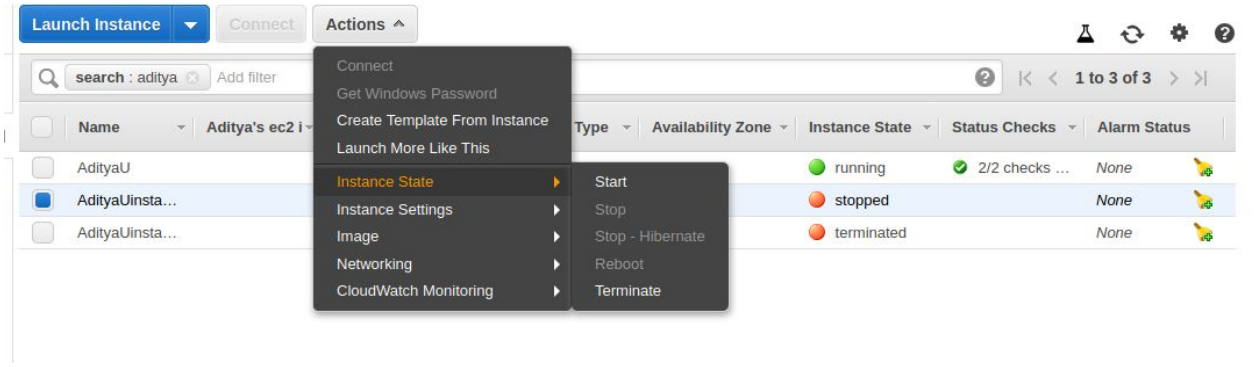
```
ubuntu@ip-172-31-172-244:~$ sudo mkfs.ext4 /dev/xvdf1
mke2fs 1.44.1 (24-Mar-2018)
Creating filesystem with 2096896 4k blocks and 524288 inodes
Filesystem UUID: 9ddc4b05-a757-46bb-940d-9d68c17adf4c
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

ubuntu@ip-172-31-172-244:~$ ls
ubuntu@ip-172-31-172-244:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-172-244:~$ mkdir testing
ubuntu@ip-172-31-172-244:~$ ls
testing
ubuntu@ip-172-31-172-244:~$ sudo mount /dev/xvdf1 /home/ubuntu/testing
ubuntu@ip-172-31-172-244:~$ echo $?
0
ubuntu@ip-172-31-172-244:~$
```

```
ubuntu@ip-172-31-172-244:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            481M     0  481M   0% /dev
tmpfs            99M  752K   98M   1% /run
/dev/xvda1      7.7G  1.1G  6.7G  14% /
tmpfs           492M     0  492M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           492M     0  492M   0% /sys/fs/cgroup
/dev/loop0       18M   18M     0 100% /snap/amazon-ssm-agent/1480
/dev/loop1       90M   90M     0 100% /snap/core/8268
tmpfs            99M     0   99M   0% /run/user/1000
/dev/xvdf1      7.9G   36M  7.4G   1% /home/ubuntu/testing
ubuntu@ip-172-31-172-244:~$
```

```
ubuntu@ip-172-31-172-244:~/testing$ sudo !!
sudo mkdir test{1..8}
ubuntu@ip-172-31-172-244:~/testing$ ls
lost+found  test1  test2  test3  test4  test5  test6  test7  test8
ubuntu@ip-172-31-172-244:~/testing$ sudo blkid
/dev/xvda1: LABEL="cloudimg-rootfs" UUID="c03b791b-60ef-4ae1-82b5-5c9ab6b4d08f" TYPE="ext4" PARTUUID="b32e823c-01"
/dev/loop0: TYPE="squashfs"
/dev/loop1: TYPE="squashfs"
/dev/xvdf1: UUID="9ddc4b05-a757-46bb-940d-9d68c17adf4c" TYPE="ext4" PARTUUID="203f5c76-01"
ubuntu@ip-172-31-172-244:~/testing$ sudo vim /etc/fstab
ubuntu@ip-172-31-172-244:~/testing$ sudo findmnt --verify
/
   [W] recommended root FS passno is 1 (current is 0)

0 parse errors, 0 errors, 1 warning
ubuntu@ip-172-31-172-244:~/testing$
```

```
ubuntu@ip-172-31-172-244:~/testing$ cat /etc/fstab
LABEL=cloudimg-rootfs   /        ext4   defaults,discard        0 0
UUID=9ddc4b05-a757-46bb-940d-9d68c17adf4c       /home/ubuntu/testing    ext4    defaults        0       0
ubuntu@ip-172-31-172-244:~/testing$
```





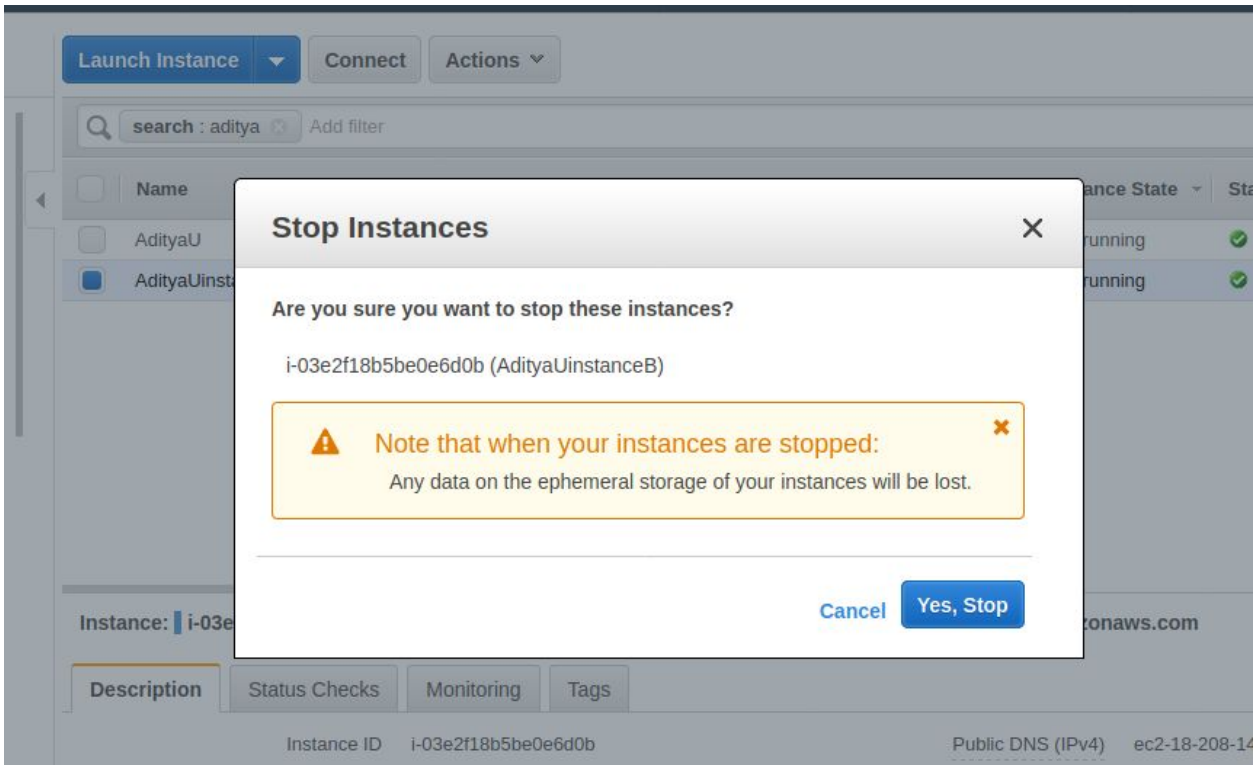

```
aditya@aditya-0:$ ssh -i "AdityaTTN.pem" ubuntu@ec2-54-234-40-141.compute-1.amazonaws.com
The authenticity of host 'ec2-54-234-40-141.compute-1.amazonaws.com (54.234.40.141)' can't be established.
ECDSA key fingerprint is SHA256:xl0sfxp/95Uny0DdTnr1XMV2lmlGiHDOzS8sRH1Ynvs.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-54-234-40-141.compute-1.amazonaws.com,54.234.40.141' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Thu Feb 20 08:20:50 UTC 2020

  System load:  0.04              Processes:           91
  Usage of /:   13.8% of 7.69GB   Users logged in:     0
  Memory usage: 14%               IP address for eth0: 172.31.172.244
  Swap usage:   0%


0 packages can be updated.
0 updates are security updates.


Last login: Thu Feb 20 07:46:43 2020 from 182.71.160.186
ubuntu@ip-172-31-172-244:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            481M     0  481M   0% /dev
tmpfs            99M  756K   98M   1% /run
/dev/xvda1      7.7G  1.1G  6.7G  14% /
tmpfs           492M     0  492M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           492M     0  492M   0% /sys/fs/cgroup
/dev/loop0       18M   18M     0 100% /snap/amazon-ssm-agent/1480
/dev/loop1       90M   90M     0 100% /snap/core/8268
/dev/xvdf1      7.9G   37M  7.4G   1% /home/ubuntu/testing
tmpfs            99M     0   99M   0% /run/user/1000
ubuntu@ip-172-31-172-244:~$
```

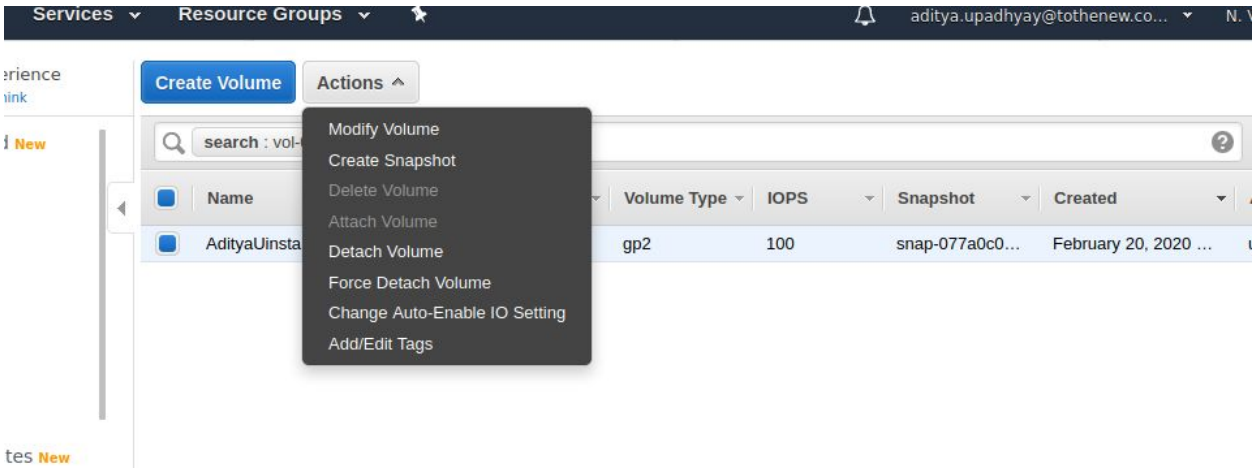
```
ubuntu@ip-172-31-172-244:~$ cd testing/
ubuntu@ip-172-31-172-244:~/testing$ ls
lost+found  test1  test2  test3  test4  test5  test6  test7  test8
ubuntu@ip-172-31-172-244:~/testing$
```

5. Make some mistake in fstab file, stop and start the instance, then troubleshoot it.

```
ubuntu@ip-172-31-172-244:~/testing$ cat /etc/fstab
LABEL=cloudimg-rootfs           ext4   defaults,discard        0 0
UUID=9ddc4b05-a757-46bb-940d-9d68c17adf4c       /home/ubuntu/testing    ext4    defaults        0       0
ubuntu@ip-172-31-172-244:~/testing$
```

```
ubuntu@ip-172-31-172-244:~/testing$ sudo vim abc.txt
sudo: unable to resolve host ip-172-31-172-244: Resource temporarily unavailable
ubuntu@ip-172-31-172-244:~/testing$
```



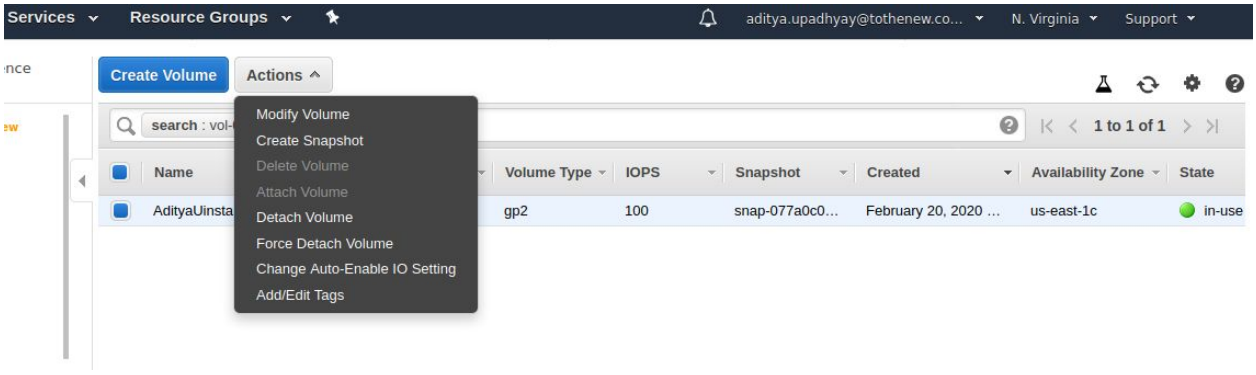


```
aditya@aditya-0:$ ssh -i "AdityaTTN.pem" ubuntu@ec2-3-92-187-159.compute-1.amazonaws.com
The authenticity of host 'ec2-3-92-187-159.compute-1.amazonaws.com (3.92.187.159)' can't be established.
ECDSA key fingerprint is SHA256:LWVeVpMt0aHlF20CTw0IlshME8G3FD/U8B1xLmJMCgo.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-3-92-187-159.compute-1.amazonaws.com,3.92.187.159' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Thu Feb 20 12:10:04 UTC 2020

  System load:  0.0               Processes:           86
  Usage of /:   13.6% of 7.69GB   Users logged in:     0
  Memory usage: 14%               IP address for eth0: 172.31.220.159
  Swap usage:   0%

0 packages can be updated.
0 updates are security updates.



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.
```

```
ubuntu@ip-172-31-220-159:~$ lsblk
NAME    MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
loop0     7:0    0   18M  1 loop /snap/amazon-ssm-agent/1480
loop1     7:1    0 89.1M  1 loop /snap/core/8268
xvda    202:0    0   10G  0 disk
└─xvda1 202:1    0    8G  0 part /
xvdf    202:80   0    8G  0 disk
└─xvdf1 202:81   0    8G  0 part
ubuntu@ip-172-31-220-159:~$ sudo mount /dev/xvdf1 /mnt
ubuntu@ip-172-31-220-159:~$ cd /mnt
ubuntu@ip-172-31-220-159:/mnt$ ls
bin   dev  home        initrd.img.old  lib64       media  opt   root  sbin  srv  tmp  var      vmlinuz.old
boot  etc  initrd.img  lib             lost+found  mnt    proc  run   snap  sys  usr  vmlinuz
ubuntu@ip-172-31-220-159:/mnt$ cd /etc
```

```
ubuntu@ip-172-31-220-159:/etc$ sudo vim fstab
ubuntu@ip-172-31-220-159:/etc$ cd /mnt/etc
ubuntu@ip-172-31-220-159:/mnt/etc$ sudo vim fstab
ubuntu@ip-172-31-220-159:/mnt/etc$
```

```
LABEL=cloudimg-rootfs   /        ext4   defaults,discard        0 0
UUID=9ddc4b05-a757-46bb-940d-9d68c17adf4c       /home/ubuntu/testing    ext4    defaults        0       0
~
~
```



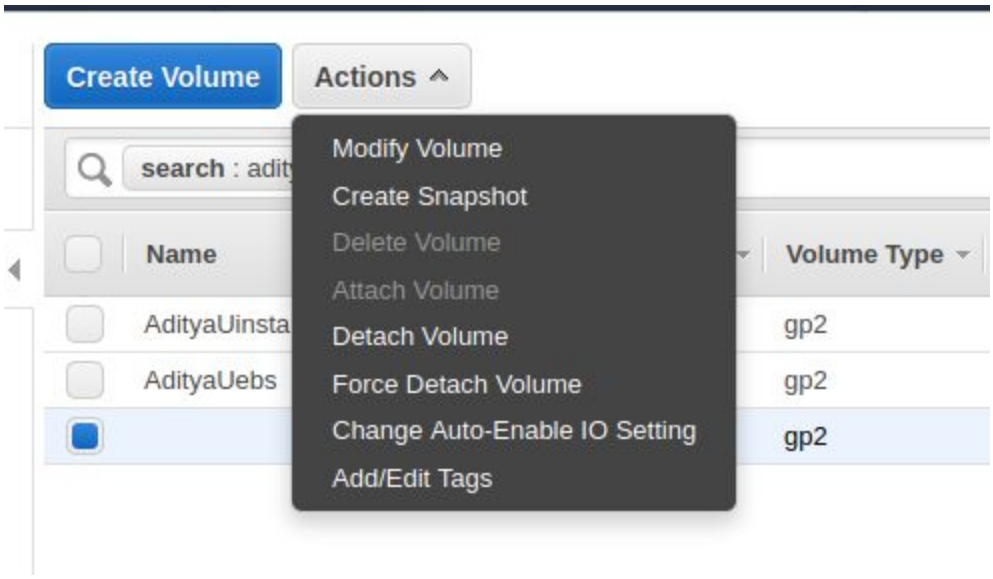
Name	Volume ID	Size	Volume Type	IOPS
AdityaUinsta…	vol-0c4a213…	8 GiB	gp2	100

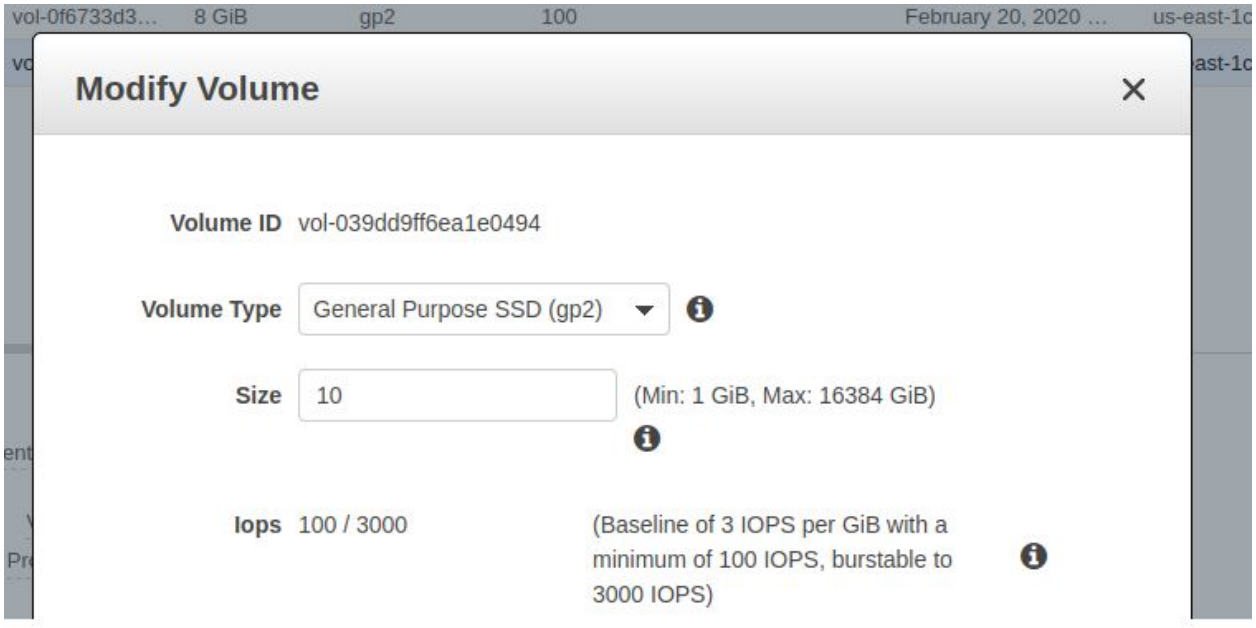
State	in-use
Attachment information	i-03e2f18b5be0e6d0b (AdityaUinstanceB):/dev/sda1 (attached)
Volume type	gp2
Product codes	-

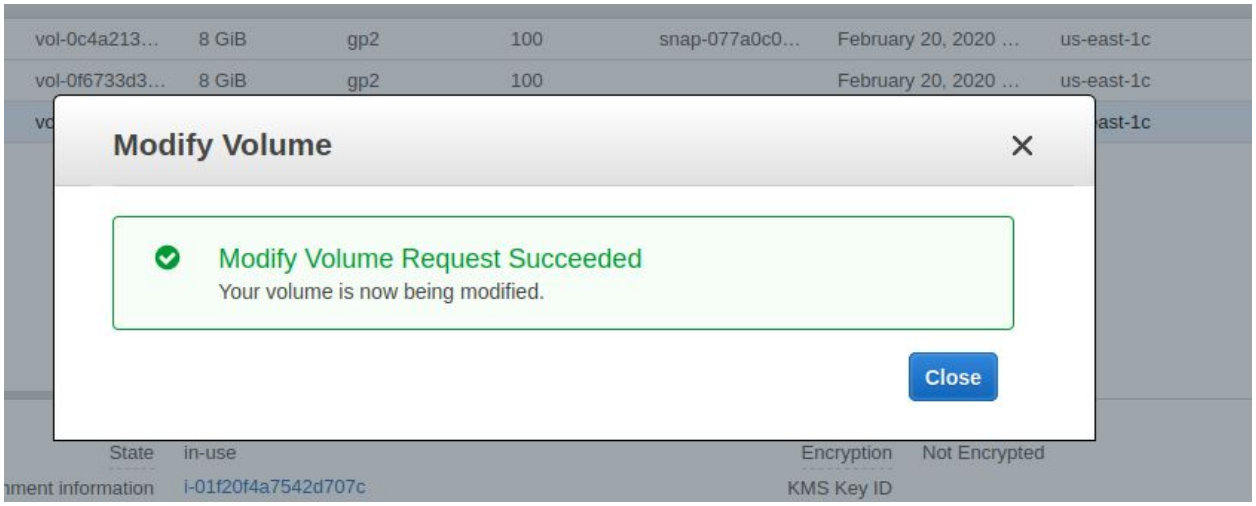
```
aditya@aditya-130:$ ssh -i "AdityaTTN.pem" ubuntu@ec2-52-91-78-127.compute-1.amazonaws.com
The authenticity of host 'ec2-52-91-78-127.compute-1.amazonaws.com (52.91.78.127)' can't be established.
ECDSA key fingerprint is SHA256:xl0sfxp/95Uny0DdTnr1XMV2lmlGiHDOzS8sRH1Ynvs.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-52-91-78-127.compute-1.amazonaws.com,52.91.78.127' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Thu Feb 20 12:21:06 UTC 2020

  System load:  0.26              Processes:           94
  Usage of /:   15.0% of 7.69GB   Users logged in:     0
  Memory usage: 15%               IP address for eth0: 172.31.172.244
  Swap usage:   0%


0 packages can be updated.
0 updates are security updates.


Last login: Thu Feb 20 08:20:52 2020 from 61.12.91.218
ubuntu@ip-172-31-172-244:~$ ls
testing
ubuntu@ip-172-31-172-244:~$ cd testing/
ubuntu@ip-172-31-172-244:~/testing$ ls
abc.txt  lost+found  test1  test2  test3  test4  test5  test6  test7  test8
ubuntu@ip-172-31-172-244:~/testing$ sudo vim abc.txt
ubuntu@ip-172-31-172-244:~/testing$
```

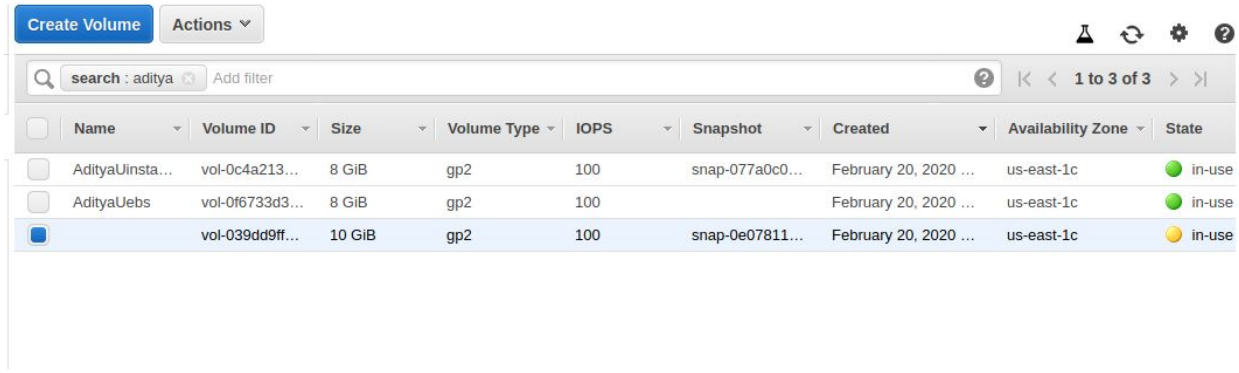
```
ubuntu@ip-172-31-172-244:~/testing$ sudo vim abc.txt
ubuntu@ip-172-31-172-244:~/testing$ sudo findmnt --verify
/
   [W] recommended root FS passno is 1 (current is 0)

0 parse errors, 0 errors, 1 warning
ubuntu@ip-172-31-172-244:~/testing$
```

6. Resize the EBS from 8 to 10GB

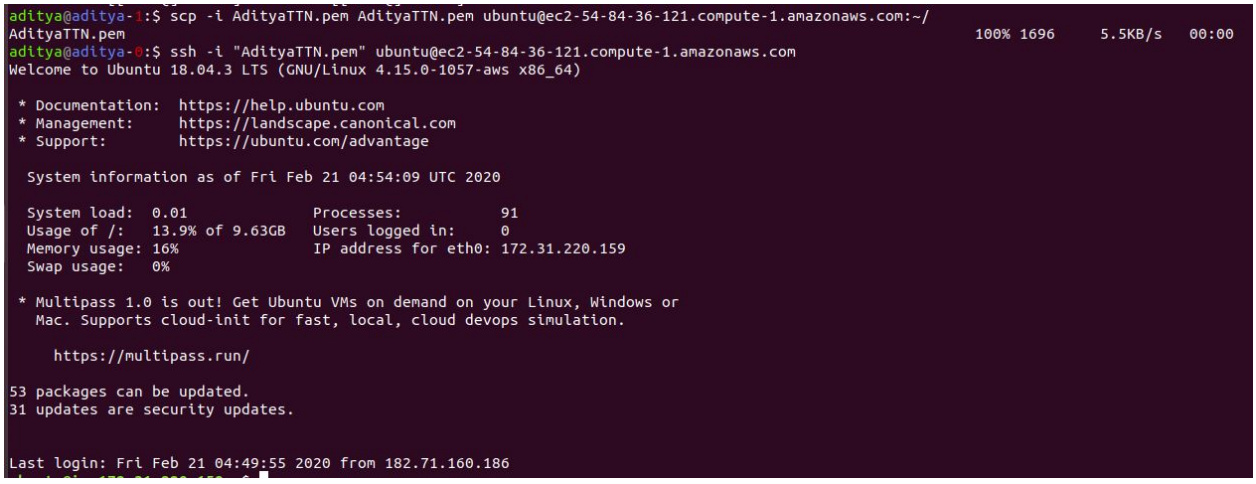






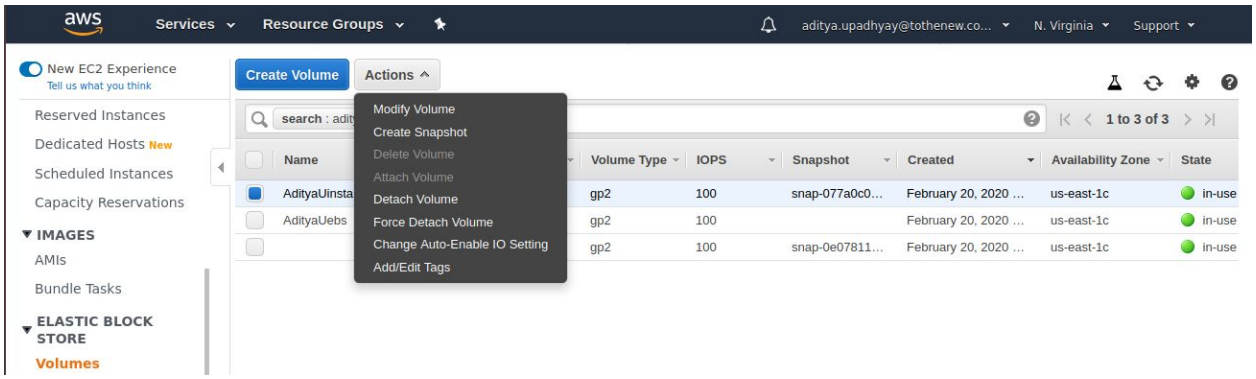


7. SSH from one instance A to instance B.



```
ubuntu@ip-172-31-220-159:~$ ls
AdityaTTN.pem
ubuntu@ip-172-31-220-159:~$ ssh -i AdityaTTN.pem 172.31.172.244
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Fri Feb 21 04:55:43 UTC 2020

  System load:  0.08              Processes:           89
  Usage of /:   18.6% of 7.69GB   Users logged in:     0
  Memory usage: 16%               IP address for eth0: 172.31.172.244
  Swap usage:   0%

 * Multipass 1.0 is out! Get Ubuntu VMs on demand on your Linux, Windows or
   Mac. Supports cloud-init for fast, local, cloud devops simulation.

     https://multipass.run/

53 packages can be updated.
31 updates are security updates.


Last login: Thu Feb 20 12:31:03 2020 from 61.12.91.218
ubuntu@ip-172-31-172-244:~$
```

8. Copy the EBS in different region(oregon).



Volumes > Create Snapshot

Create Snapshot

Volume vol-0c4a2137c90f48fa6

Description snapshot to copy in another region

Encrypted Not Encrypted

Key (128 characters maximum)	Value (256 characters maximum)
Name	AdityaEBSsnappshot

Add Tag 49 remaining (Up to 50 tags maximum)

* Required

Cancel Create Snapshot

Volumes > Create Snapshot

Create Snapshot

Create Snapshot Request Succeeded

snap-085bc2e807004e2ff

Manage Fast Snapshot Restore Close

aws Services Resource Groups aditya.upadhyay@tothenew.co... N. Virginia Support

New EC2 Experience
Tell us what you think

- Reserved Instances
- Dedicated Hosts New
- Scheduled Instances
- Capacity Reservations

IMAGES

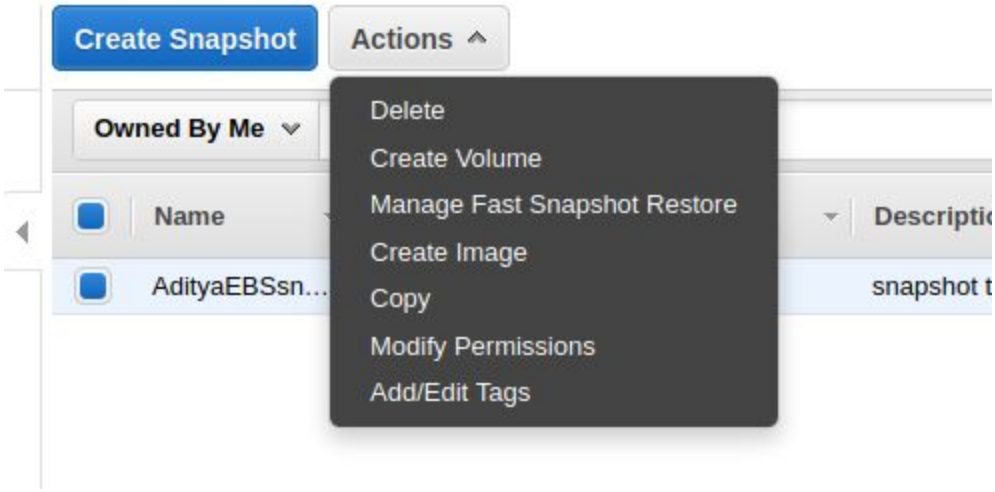
- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

Create Snapshot Actions

Owned By Me search : aditya Add filter 1 to 1 of 1

Name	Snapshot ID	Size	Description	Status	Started
AdityaEBSsn...	snap-085bc2e8070...	8 GiB	snapshot to copy in another region	completed	February 21, 2



Copy Snapshot

This snapshot, **snap-085bc2e807004e2ff (AdityaEBSsnappshot)**, will be copied to a new snapshot. Set the new snapshot settings below:

Destination Region US West (Oregon)

Description [Copied snap-085bc2e807004e2ff from us-east-1] snapshot to

Encryption Encrypt this snapshot

Cancel Copy

Copy Snapshot

This snapshot, **snap-085bc2e807004e2ff (AdityaEBSsnappshot)**, will be copied to a new snapshot. Set the new snapshot settings below:

Destination Region US West (Oregon)

Description [Copied snap-085bc2e807004e2ff from us-east-1] snapshot to

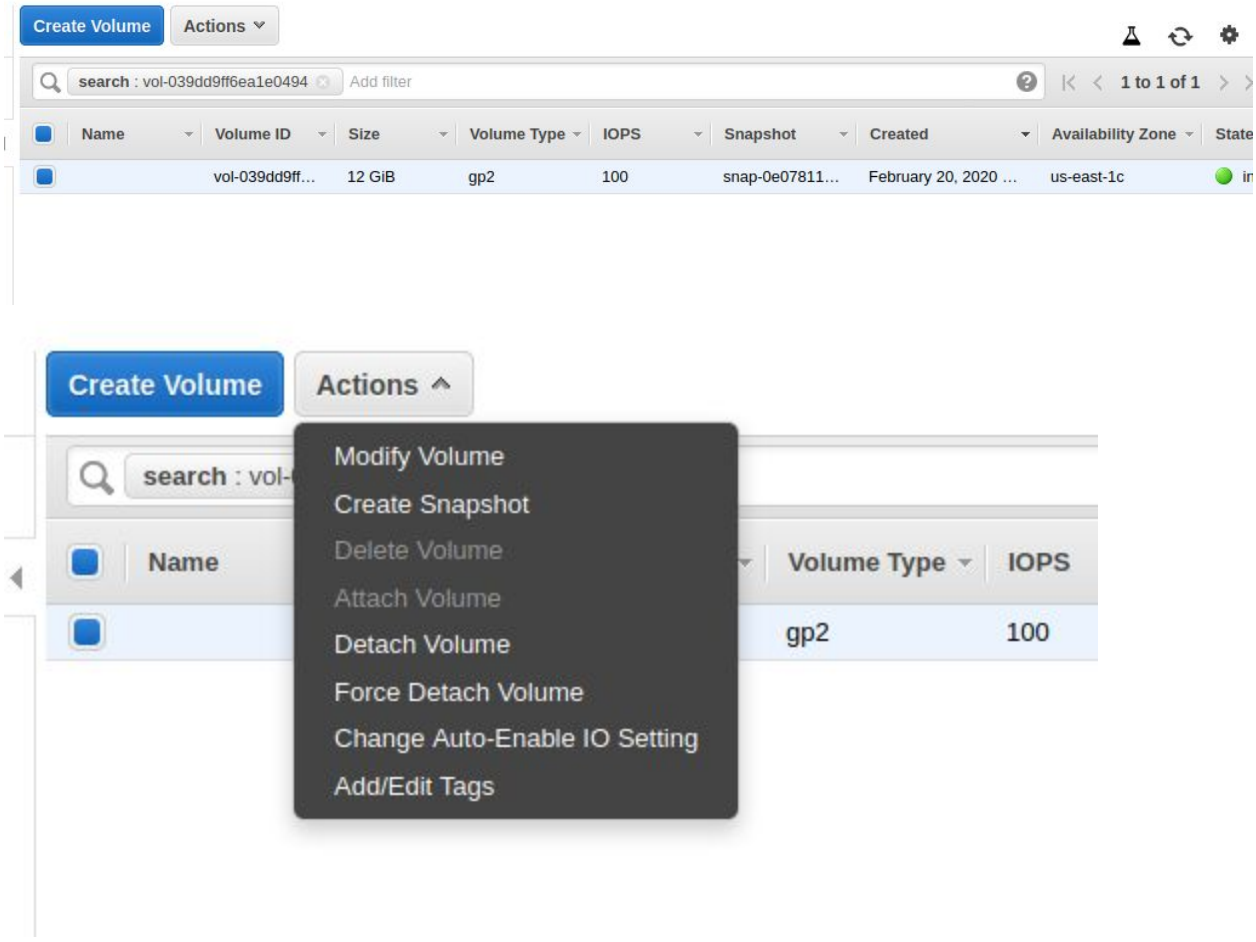
Encryption Encrypt this snapshot

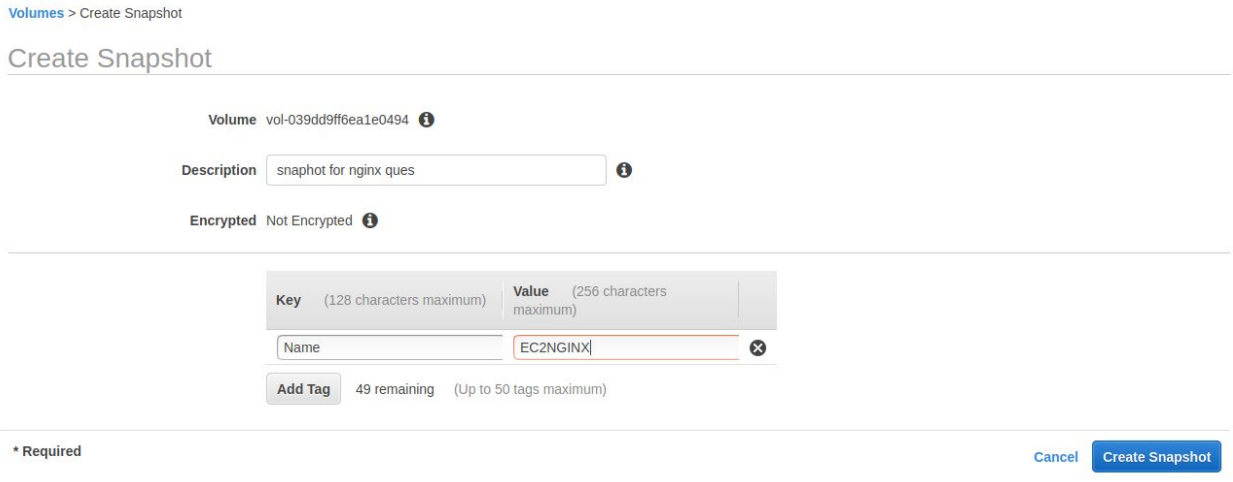
Error copying Snapshot

You are not authorized to perform this operation. Encoded authorization failure message: 6vPMC5Uagm84ivi5_7lrm5A_-rZ8pD3wla9Z9EQrIpdoR3TccT_NkupBuljU_UQPB7k2FKj9G5APWSws6wSIOQ56Pq2jJvROlXBed54YfVTmRa_pJ_rsTkZteFd5xcd3a0O6WVwzNaezZRHAz4_KulbLp5q5_gTGV0iuuolRQBl4zSwT-eaynO8OrP6iq0mqdYvh1rc-qboH4T2ehSJM6sxVK2Ul-ywzKUsxNxfh-rPeaPqAol6ToMV-iO_boKuTIOenxxHe5JcMZ3F7skR0wBo4MvpxoHgt8wqzt8On6FX2coRPYHE7d_0KqJta5kGw3_y588-jH-rhzjySbF360tqxSWBxyhrNJqkEDrJgGiaRkxSKlsFGcFyh2dOUbJ2wPsgdYVhgz2LbXw5Km6gHUo9J6InM1K2pLjVY8BKfAcV025UpYagzncK6N2XRzcIYV39KPBocegZwLgLoolnM-RoglRLKOMFgi7XrmfHjtxTVFqAjd2k3dM4g-YpkR-reOqjTpi9yQD81u_qnQlpvvGNEknKu33g

Cancel Copy

9. Deatach the root EBS, create its snapshot, than create the AMI and run it as instance such that nginx should be preinstalled at the boot time of instance.





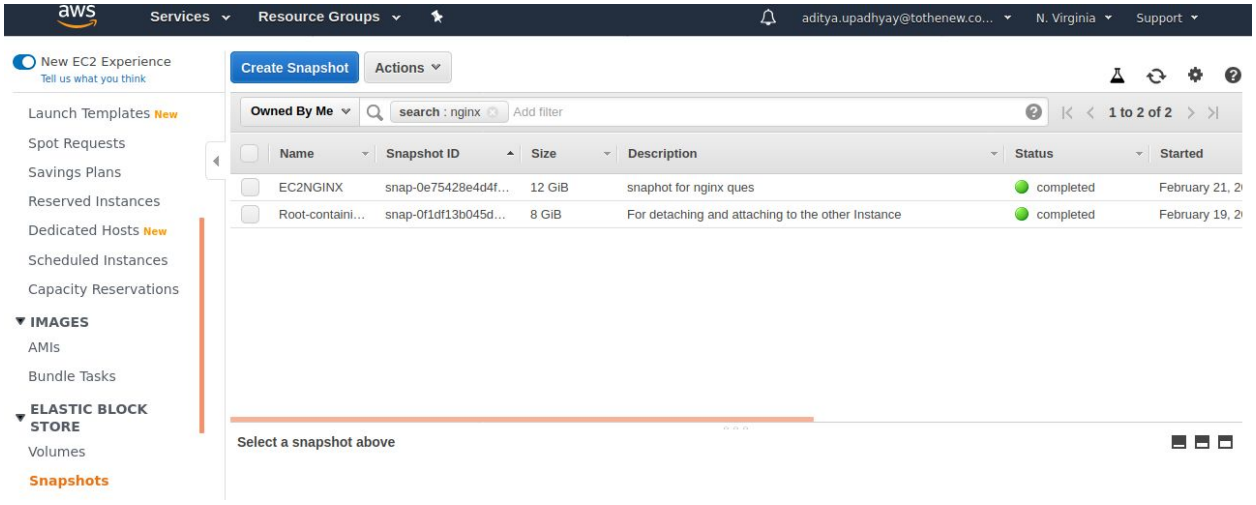
Volumes > Create Snapshot

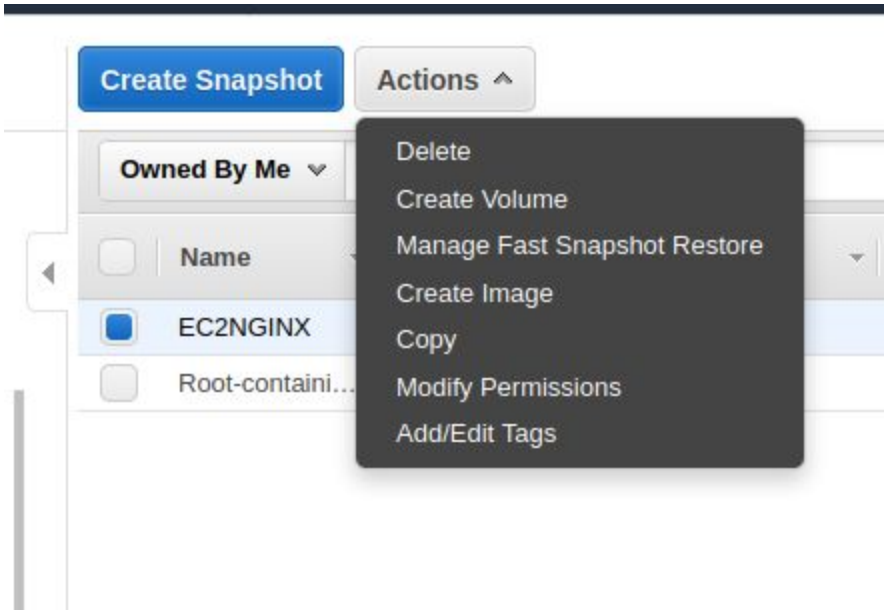
Create Snapshot

Create Snapshot Request Succeeded

snap-0e75428e4d4f90bb3

Manage Fast Snapshot Restore | Close





Create Image from EBS Snapshot

Name	nginxAditya	Description	installing nginx
Architecture	x86_64	Virtualization type	Hardware-assisted virtualization
Root device name	/dev/sda1	Kernel ID	Use default
RAM disk ID	Use default		

Block Device Mappings

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/sda1	snap-0e75428e4d4f90bb3	12	General Purpose	100 / 3000	N/A	☑	Not Encrypted

Add New Volume

Cancel Create

Create Image from EBS Snapshot

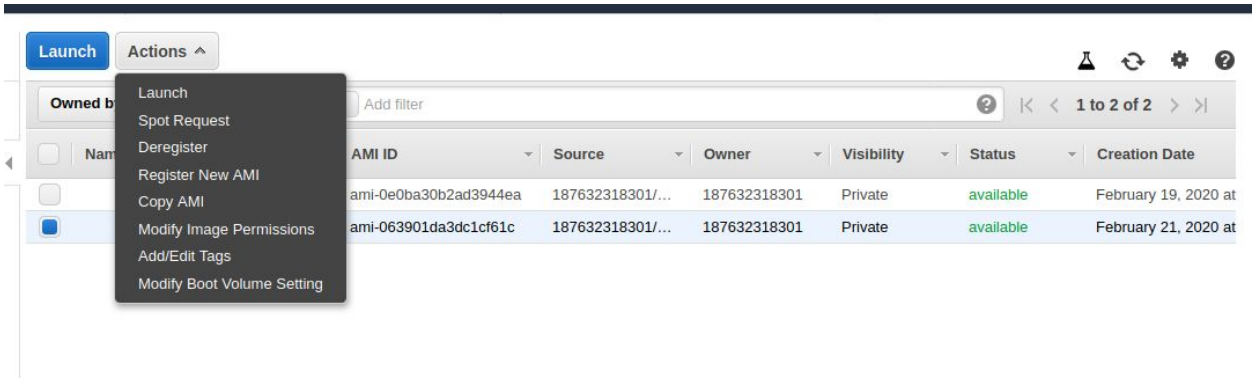
Create Image request received.
View pending image ami-063901da3dc1cf61c

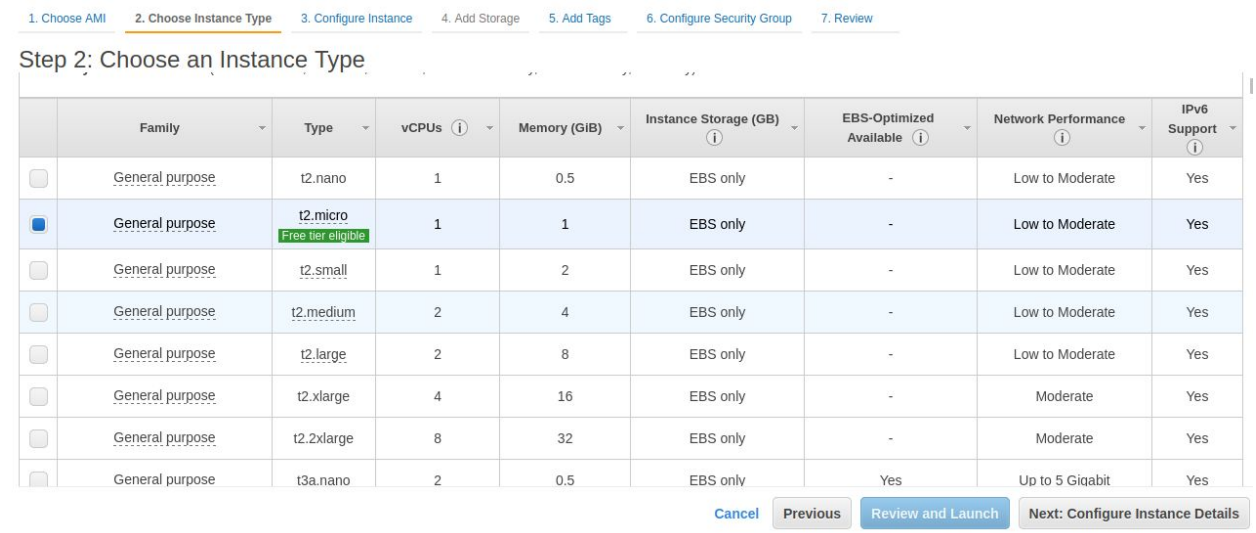
Close

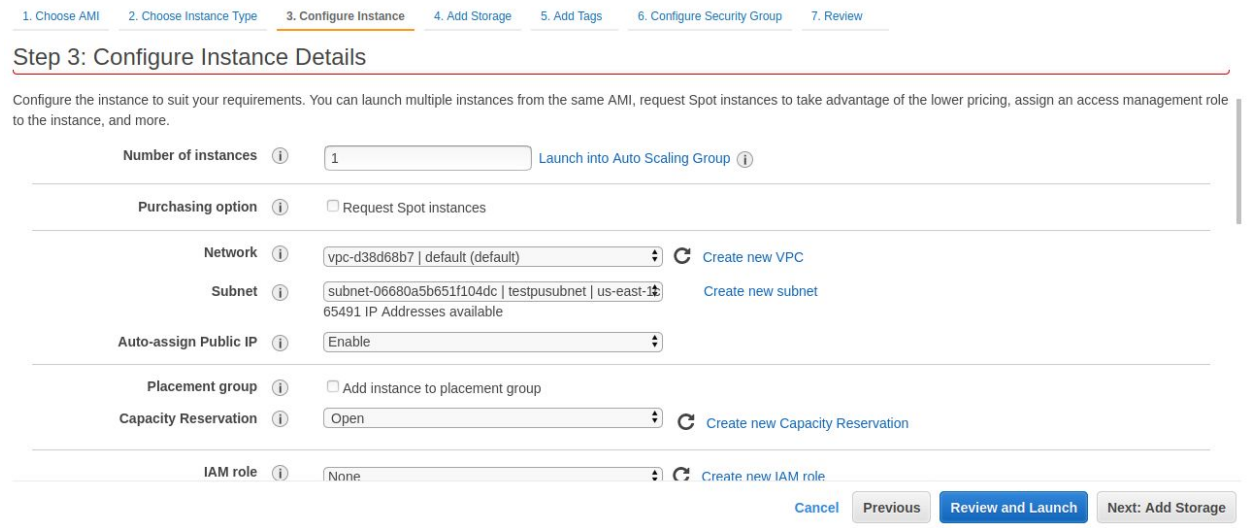
Launch Actions

Owned by me | search : nginx | Add filter | 1 to 2 of 2

Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
	Fahad-Nginx	ami-0e0ba30b2ad3944ea	187632318301/...	187632318301	Private	available	February 19, 2020 at
	nginxAditya	ami-063901da3dc1cf61c	187632318301/...	187632318301	Private	available	February 21, 2020 at


Launch
Actions
Launch
Spot Request
Deregister
Register New AMI
Copy AMI
Modify Image Permissions
Add/Edit Tags
Modify Boot Volume Setting
Add filter
1 to 2 of 2
AMI ID
Source
Owner
Visibility
Status
Creation Date
ami-0e0ba30b2ad3944ea
187632318301/...
187632318301
Private
available
February 19, 2020 at
ami-063901da3dc1cf61c
187632318301/...
187632318301
Private
available
February 21, 2020 at


1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 2: Choose an Instance Type
Family
Type
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
IPv6 Support
General purpose
t2.nano
1
0.5
EBS only
-
Low to Moderate
Yes
General purpose
t2.micro
Free tier eligible
1
1
EBS only
-
Low to Moderate
Yes
General purpose
t2.small
1
2
EBS only
-
Low to Moderate
Yes
General purpose
t2.medium
2
4
EBS only
-
Low to Moderate
Yes
General purpose
t2.large
2
8
EBS only
-
Low to Moderate
Yes
General purpose
t2.xlarge
4
16
EBS only
-
Moderate
Yes
General purpose
t2.2xlarge
8
32
EBS only
-
Moderate
Yes
General purpose
t3a.nano
2
0.5
EBS only
Yes
Up to 5 Gigabit
Yes
Cancel
Previous
Review and Launch
Next: Configure Instance Details


1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 3: Configure Instance Details
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.
Number of instances
1
Launch into Auto Scaling Group
Purchasing option
Request Spot instances
Network
vpc-d38d68b7 | default (default)
Create new VPC
Subnet
subnet-06680a5b651f104dc | testpusubnet | us-east-1
Create new subnet
65491 IP Addresses available
Auto-assign Public IP
Enable
Placement group
Add instance to placement group
Capacity Reservation
Open
Create new Capacity Reservation
IAM role
None
Create new IAM role
Cancel
Previous
Review and Launch
Next: Add Storage

Step 3: Configure Instance Details

File systems | Add file system | Create new file system

▾ Network interfaces

Device	Network Interface	Subnet	Primary IP	Secondary IP addresses	IPv6 IPs
eth0	New network interfac	subnet-06680a	Auto-assign	Add IP	Add IP

Add Device

▾ Advanced Details

User data: As text / As file / Input is already base64 encoded

```
#!/bin/bash
sudo apt -y update
sudo apt install -y nginx
```

Cancel | Previous | Review and Launch | Next: Add Storage

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. Learn more about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-0e75428e4d4f90bb3	12	General Purpose SSD (gp2)	100 / 3000	N/A	☑	Not Encrypte

Add New Volume

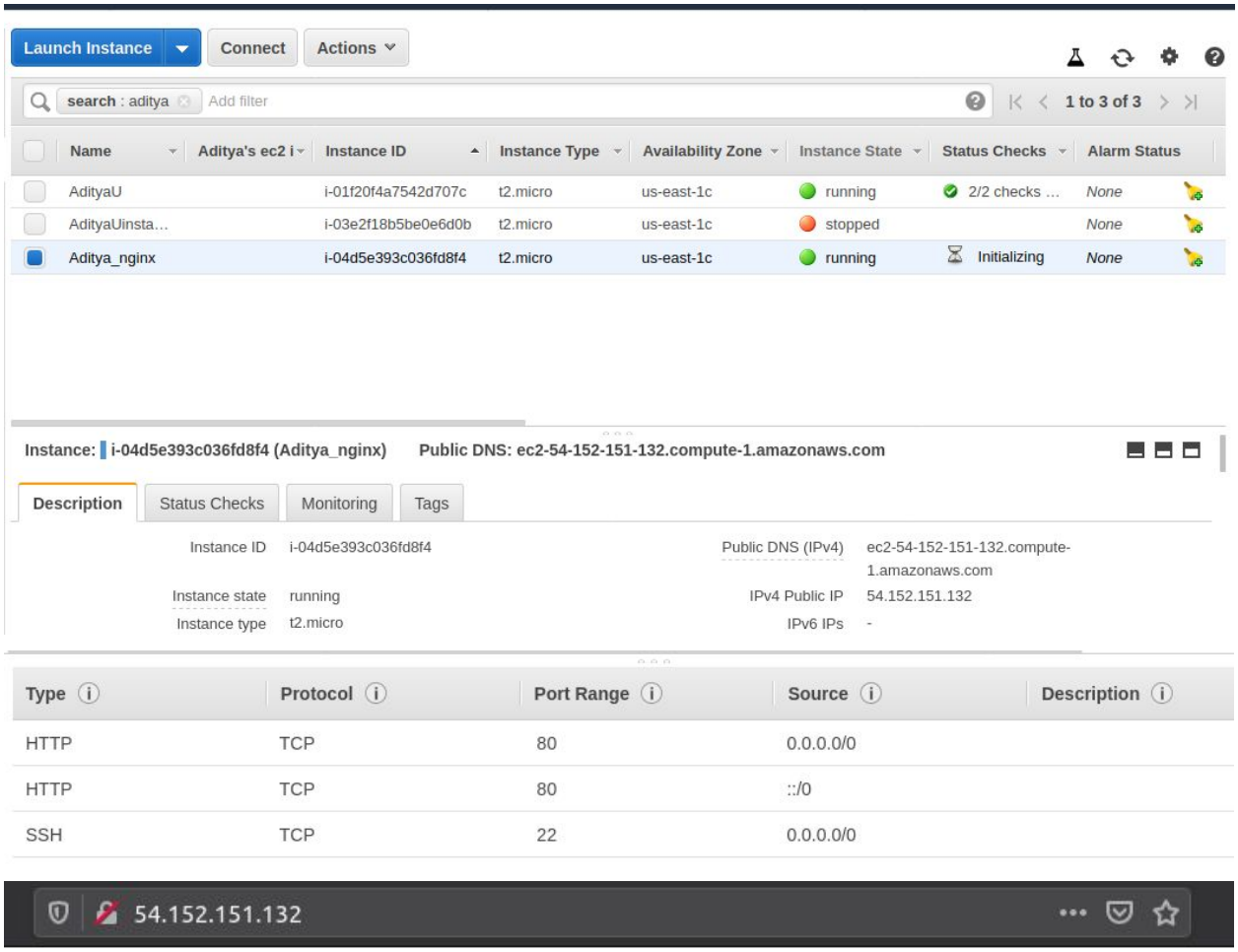
Launch Status

Your instances are now launching

The following instance launches have been initiated: i-04d5e393c036fd8f4 View launch log

Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).



Type	Protocol	Port Range	Source	Description
HTTP	TCP	80	0.0.0.0/0	
HTTP	TCP	80	::/0	
SSH	TCP	22	0.0.0.0/0