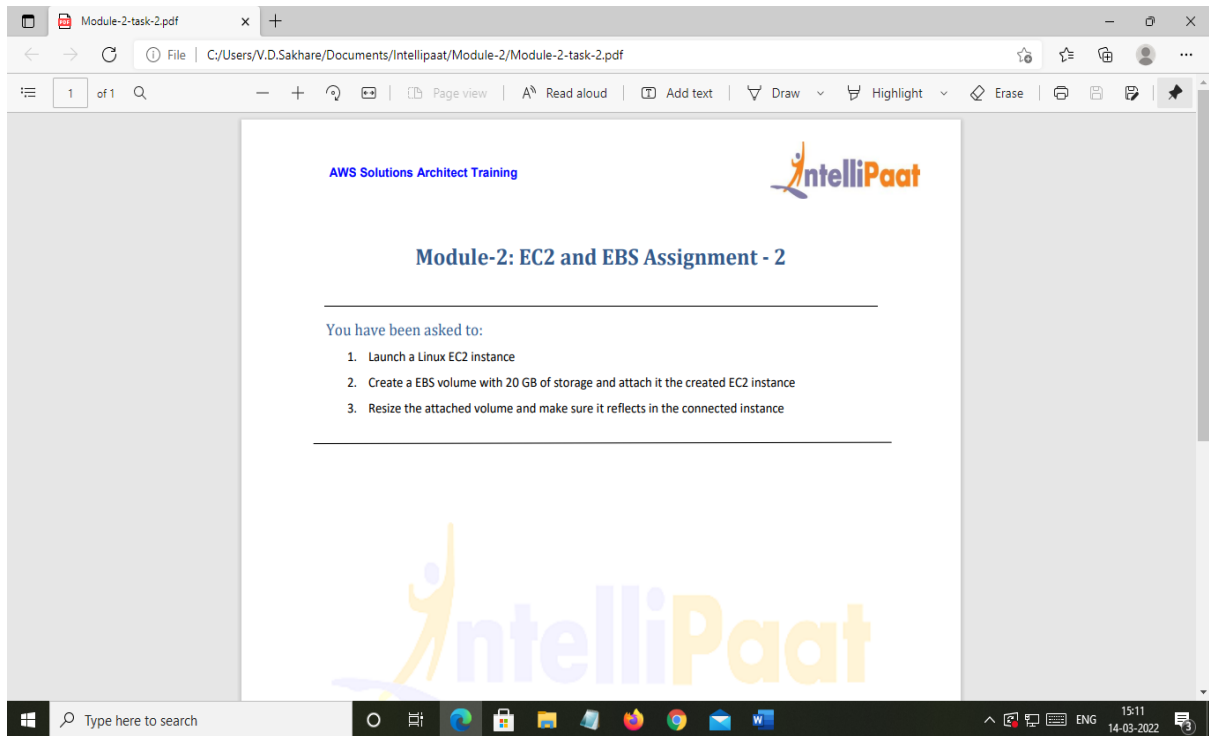
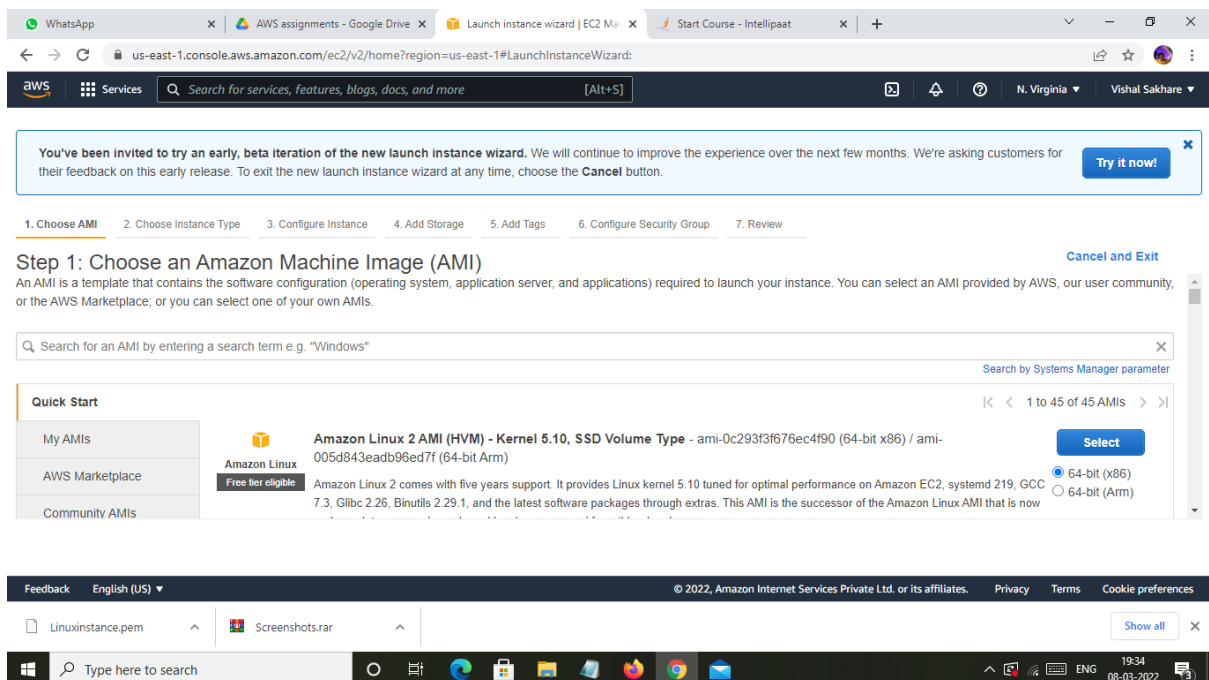


Module-2: EC2 and EBS Assignment – 2



Launch a Linux EC2 instance



us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

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

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.
A copy of a tag can be applied to volumes, instances or both.
Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	Value	Instances	Volumes	Network Interfaces
Name	Linux-EC2-Instance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[Add another tag](#) (Up to 50 tags maximum)

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Security Group](#)

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us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

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

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☐ Create a new security group ☒ Select an existing security group

Security Group ID	Name	Description	Actions
sg-0ef67e25c09d7057b	default	default VPC security group	Copy to new

Inbound rules for sg-0ef67e25c09d7057b (Selected security groups: sg-0ef67e25c09d7057b)

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

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us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

aws Services Search for services, features, blogs, docs, and more [Alt+S] N. Virginia Vishal Sakhare

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

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

Improve your instances' security. Your security group, default, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only. You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details [Edit AMI](#)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type - ami-0c293f3f676ec4f90

Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is n...

Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance

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- Create a EBS volume with 20 GB of storage and attach it the created EC2 instance

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us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#CreateVolume:

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Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type [Info](#)

General Purpose SSD (gp2)

Size (GiB) [Info](#)

20

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)

100 / 3000

Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Throughput (MiB/s) [Info](#)

Not applicable

Availability Zone [Info](#)

us-east-1a

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WhatsApp x AWS assignments - Google Drive x Attach volume | EC2 Management x Start Course - Intellipaat x

us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#AttachVolume:volumeId=vol-0c6dc09166a41c021

aws Services Search for services, features, blogs, docs, and more [Alt+S]

Volume ID
vol-0c6dc09166a41c021

Availability Zone
us-east-1a

Instance Info
i-01f12adfdc8d9121c

Device name Info
/dev/sdf

Linux device names: /dev/sdf through /dev/sdp

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 volume

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us-east-1.console.aws.amazon.com/ec2/v2/home?region=us-east-1#Volumes:

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New EC2 Experience Tell us what you think

EC2 Dashboard
EC2 Global View
Events
Tags
Limits

Instances
Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Successfully attached volume vol-0c6dc09166a41c021 to instance i-01f12adfdc8d9121c.

Volumes (2)

Filter volumes

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
<input type="checkbox"/>	-	vol-092fd6e1eb534ae3a	gp2	8 GiB	100	-	snap-0f40392...	2022/03/08
<input type="checkbox"/>	-	vol-0c6dc09166a41c021	gp2	20 GiB	100	-	-	2022/03/08

Select a volume above

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Instances (1/2) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Linux-EC2-Inst...	i-01f12adfdc8d9121c	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a
Linux	i-0d9e3b9d56b9a3ee4	Terminated	t2.micro	-	No alarms	us-east-1b

Instance: i-01f12adfdc8d9121c (Linux-EC2-Instance)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-01f12adfdc8d9121c (Linux-EC2-Instance)	3.216.31.227 open address	172.31.10.131
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-3-216-31-227.compute-1.amazonaws.com

Linux-EC2-Instance.pem Linuxinstance.pem Screenshots.rar

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19:41 08-03-2022

- Resize the attached volume and make sure it reflects in the connected instance

Modify the type, size, and performance of an EBS volume.

Volume details

Volume ID

vol-0c6dc09166a41c021

Volume type Info

General Purpose SSD (gp2)

Size (GiB) Info

25

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS Info

100/3000

Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Cancel Modify

Linux-EC2-Instance.pem Linuxinstance.pem Screenshots.rar

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19:42 08-03-2022

- Resize the attached volume and make sure it reflects in the connected instance


```
ec2-user@ip-172-31-10-131:~$ https://aws.amazon.com/amazon-linux-2/
No packages needed for security; 1 packages available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-10-131 ~]$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                               | 3.7 kB  00:00:00
Resolving Dependencies
--> Running transaction check
--> Package iproute.x86_64 0:4.15.0-1.amzn2.0.4 will be updated
--> Package iproute.x86_64 0:5.10.0-2.amzn2.0.1 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
 Package               Arch             Version              Repository            Size
=====================================================================================================================================
Updating:
iproute                x86_64           5.10.0-2.amzn2.0.1   amzn2extra-kernel-5.10 649 k
Transaction Summary
-----
Upgrade 1 Package

Total download size: 649 k
Is this ok [y/d/N]: y
Downloading packages:
Delta RPMs disabled because /usr/bin/applydelta not installed.
iproute-5.10.0-2.amzn2.0.1.x86_64.rpm | 649 kB  00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Updating : iproute-5.10.0-2.amzn2.0.1.x86_64 1/2
  Cleanup  : iproute-4.15.0-1.amzn2.0.4.x86_64 2/2
  Verifying : iproute-5.10.0-2.amzn2.0.1.x86_64 1/2
  Verifying : iproute-4.15.0-1.amzn2.0.4.x86_64 2/2

Updated:
  iproute.x86_64 0:5.10.0-2.amzn2.0.1

Complete!
[ec2-user@ip-172-31-10-131 ~]$
```

```
ec2-user@ip-172-31-10-131:~$ [ec2-user@ip-172-31-10-131 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0 8G  0 disk
└─xvda1    202:1    0 8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$
```

```
ec2-user@ip-172-31-10-131:~$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/ xvda
/dev/: directory
xvda: cannot open (No such file or directory)
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/xvdf
/dev/xvdf: data
[ec2-user@ip-172-31-10-131 ~]$
```

```
ec2-user@ip-172-31-10-131:~$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/ xvda
/dev/: directory
xvda: cannot open (No such file or directory)
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/xvdf
/dev/xvdf: data
[ec2-user@ip-172-31-10-131 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$
```



```
ec2-user@ip-172-31-10-131:~$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/ xvda
/dev/: directory
xvda: cannot open (No such file or directory)
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/xvdf
/dev/xvdf: data
[ec2-user@ip-172-31-10-131 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ mkdir ebs
[ec2-user@ip-172-31-10-131 ~]$ ls
ebs
[ec2-user@ip-172-31-10-131 ~]$
```

```
ec2-user@ip-172-31-10-131:~$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/ xvda
/dev/: directory
xvda: cannot open (No such file or directory)
[ec2-user@ip-172-31-10-131 ~]$ sudo file -s /dev/xvdf
/dev/xvdf: data
[ec2-user@ip-172-31-10-131 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$ mkdir ebs
[ec2-user@ip-172-31-10-131 ~]$ ls
ebs
[ec2-user@ip-172-31-10-131 ~]$ sudo mount /dev/xvdf ebs
mount: /home/ec2-user/ebs: wrong fs type, bad option, bad superblock on /dev/xvdf, missing codepage or helper program, or other error.
[ec2-user@ip-172-31-10-131 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda        202:0    0  8G  0 disk
└─xvda1    202:1    0  8G  0 part /
xvdf        202:80   0 25G  0 disk
[ec2-user@ip-172-31-10-131 ~]$
```

- Resize the attached volume and make sure it reflects in the connected instance