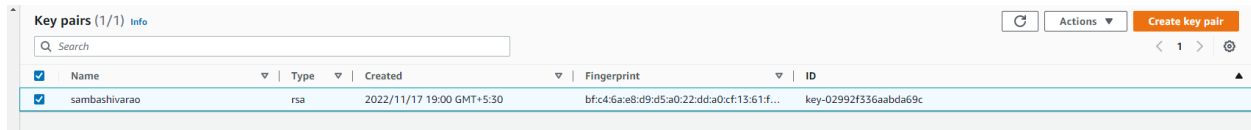


EC2 instances (2 machines - 1st machine - name, 2nd machine - surname)

Create Key pair



<input checked="" type="checkbox"/>	Name	Type	Created	Fingerprint	ID
<input checked="" type="checkbox"/>	sambashivarao	rsa	2022/11/17 19:00 GMT+5:30	bf:c4:6a:e8:d9:d5:a0:22:dd:a0:cf:13:61:f...	key-Q2992f336aabda69c


Launch Instance:

Name and tags [Info](#)


Name
 [Add additional tags](#)

▼ **Application and OS Images (Amazon Machine Image)** [Info](#)
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below


Recents **Quick Start**



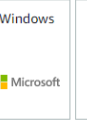
Amazon Linux



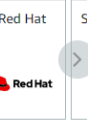
macOS




Ubuntu



Windows



Red Hat



Browse more AMIs
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

▼ **Key pair (login)** [Info](#)
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*
 [Create new key pair](#)

▼ **Network settings** [Info](#) [Edit](#)

Network [Info](#)
vpc-0b54e32eb74564fe2

Subnet [Info](#)
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)
Enable

Firewall (security groups) [Info](#)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

Connect to Instance Machine 1, Connect with RPD Client:


- Select Connect option
- Select Type RDP client
- Get password by using the .pem file
- Download remote desktop File

Instance ID


 i-04d974cec83976848 (sambashivarao)

Connection Type

- Connect using RDP client**
Download a file to use with your RDP client and retrieve your password.

- Connect using Fleet Manager**
To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#) 

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:


 [Download remote desktop file](#)

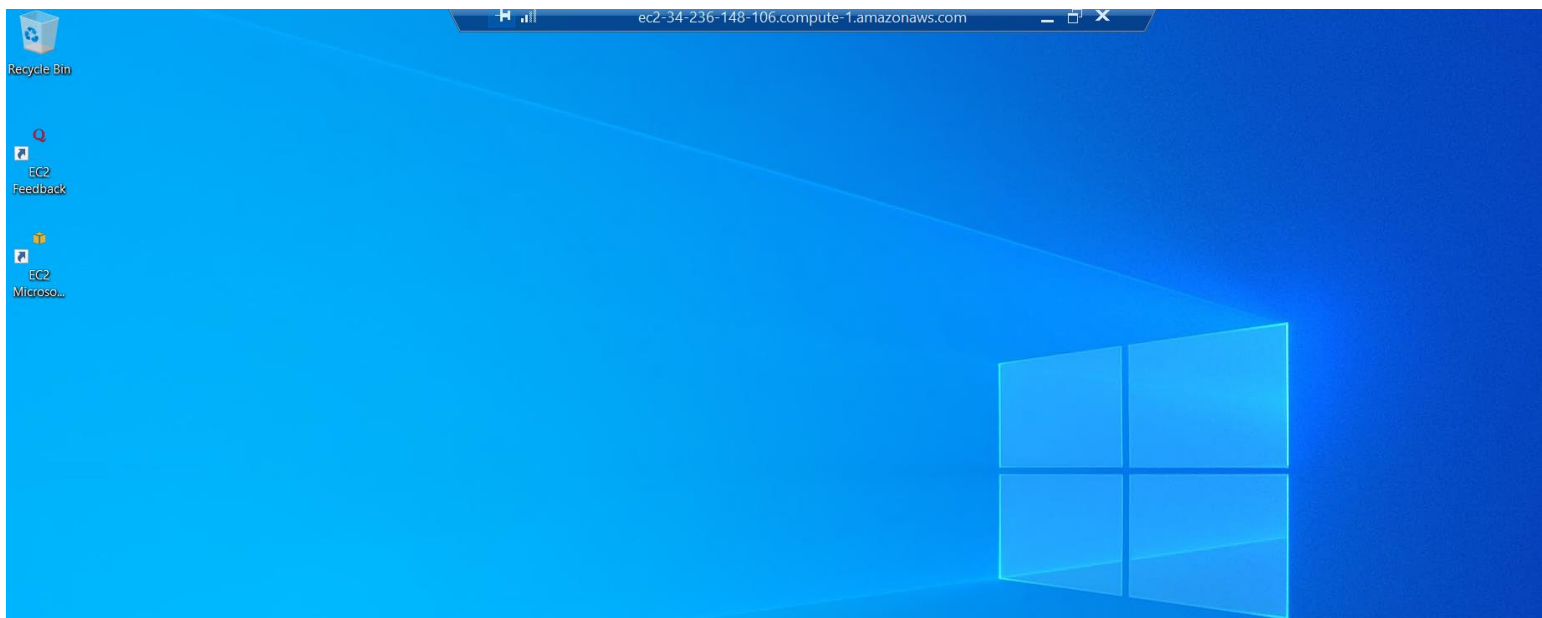
When prompted, connect to your instance using the following details:

Public DNS

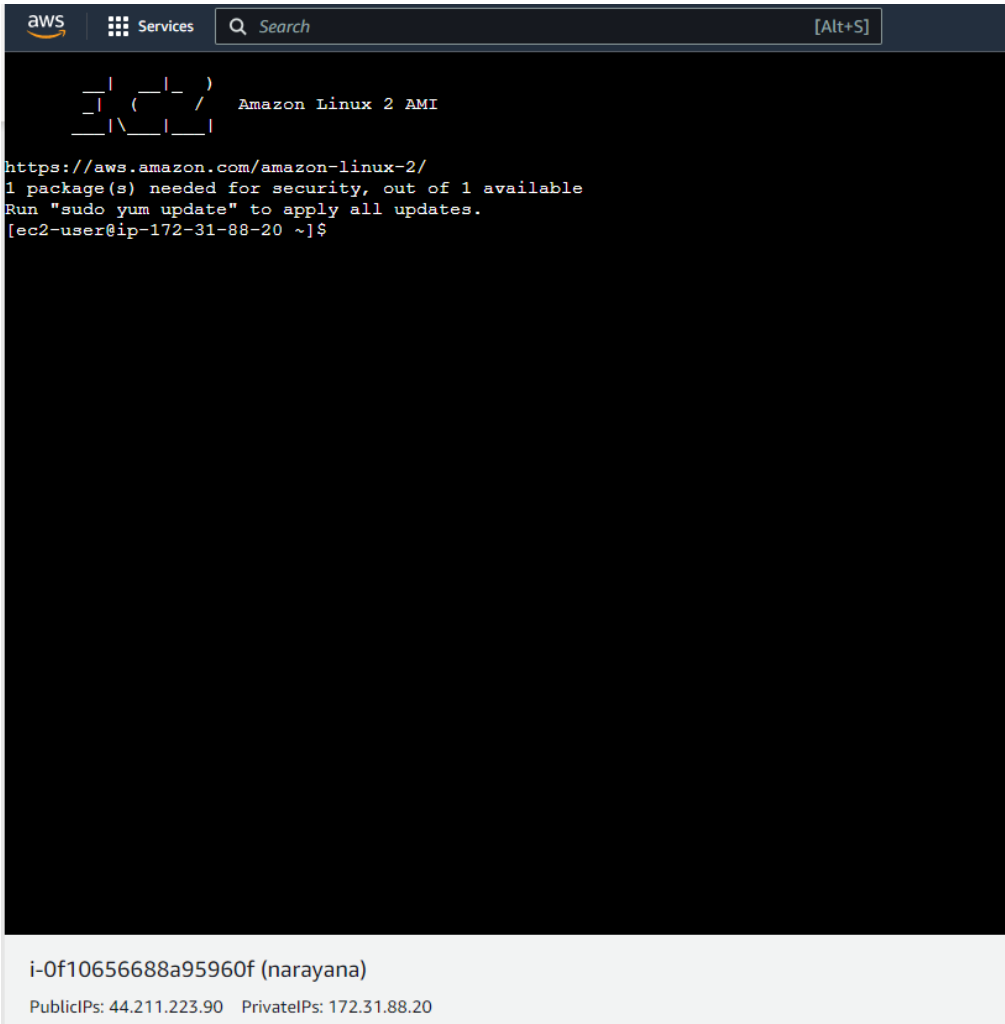
 ec2-34-236-148-106.compute-1.amazonaws.com

User name

 Administrator

Connect to the computer:

Second instance – narayana



The screenshot shows the AWS console interface with a terminal window open. The terminal displays the following text:

```

  _ | _ | _ )
  _ | ( _ | /
  _ | \ _ | _ |

Amazon Linux 2 AMI

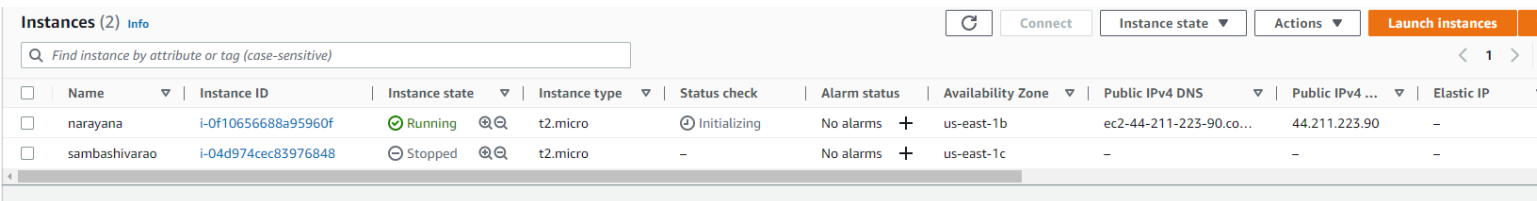
https://aws.amazon.com/amazon-linux-2/
1 package(s) needed for security, out of 1 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-88-20 ~]$

```

Below the terminal window, the instance details are shown:

i-0f10656688a95960f (narayana)
PublicIPs: 44.211.223.90 PrivateIPs: 172.31.88.20

Two Instances with (Sambashivarao, narayana)



The screenshot shows the AWS console 'Instances' page. The page title is 'Instances (2) Info'. There is a search bar with the placeholder text 'Find instance by attribute or tag (case-sensitive)'. The page contains a table with the following columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, Public IPv4 DNS, Public IPv4 ..., and Elastic IP. The table contains two rows of data:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
narayana	i-0f10656688a95960f	Running	t2.micro	Initializing	No alarms	us-east-1b	ec2-44-211-223-90.co...	44.211.223.90	-
sambashivarao	i-04d974cec83976848	Stopped	t2.micro	-	No alarms	us-east-1c	-	-	-

EBS volume

Before adding EBS to EC2:

Volumes (1)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state	Alarm status
-	vol-02c55e5293621b68b	gp2	30 GiB	100	-	snap-019dc1b...	2022/11/19 23:17 GMT+5...	us-east-1c	In-use	No alarms

Create volume:

EC2 > Volumes > Create volume

Create volume [Info](#)

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](#)
100
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)
300 / 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

Snapshot ID - optional [Info](#)
Don't create volume from a snapshot

Encryption [Info](#)
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
 Encrypt this volume

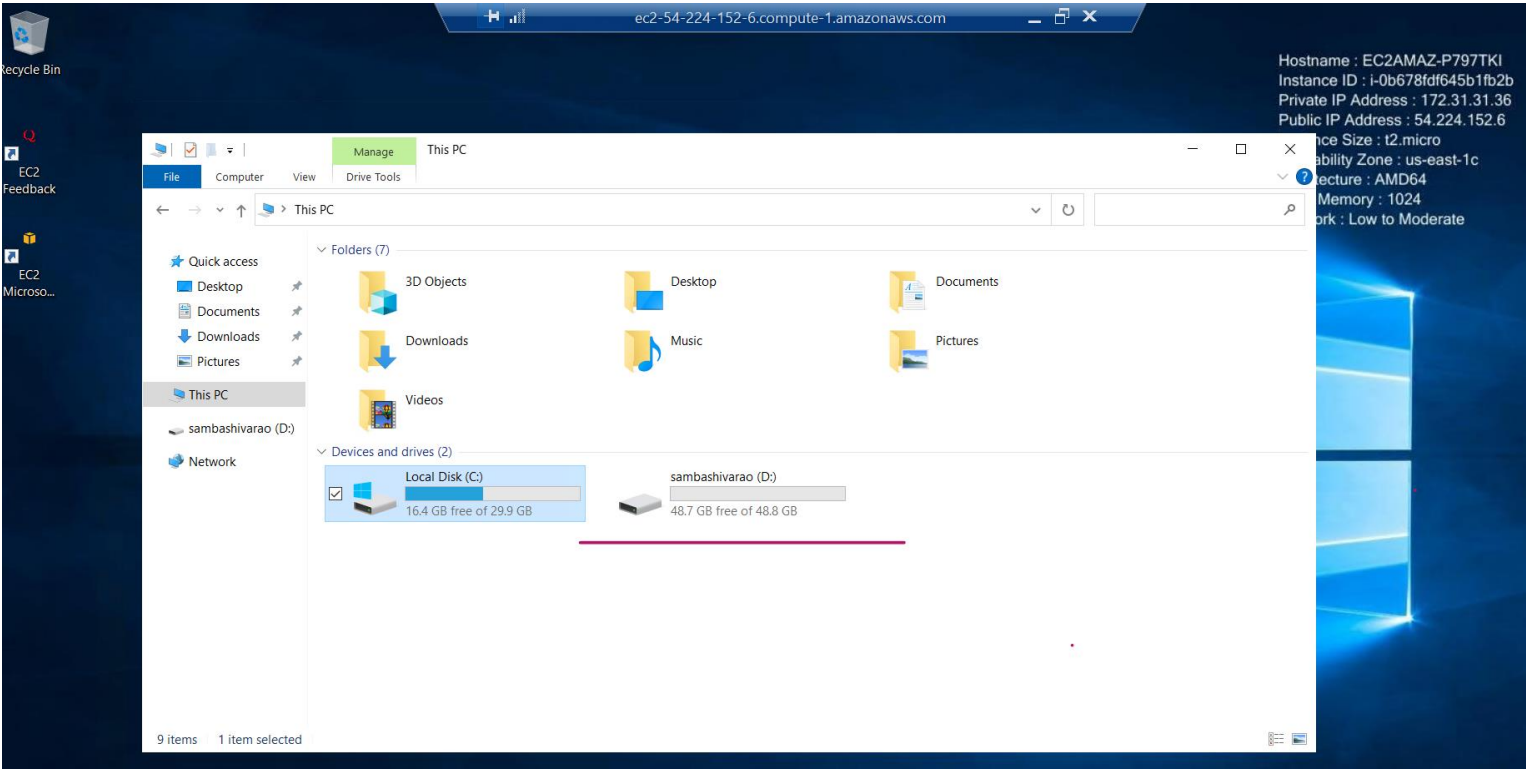
1. After Creating new volume.
2. Attaching new volume to instance
3. Need to select same availability zone where instance have created

Volumes (1/2)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state
<input checked="" type="checkbox"/> system default	vol-02c55e5293621b68b	gp2	30 GiB	100	-	snap-019dc1b...	2022/11/19 23:17 GMT+5...	us-east-1c	In-use
<input type="checkbox"/> sambashivarao Narayana	vol-0fe6986def00a2710	gp2	110 GiB	330	-	-	2022/11/19 23:49 GMT+5...	us-east-1c	In-use

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted	KMS key ID	Delete on termination
vol-02c55e5293621b68b	/dev/sda1	30	Attached	Sat Nov 19 2022 23:17:14 G...	No	-	Yes
vol-0fe6986def00a2710	xvdf	110	Attached	Sat Nov 19 2022 23:51:27 G...	No	-	No



Newly created volume of 110gb disk space allocated to the newly created instance with 48gb.

Snapshot

1. Creating Snapshot of instance type.

Snapshot settings

Resource type [Info](#)

Volume
Create a snapshot from a specific volume.

Instance
Create multi-volume snapshots from an instance.

Instance ID

The instance from which to create multi-volume snapshots.

Select an instance
i-0b678fdf645b1fb2b
narayana sambashiva rao

Volumes - optional [Info](#)

By default, all volumes attached to the instance are included in the multi-volume snapshot set. You can optionally exclude the root volume or specific data volumes. You can also indicate whether to copy the tags from the source volumes to the snapshots.

Exclude volumes

Indicate whether to exclude the root volume or specific data volumes from the snapshot set.

- Exclude root volume (vol-02c55e5293621b68b, Not encrypted)
- Exclude specific data volumes

Attached data volumes (1/1) [Info](#)

Select the volumes that you want to exclude.

<input checked="" type="checkbox"/>	Volume ID ▲	Create snapshot ▼	Volume name ▼	Encryption ▼
<input checked="" type="checkbox"/>	vol-0fe6986def00a2710	no	sambashivarao Narayana	Not encrypted

Creating Snapshot of Volume type.

Create snapshot [Info](#)

Create a point-in-time snapshot of an EBS volume and use it as a baseline for new volumes or for data backup. You can create snapshots from an individual volume, or you can create multi-volume snapshots from all of the volumes attached to an instance.


Snapshot settings

Resource type [Info](#)

Volume
Create a snapshot from a specific volume.

Instance
Create multi-volume snapshots from an instance.

Volume ID
The volume from which to create the snapshot.

Select a volume 

Q

Select a volume

vol-02c55e5293621b68b
system default

vol-0fe6986def00a2710
sambashivarao Narayana

Tags [Info](#)










A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with the resource.

Add tag

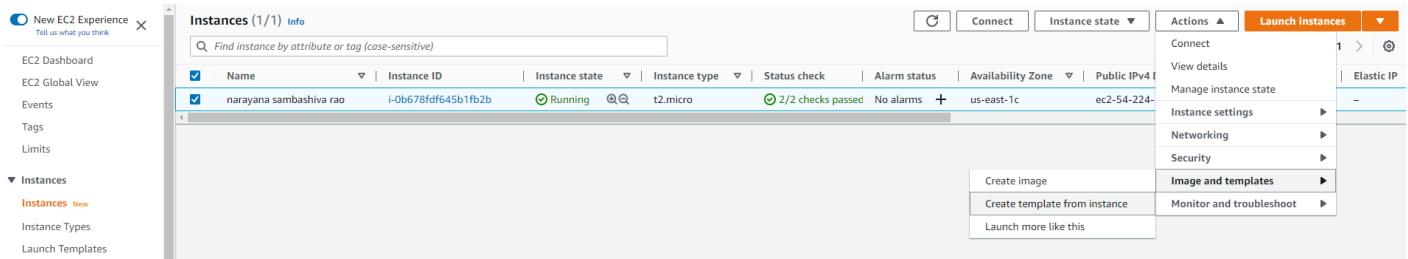
You can add 50 more tags.

Snapshots of both instance Type and volume type.

Snapshots (1/2)												Actions 	Create snapshot
Owned by me 	Search									< 1 > 			
<input checked="" type="checkbox"/>	Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started	Progress					
<input checked="" type="checkbox"/>	snap-narayana-instance	snap-0b5d0a740c437cc4	30 GiB	-	Standard	 Completed	2022/11/20 00:27 GMT+5:...	 Available (100%)					
<input type="checkbox"/>	snap-narayana-volume	snap-0d6ff8f0f23bd5a35	110 GiB	Volume type snapshot	Standard	 Completed	2022/11/20 00:28 GMT+5:...	 Available (100%)					

AMI (Amazon Machine Images)

Creating Narayana Sambashiva Rao EC2 windows OS image



Create image [Info](#)

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID

[i-0b678fdf645b1fb2b](#) (narayana sambashiva rao)

Image name

IMG-SAMBASHIVARAO-EC2

Maximum 127 characters. Can't be modified after creation.

Image description - optional

Sambashivarao EC2 image

Maximum 255 characters

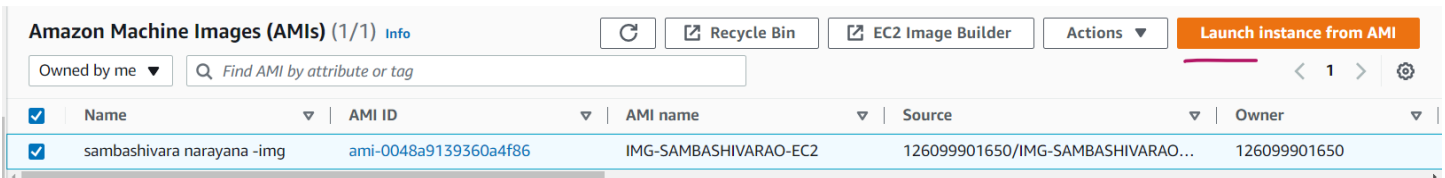
No reboot

Enable

Instance volumes

Volume type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/...	Create new snapshot fr...	30	EBS General Purpose S...	100		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable
EBS	xvdf	Create new snapshot fr...	25	EBS General Purpose S...	330		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

Launch instance from newly create AMI



Name

IMG-Launched-EC2

[Add additional tags](#)

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

AMI from catalog

Recents

My AMIs

Quick Start

Amazon Machine Image (AMI)

IMG-SAMBASHIVARAO-EC2
ami-0048a9139360a4f86



[Browse more AMIs](#)

Including AMIs from AWS, Marketplace and the Community

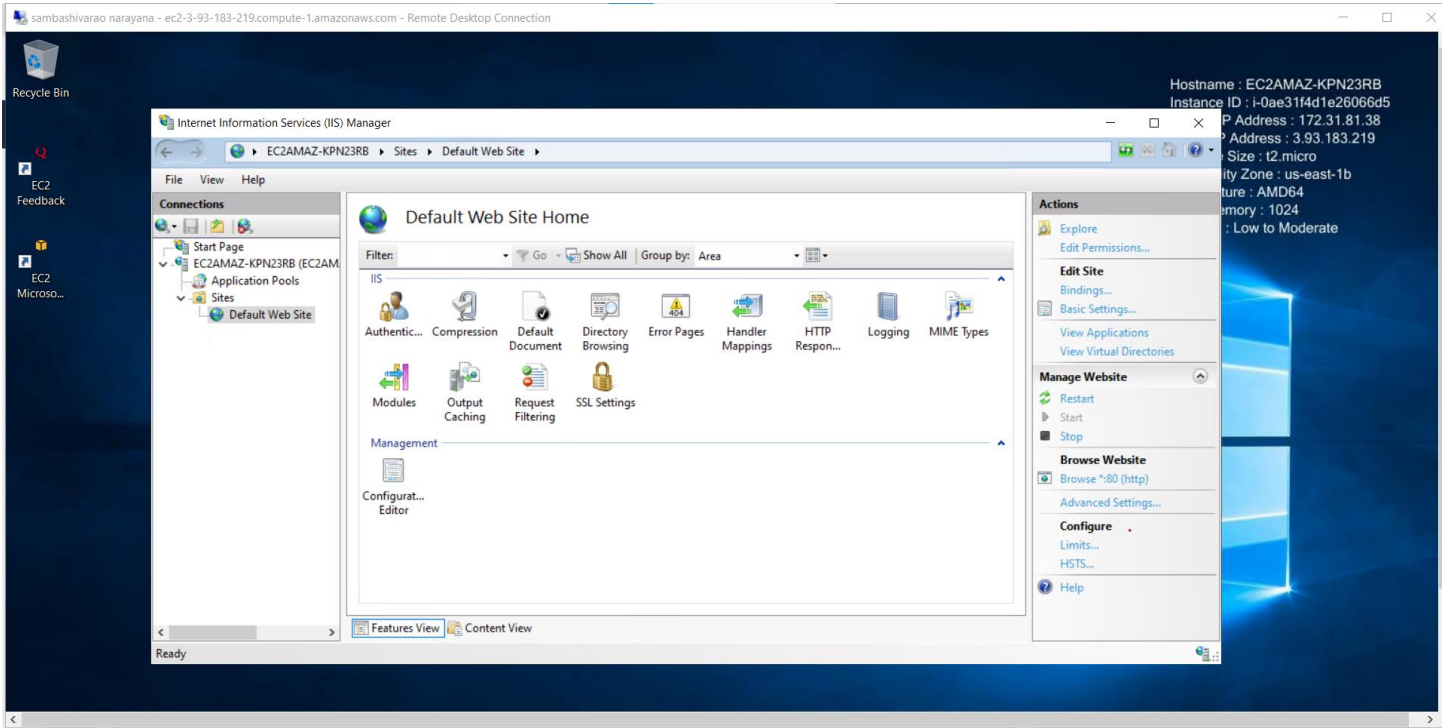
Published	Architecture	Virtualization	Root device type	ENA Enabled
2022-11-19T19:13:45.000Z	x86_64	hvm	ebs	Yes

Included instance created by Image

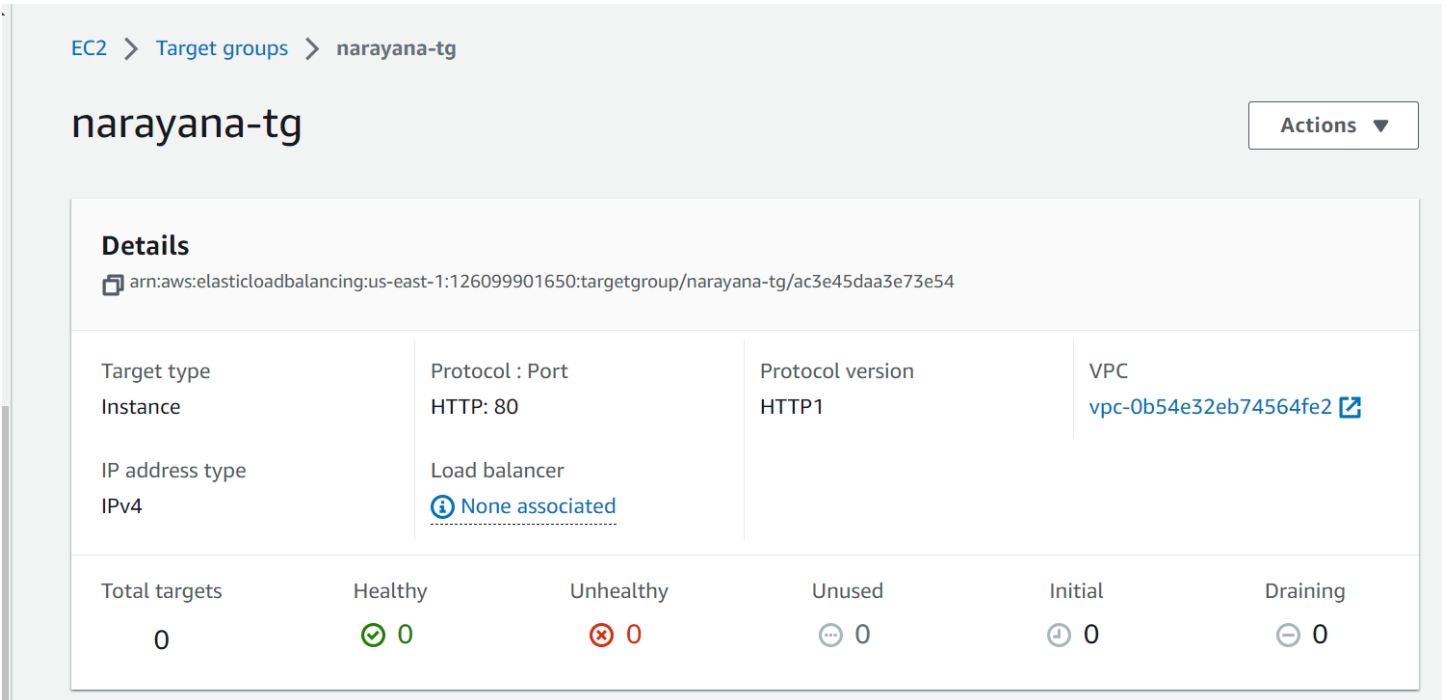
Instances (2) Info			Connect	Instance state ▼	Actions ▼	Launch instances	▼	
<input type="text" value="Find instance by attribute or tag (case-sensitive)"/>		< 1 >						
<input type="checkbox"/>	Name ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status	Availability Zone ▼	Publ
<input type="checkbox"/>	narayana sambashiva rao	i-0b678fdf645b1fb2b	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1c	ec2-5
<input type="checkbox"/>	IMG-Launched-EC2	i-04c8020f00beb5f21	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1b	ec2-4

Load Balancer:

Create & launch EC2 instance with IIS:



Create a target group and select the instance:



Create application load balancer by targeting to the previously created targeted group:

▼ Listener HTTP:80 Remove

Protocol: HTTP Port: 80 (1-65535) Default action: Forward to narayana-tg (Target type: Instance, IPv4) HTTP Info Refresh

[Create target group](#)

Listener tags - optional
Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add listener tag
You can add up to 50 more tags.

Add listener

EC2 > Load balancers

Load balancer (1)
Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Refresh Actions Create load balancer

Filter by property or value < 1 > Settings

search: sambashivarao-alb Clear filters

Name	DNS name	State	VPC ID	Availability Zones	Type
sambashivarao-alb	sambashivarao-alb-9478334.us-east-1.elb.amazonaws.com	Provisioning	vpc-0b54e32eb74564fe2	3 Availability Zones	application

Load the website from application load balancer

Browser address bar: <http://sambashivarao-alb-9478334.us-east-1.elb.amazonaws.com/>

Sambashiva Rao narayana EC2 instance with IIS enabled & site launched

VPC with 2 public subnets & 2 private subnet having Internet gateway and NAT gateway

Create Custom VPC:

Your VPCs (2) [Info](#) Refresh Actions Create VPC

Filter VPCs

<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	sambashivarao-vpc-01	vpc-080bc29b34696a1ca	Available	10.0.0.0/16	-
<input type="checkbox"/>	-	vpc-0b54e32eb74564fe2	Available	172.31.0.0/16	-

Create two public subnets & private subnets

Subnets (4) [Info](#) Refresh Actions Create subnet

Filter subnets

search: snarayana Clear filters

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	snarayana-private-1A	subnet-07a986dee651850f5	Available	vpc-080bc29b34696a1ca sa...	10.0.3.0/24	-
<input type="checkbox"/>	snarayana-private-1B	subnet-051cf72376b8b18bd	Available	vpc-080bc29b34696a1ca sa...	10.0.4.0/24	-
<input type="checkbox"/>	snarayana-public-1A	subnet-039b5169a328608fc	Available	vpc-080bc29b34696a1ca sa...	10.0.1.0/24	-
<input type="checkbox"/>	snarayana-public-1B	subnet-0f91320670e171f54	Available	vpc-080bc29b34696a1ca sa...	10.0.2.0/24	-

Associate Route tables to sub nets

Route tables (3) [Info](#) Refresh Actions Create route table

Filter route tables

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC
<input type="checkbox"/>	snarayana-pvt-rt	rtb-01c7b1e6fa097cf5c	2 subnets	-	No	vpc-080bc29b34696a1ca sa...
<input type="checkbox"/>	Main	rtb-01b6da02d5c7c5e52	2 subnets	-	Yes	vpc-080bc29b34696a1ca sa...

Create Internet Gate Way:

igw-04265653873c0417d / sambashivarao-igw Actions ▾

Details [Info](#)

Internet gateway ID igw-04265653873c0417d	State Attached	VPC ID vpc-080bc29b34696a1ca sambashivarao-vpc-01	Owner 126099901650
--	-------------------	--	-----------------------

Tags Manage tags

Search tags

Key	Value
Name	sambashivarao-igw

Attach Internet Gate way to Main Route table

Routes | Subnet associations | Edge associations | Route propagation | Tags

Routes (2) Edit routes

Filter routes Both ▾ < 1 > ⚙

Destination ▾	Target ▾	Status ▾	Propagated ▾
0.0.0.0/0	igw-04265653873c0417d	Active	No
10.0.0.0/16	local	Active	No

Create NAT Gate Way:

✔ NAT gateway nat-0b0d536590a4b4f21 | sambashivarao-nat-gw was created successfully.

VPC > NAT gateways > nat-0b0d536590a4b4f21

nat-0b0d536590a4b4f21 / sambashivarao-nat-gw Delete

Details [Info](#)

NAT gateway ID nat-0b0d536590a4b4f21	Connectivity type Public	State Pending	State message Info -
NAT gateway ARN arn:aws:ec2:us-east-1:126099901650:natgateway/nat-0b0d536590a4b4f21	Elastic IP address -	Primary private IPv4 address -	Network interface ID -
VPC vpc-080bc29b34696a1ca /	Subnet subnet-039b5169a328608fc / snarayana-public-1A	Created Monday, November 28, 2022 at 21:47:51 GMT+5:30	Deleted -

Assign private route table to NAT gate way:

Routes | Subnet associations | Edge associations | Route propagation | Tags

Routes (2) Edit routes

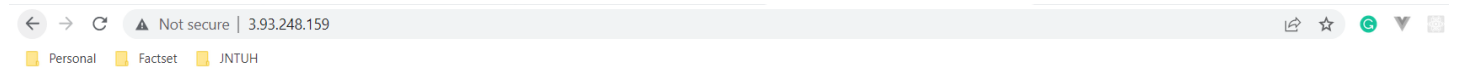
Filter routes Both < 1 > ⚙️

Destination	Target	Status	Propagated
0.0.0.0/0	nat-0b0d536590a4b4f21	Active	No
10.0.0.0/16	local	Active	No

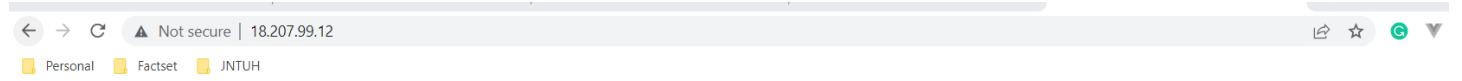
Create EC2 instances with Public and private subnets

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alar
<input type="checkbox"/>	sambashiva-public1b-ec2	i-0c4ca38bbf808631e	Running	t2.micro	2/2 checks passed	No a
<input type="checkbox"/>	sambashiva-public1a-ec2	i-0cb4061aceb3e31bf	Running	t2.micro	2/2 checks passed	No a
<input type="checkbox"/>	sambashiva-private1a-ec2	i-0b9ec7af30f02c2cd	Running	t2.micro	2/2 checks passed	No a

Browse Ec2 information:



This instance is in the subnet with ID: subnet-0f91320670e171f54



This instance is in the subnet with ID: subnet-039b5169a328608fc