

## Practice Assignment

Q) Create an ec2 instance with the ubuntu operating system, set all the required parameters such as security groups and key pair, and also do SSH with git bash to the running instance.

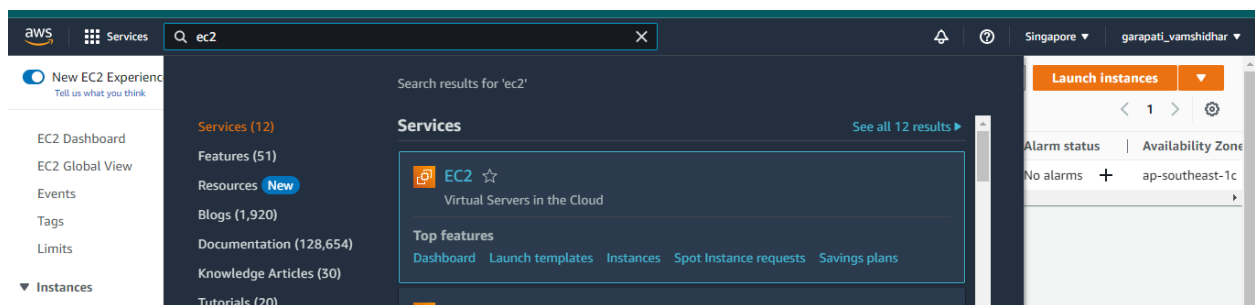
Also, install NodeJS on top of the instance and check for the version of node to cross-check if NodeJS is installed successfully.

Also, configure the instance with an elastic ip to show the static public ip address.

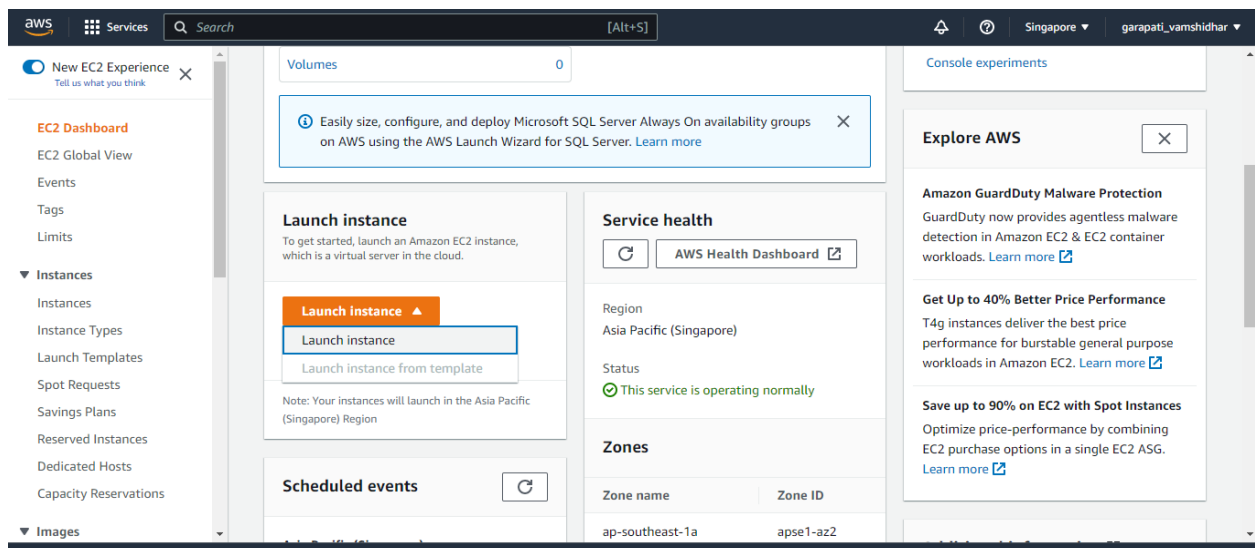
Also, create an S3 bucket and upload an object to it and show the object URL for reference.

Ans)

1. Go to services and select EC2.



2. Now click on launch instance.



### 3.Name the instance and select the **Ubuntu AMI**.

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EC2 > Instances > Launch an instance

## Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### 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

### ▼ Summary

Number of instances [Info](#)

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)  
ami-03f6a11788f8e319e

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#)

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### ▼ 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

#### Quick Start

Amazon Linux

macOS

**Ubuntu**

Windows

Red Hat

[Browse more AMIs](#)  
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type  
ami-082b1f4237bd816a1 (64-bit (x86)) / ami-020e93f073d2d377e (64-bit (Arm))  
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-02-08

### ▼ Summary

Number of instances [Info](#)

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...[read more](#)  
ami-082b1f4237bd816a1

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#)

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4. Select the instance type **t2.micro** as it is a free tier.

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Description  
Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-02-08

Architecture 64-bit (x86) AMI ID ami-082b1f4237bd816a1 Verified provider

▼ Instance type Info

Instance type  
t2.micro Free tier eligible  
Family: t2 1 vCPU 1 GiB Memory  
On-Demand Windows pricing: 0.0192 USD per Hour  
On-Demand RHEL pricing: 0.0746 USD per Hour  
On-Demand Linux pricing: 0.0146 USD per Hour  
On-Demand SUSE pricing: 0.0146 USD per Hour  
Compare instance types

▼ 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

▼ Summary

Number of instances Info  
1

Software Image (AMI)  
Canonical, Ubuntu, 22.04 LTS, ...read more  
ami-082b1f4237bd816a1

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

Cancel Launch instance

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5. Select the **key pair** if exists or else create a new key pair. Now select **VPC, subnets** and also **security groups**.

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▼ 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  
NEWKEY Create new key pair

▼ Network settings Info

VPC - required Info  
vpc-091c9bc478b733809 (default) Create new VPC

Subnet Info  
subnet-0d8b6ee3256797421  
VPC: vpc-091c9bc478b733809 Owner: 753281509398  
Availability Zone: ap-southeast-1c IP addresses available: 4091 CIDR: 172.31.0.0/20  
Create new subnet

Auto-assign public IP Info  
Enable

Firewall (security groups) Info

▼ Summary

Number of instances Info  
1

Software Image (AMI)  
Canonical, Ubuntu, 22.04 LTS, ...read more  
ami-082b1f4237bd816a1

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

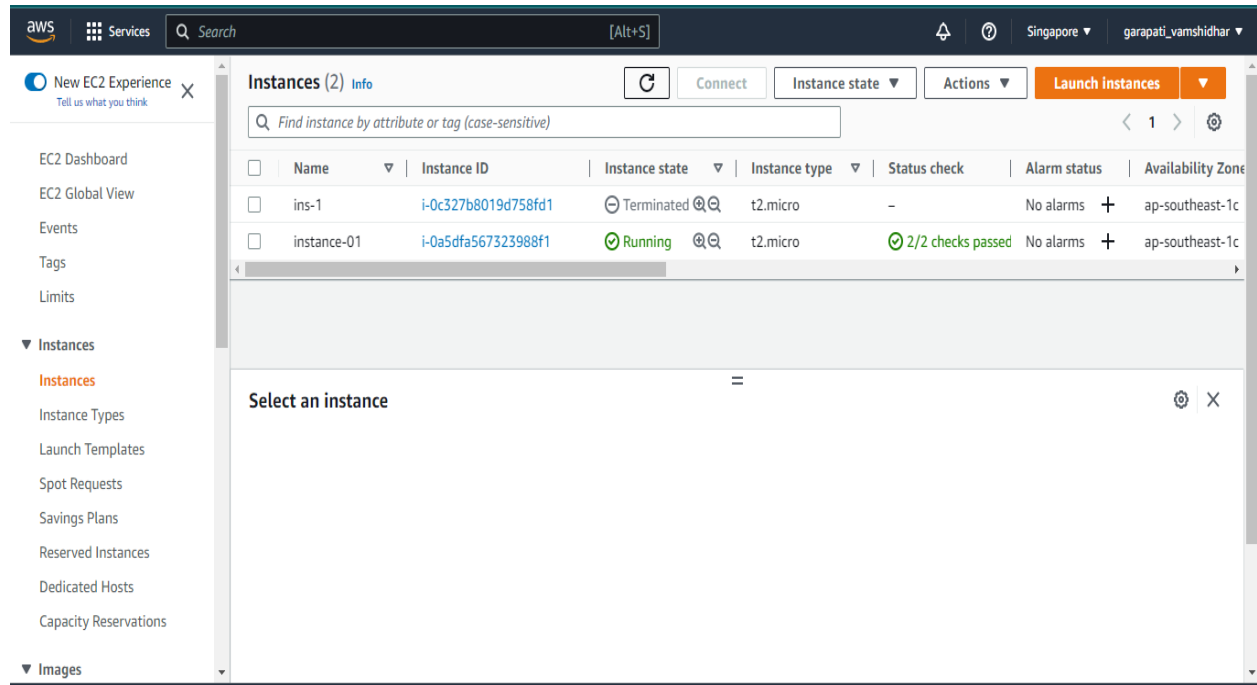
Cancel Launch instance

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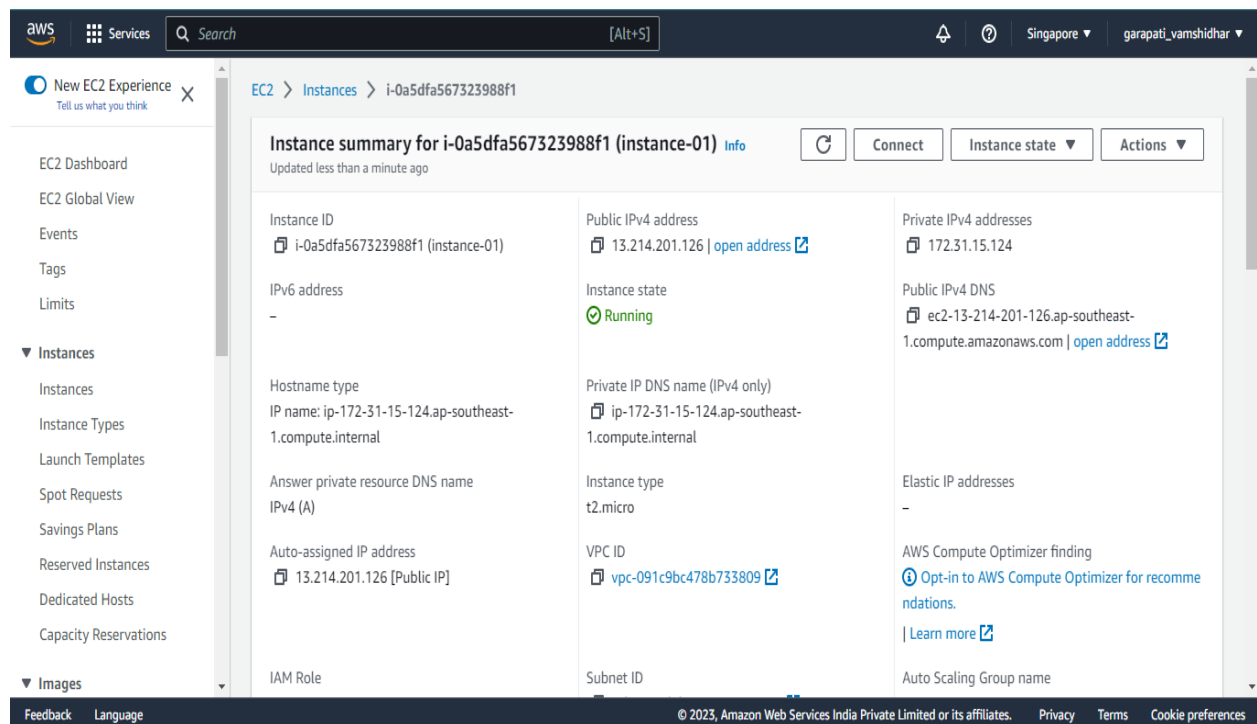
6. Select the required storage and click on **launch instance**.

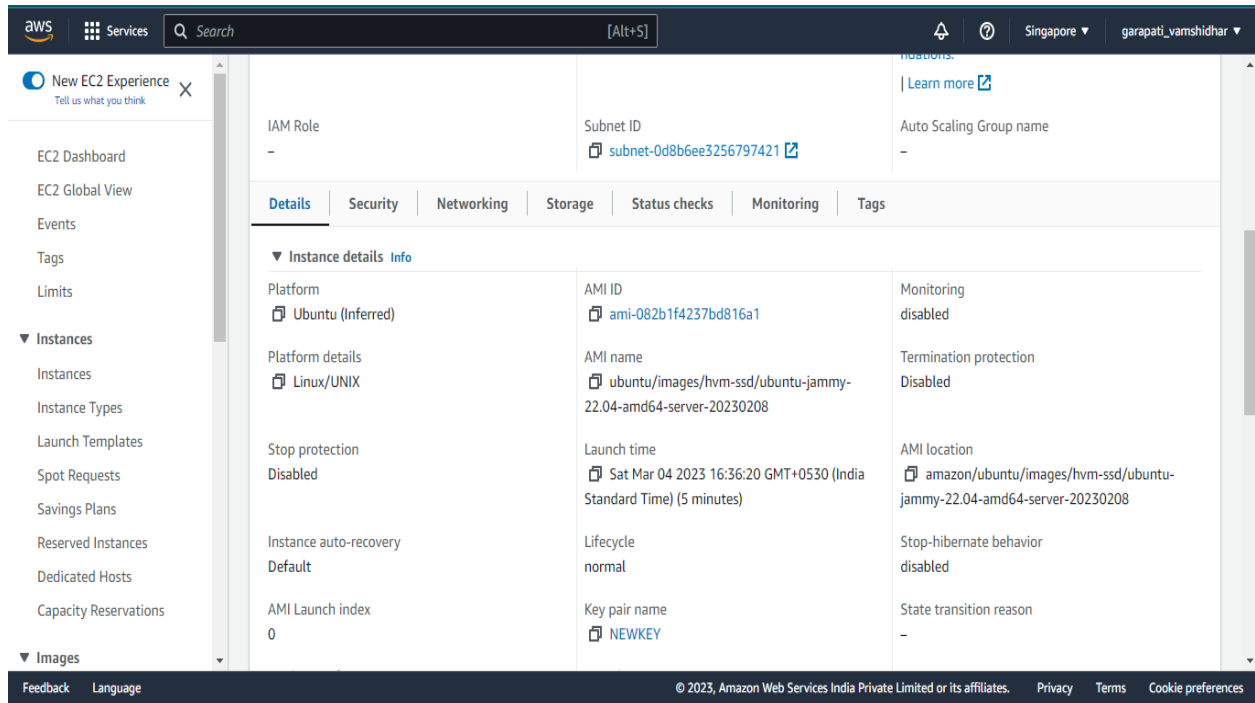
\*The **launch log** will be as shown below.

\*We can the instance that are running.

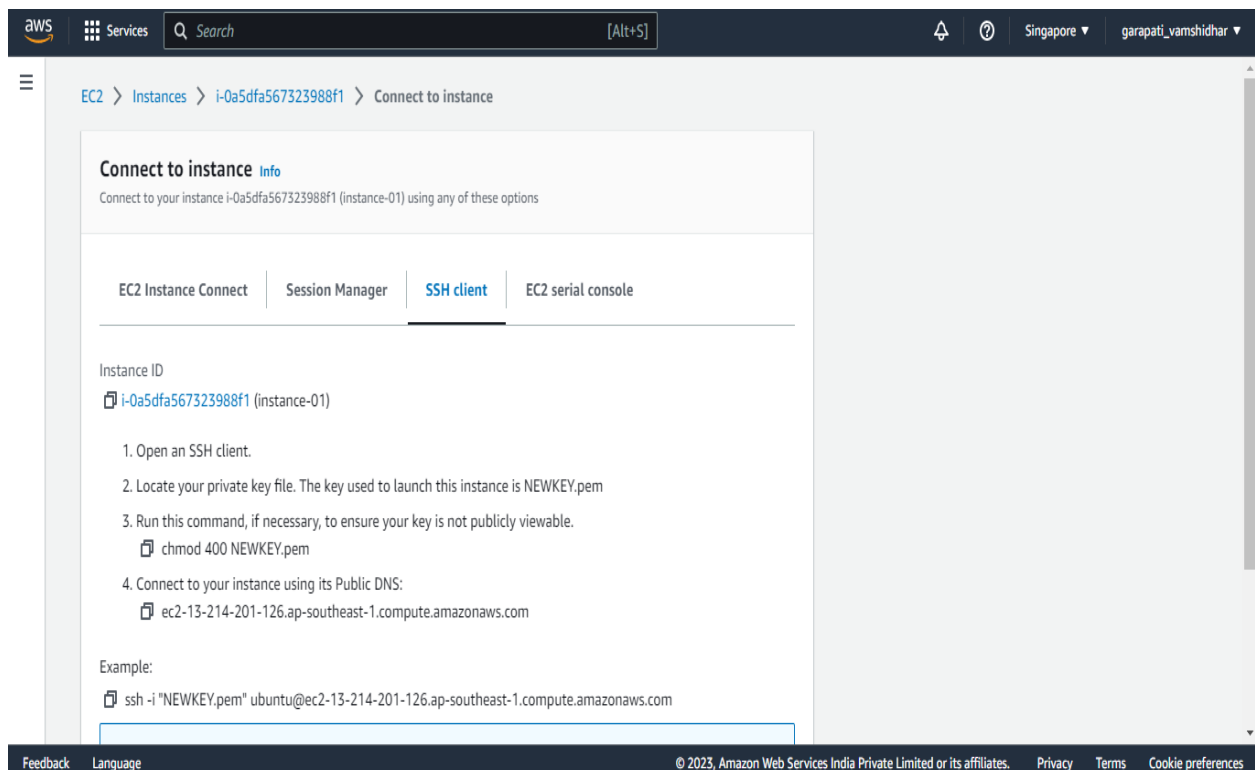


\*The below screenshot is the **summary of the instance**.





7. Now click on connect and select **SSH client** and copy the command which is displayed in the example.



8.Go to git bash and change the directory where the pem file is created. And now paste the command and click enter. Now the instance is launched.

```
ubuntu@ip-172-31-15-124: ~  
vamsi@DESKTOP-433CL41 MINGW64 ~ (main)  
$ cd downloads  
vamsi@DESKTOP-433CL41 MINGW64 ~/downloads (main)  
$ ssh -i "NEWKEY.pem" ubuntu@ec2-13-214-201-126.ap-southeast-1.compute.amazonaws.com  
The authenticity of host 'ec2-13-214-201-126.ap-southeast-1.compute.amazonaws.com (13.214.201.126)' can't be established.  
ED25519 key fingerprint is SHA256:acIXuvY2DbckbdrEUTqIgggA6lNmDQyKtd2/wLVHYw.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added 'ec2-13-214-201-126.ap-southeast-1.compute.amazonaws.com' (ED25519) to the list of known hosts.  
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1028-aws x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:        https://ubuntu.com/advantage  
  
System information as of Sat Mar  4 11:12:33 UTC 2023  
  
System load:  0.0      Processes:      94  
Usage of /:   19.8% of 7.57GB   Users logged in:  0  
Memory usage: 19%      IPv4 address for eth0: 172.31.15.124  
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  
  
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-172-31-15-124:~$
```

9.To update use the command “\$sudo apt update” .

```
ubuntu@ip-172-31-15-124: ~  
ubuntu@ip-172-31-15-124:~$ sudo apt update  
Hit:1 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease  
Get:2 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]  
Get:3 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]  
Get:4 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]  
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]  
Get:6 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]  
Get:7 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]  
Get:8 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]  
Get:9 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]  
Get:10 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]  
Get:11 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [939 kB]  
Get:12 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [203 kB]  
Get:13 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [13.6 kB]  
Get:14 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [680 kB]  
Get:15 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [106 kB]  
Get:16 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]  
Get:17 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [877 kB]  
Get:18 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [172 kB]  
Get:19 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [17.9 kB]  
Get:20 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [9696 B]  
Get:21 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [3260 B]  
Get:22 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [444 B]  
Get:23 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.7 kB]  
Get:24 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [9800 B]  
Get:25 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 B]  
Get:26 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]  
Get:27 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [19.5 kB]  
Get:28 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [14.0 kB]  
Get:29 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [392 B]  
Get:30 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]  
Get:31 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [680 kB]  
Get:32 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [139 kB]  
Get:33 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [8528 B]  
Get:34 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [637 kB]  
Get:35 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [99.7 kB]  
Get:36 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [696 kB]  
Get:37 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [111 kB]  
Get:38 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [13.5 kB]  
Get:39 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4960 B]  
Get:40 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [996 B]  
Get:41 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [240 B]  
Fetched 26.2 MB in 5s (5742 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
38 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@ip-172-31-15-124:~$
```

10.To install the nodejs use the command “**\$sudo apt install nodejs**”.

```
ubuntu@ip-172-31-15-124: ~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  javascript-common libc-ares2 libjs-highlight.js libnode72 nodejs-doc
Suggested packages:
  apache2 | lighttpd | httpd npm
The following NEW packages will be installed:
  javascript-common libc-ares2 libjs-highlight.js libnode72 nodejs nodejs-doc
0 upgraded, 6 newly installed, 0 to remove and 38 not upgraded.
Need to get 13.7 MB of archives.
After this operation, 53.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 javascript-common all 11+nmul [5936 B]
Get:2 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 libjs-highlight.js all 9.18.5+dfsg1-1 [367 kB]
Get:3 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libc-ares2 amd64 1.18.1-1ubuntu0.22.04.1 [45.1 kB]
Get:4 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 libnode72 amd64 12.22.9-dfsg-1ubuntu3 [10.8 MB]
Get:5 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs-doc all 12.22.9-dfsg-1ubuntu3 [2409 kB]
Get:6 http://ap-southeast-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs amd64 12.22.9-dfsg-1ubuntu3 [122 kB]
Fetched 13.7 MB in 0s (44.5 MB/s)
Selecting previously unselected package javascript-common.
(Reading database ... 63605 files and directories currently installed.)
Preparing to unpack .../0-javascript-common_11+nmul_all.deb ...
Unpacking javascript-common (11+nmul) ...
Selecting previously unselected package libjs-highlight.js.
Preparing to unpack .../1-libjs-highlight.js_9.18.5+dfsg1-1_all.deb ...
Unpacking libjs-highlight.js (9.18.5+dfsg1-1) ...
Selecting previously unselected package libc-ares2:amd64.
Preparing to unpack .../2-libc-ares2_1.18.1-1ubuntu0.22.04.1_amd64.deb ...
Unpacking libc-ares2:amd64 (1.18.1-1ubuntu0.22.04.1) ...
Selecting previously unselected package libnode72:amd64.
Preparing to unpack .../3-libnode72_12.22.9-dfsg-1ubuntu3_amd64.deb ...
Unpacking libnode72:amd64 (12.22.9-dfsg-1ubuntu3) ...
Selecting previously unselected package nodejs-doc.
Preparing to unpack .../4-nodejs-doc_12.22.9-dfsg-1ubuntu3_all.deb ...
Unpacking nodejs-doc (12.22.9-dfsg-1ubuntu3) ...
Selecting previously unselected package nodejs.
Preparing to unpack .../5-nodejs_12.22.9-dfsg-1ubuntu3_amd64.deb ...
Unpacking nodejs (12.22.9-dfsg-1ubuntu3) ...
Setting up javascript-common (11+nmul) ...
Setting up libc-ares2:amd64 (1.18.1-1ubuntu0.22.04.1) ...
Setting up libnode72:amd64 (12.22.9-dfsg-1ubuntu3) ...
Setting up libjs-highlight.js (9.18.5+dfsg1-1) ...
Setting up nodejs (12.22.9-dfsg-1ubuntu3) ...
update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode
Setting up nodejs-doc (12.22.9-dfsg-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...

Setting up javascript-common (11+nmul) ...
Setting up libjs-highlight.js (9.18.5+dfsg1-1) ...
Setting up nodejs (12.22.9-dfsg-1ubuntu3) ...
update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode
Setting up nodejs-doc (12.22.9-dfsg-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-15-124:~$
```

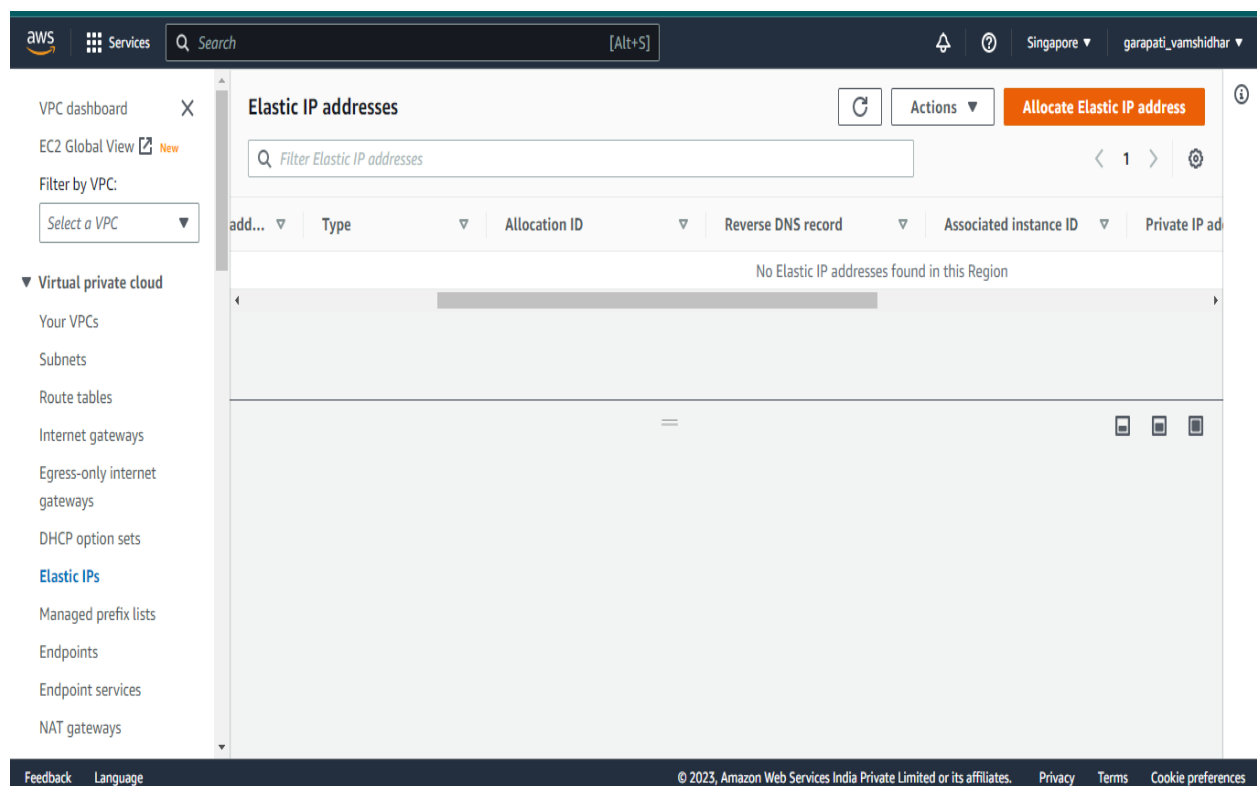
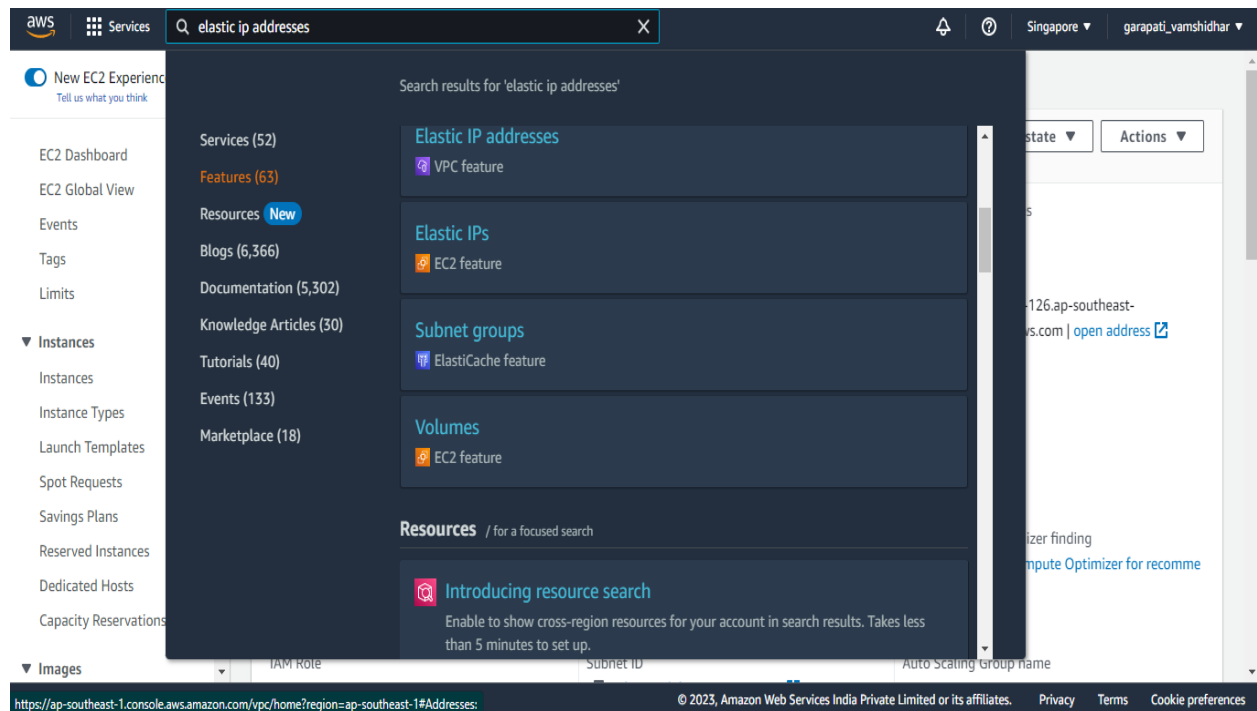
11.Now check whether the node.js is installed or not. Use the command “**\$node -v**” or “**\$node --version**”.

```
ubuntu@ip-172-31-15-124:~$ node -v
v12.22.9
ubuntu@ip-172-31-15-124:~$ |
```

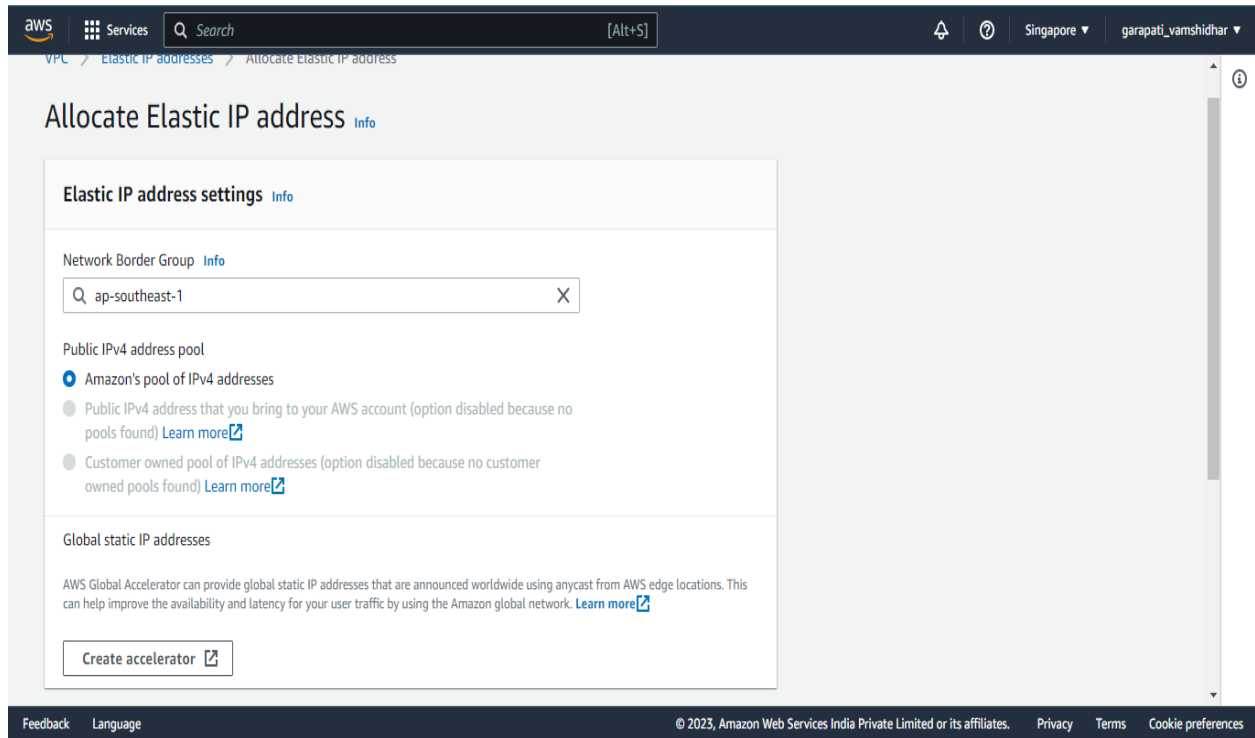


## Configuring elastic ip address:

1.select the elastic Ip addresses and click on **allocate elastic Ip address**.



2. Add the **tags** to the elastic ip and click allocate.



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VPC / Elastic IP addresses / Allocate Elastic IP address

## Allocate Elastic IP address [Info](#)

### Elastic IP address settings [Info](#)

Network Border Group [Info](#)

ap-southeast-1 X

Public IPv4 address pool

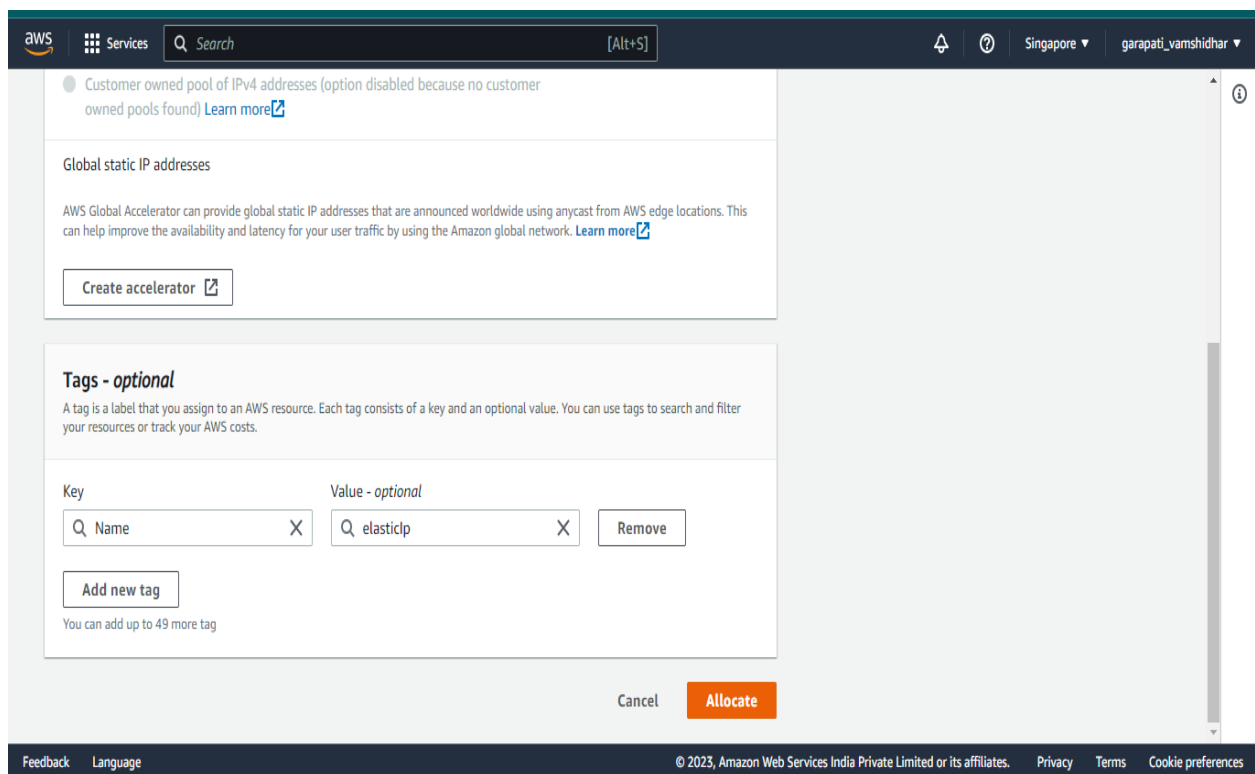
- ☒ Amazon's pool of IPv4 addresses
- ☐ Public IPv4 address that you bring to your AWS account (option disabled because no pools found) [Learn more](#)
- ☐ Customer owned pool of IPv4 addresses (option disabled because no customer owned pools found) [Learn more](#)

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability and latency for your user traffic by using the Amazon global network. [Learn more](#)

Create accelerator

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- ☐ Customer owned pool of IPv4 addresses (option disabled because no customer owned pools found) [Learn more](#)

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability and latency for your user traffic by using the Amazon global network. [Learn more](#)

Create accelerator

### Tags - optional

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.

| Key    | Value - optional |        |
|--------|------------------|--------|
| Name X | elasticip X      | Remove |

Add new tag

You can add up to 49 more tag

Cancel Allocate

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3.Now click on **associate this elastic ip address** and select the instance.

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VPC dashboard X

EC2 Global View New

Filter by VPC:

Select a VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Elastic IP address allocated successfully.  
Elastic IP address 18.141.74.230 / elasticip

Associate this Elastic IP address X

Elastic IP addresses (1/1)

Filter Elastic IP addresses

Public IPv4 address: 18.141.74.230 X Clear filters

| <input checked="" type="checkbox"/> | Name      | Allocated IPv4 add... | Type      | Allocation ID              | Reverse DN |
|-------------------------------------|-----------|-----------------------|-----------|----------------------------|------------|
| <input checked="" type="checkbox"/> | elasticip | 18.141.74.230         | Public IP | eipalloc-0198df8b7ed0e4460 | -          |

18.141.74.230

Summary Tags

Summary

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VPC > Elastic IP addresses > Associate Elastic IP address

## Associate Elastic IP address

Choose the instance or network interface to associate to this Elastic IP address (18.141.74.230)

Elastic IP address: 18.141.74.230

Resource type

Choose the type of resource with which to associate the Elastic IP address.

☒ Instance

☐ Network interface

**⚠** If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)

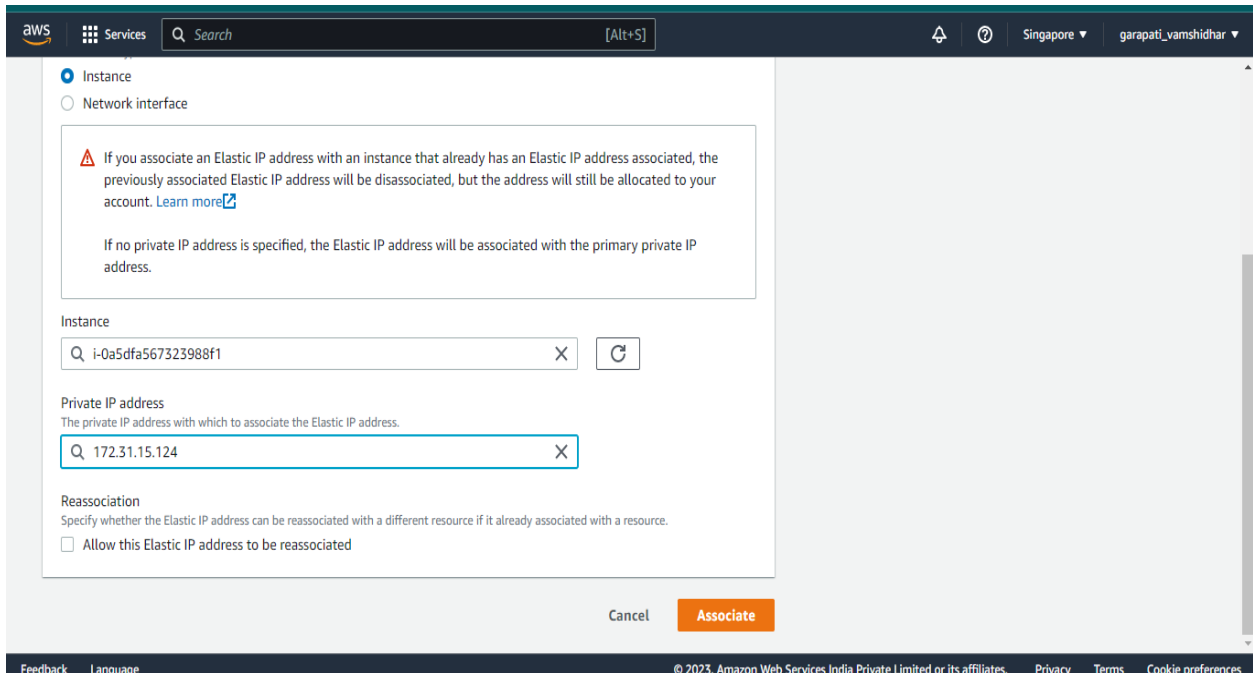
If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance

i-0a5dfa567323988f1 X

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#### 4. Give the **private Ip address**.



The screenshot shows the AWS console interface for associating an Elastic IP address with an instance. The 'Instance' tab is selected. A warning message states: 'If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)'. Below this, the 'Instance' field contains 'i-0a5dfa567323988f1'. The 'Private IP address' field, with a description 'The private IP address with which to associate the Elastic IP address.', contains '172.31.15.124'. The 'Reassociation' section has a checkbox 'Allow this Elastic IP address to be reassocated' which is currently unchecked. At the bottom right are 'Cancel' and 'Associate' buttons.

Instance

Network interface

**Warning:** If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)

If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance

Private IP address

The private IP address with which to associate the Elastic IP address.

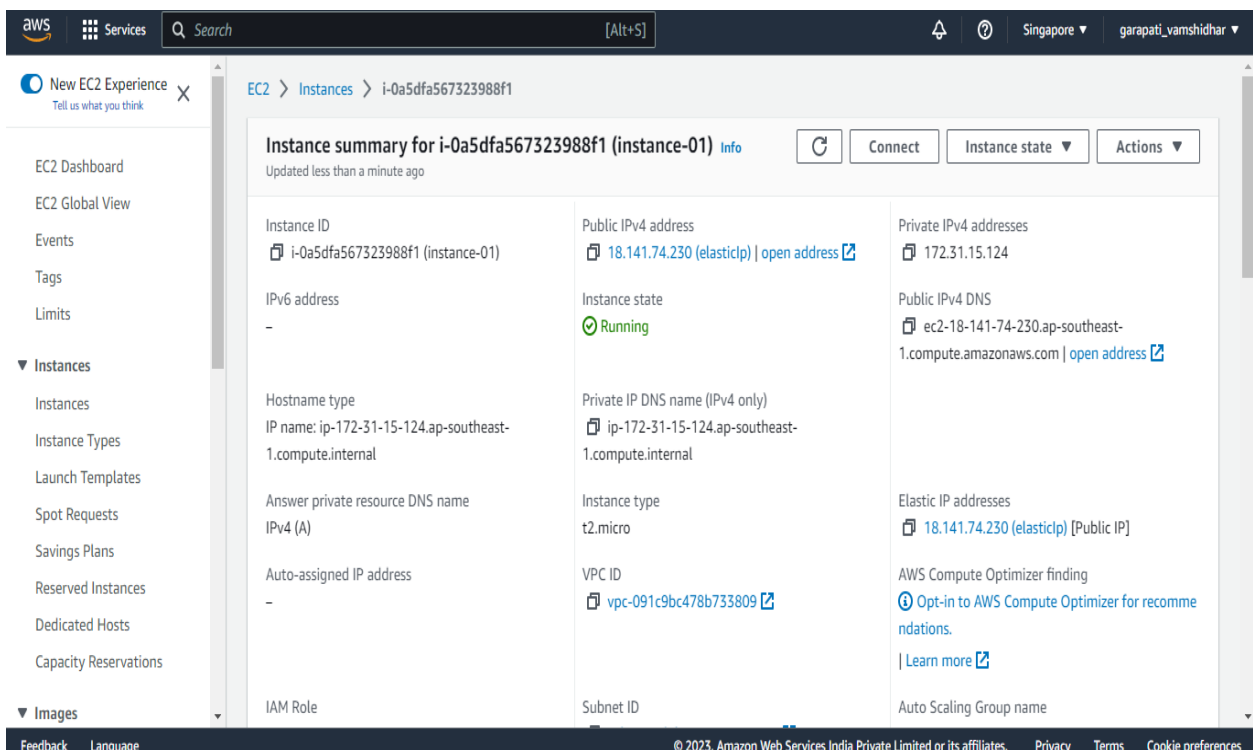
Reassociation

Specify whether the Elastic IP address can be reassocated with a different resource if it already associated with a resource.

☐ Allow this Elastic IP address to be reassocated

Cancel Associate

#### 5. Go to instance summary page. There we can find the **allocated elastic Ip address**.

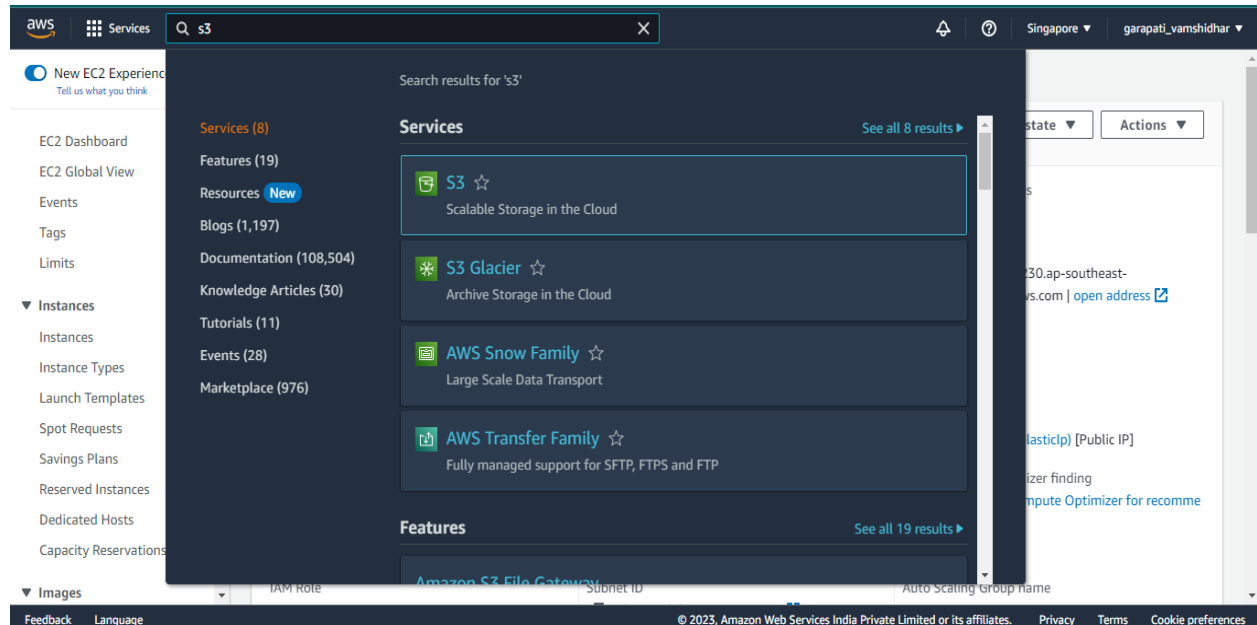


The screenshot shows the 'Instance summary' page for instance 'i-0a5dfa567323988f1 (instance-01)'. The instance is in a 'Running' state. The summary is organized into three columns. The first column lists instance details like ID, IP addresses, hostname, and IAM role. The second column shows the instance's state as 'Running' and provides DNS names for both public and private IP addresses. The third column lists the private IP address, public DNS, and elastic IP addresses, including the allocated elastic IP '18.141.74.230'. A note about AWS Compute Optimizer is also present.

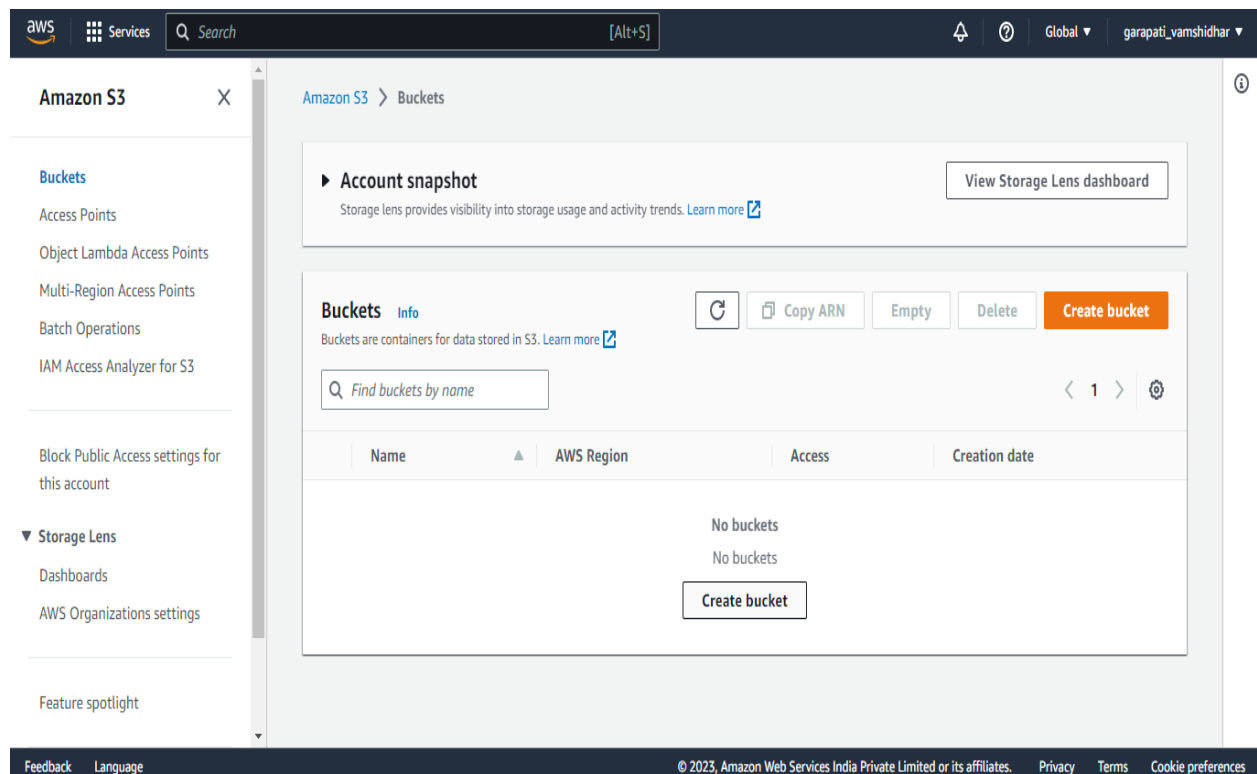
|   |   |  |
|---|---|--|
| Instance summary for i-0a5dfa567323988f1 (instance-01) <a href="#">Info</a> |   |  |
| Updated less than a minute ago  |   |  |
| Instance ID<br>i-0a5dfa567323988f1 (instance-01)                            | Public IPv4 address<br>18.141.74.230 (elasticip)   <a href="#">open address</a>     | Private IPv4 addresses<br>172.31.15.124  |
| IPv6 address<br>-   | Instance state<br>Running   | Public IPv4 DNS<br>ec2-18-141-74-230.ap-southeast-1.compute.amazonaws.com   <a href="#">open address</a>           |
| Hostname type<br>IP name: ip-172-31-15-124.ap-southeast-1.compute.internal  | Private IP DNS name (IPv4 only)<br>ip-172-31-15-124.ap-southeast-1.compute.internal | Elastic IP addresses<br>18.141.74.230 (elasticip) [Public IP]  |
| Answer private resource DNS name<br>IPv4 (A)                                | Instance type<br>t2.micro   | AWS Compute Optimizer finding<br>Opt-in to AWS Compute Optimizer for recommendations.   <a href="#">Learn more</a> |
| Auto-assigned IP address<br>-   | VPC ID<br>vpc-091c9bc478b733809   | Auto Scaling Group name  |
| IAM Role  | Subnet ID   |  |

# Create an S3 bucket and upload an object to it and show the object URL for reference.

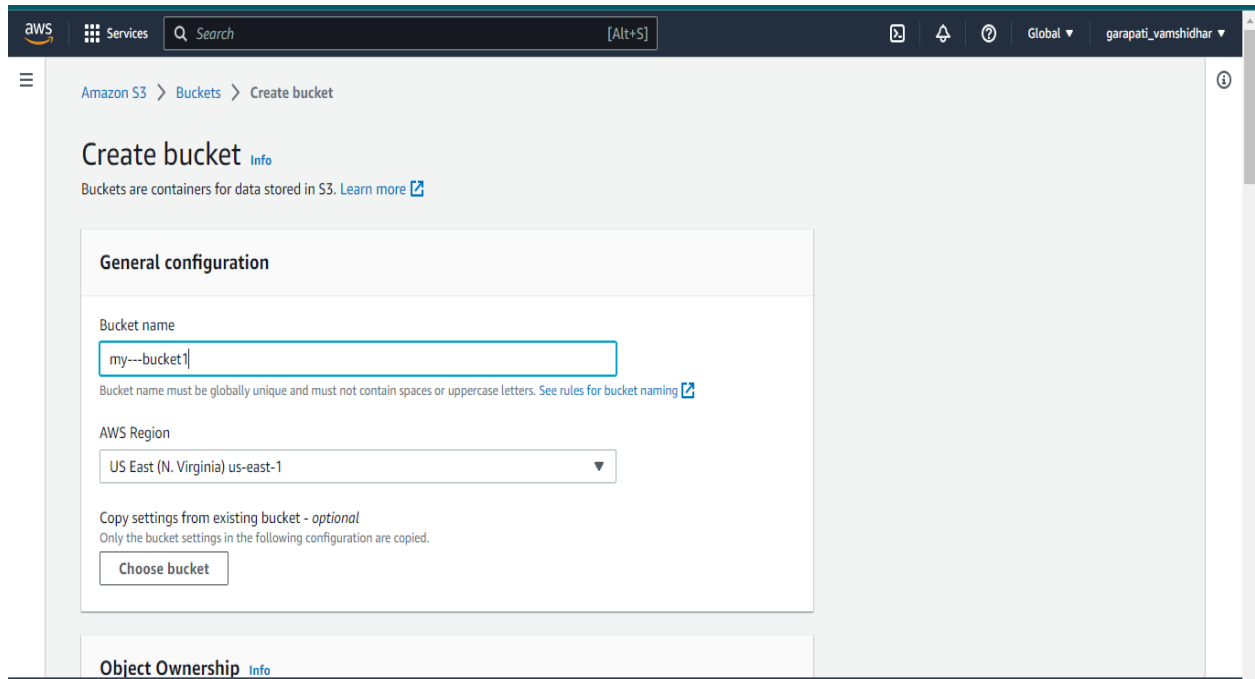
1.Go to services and select S3.



2.Click on **create bucket**.

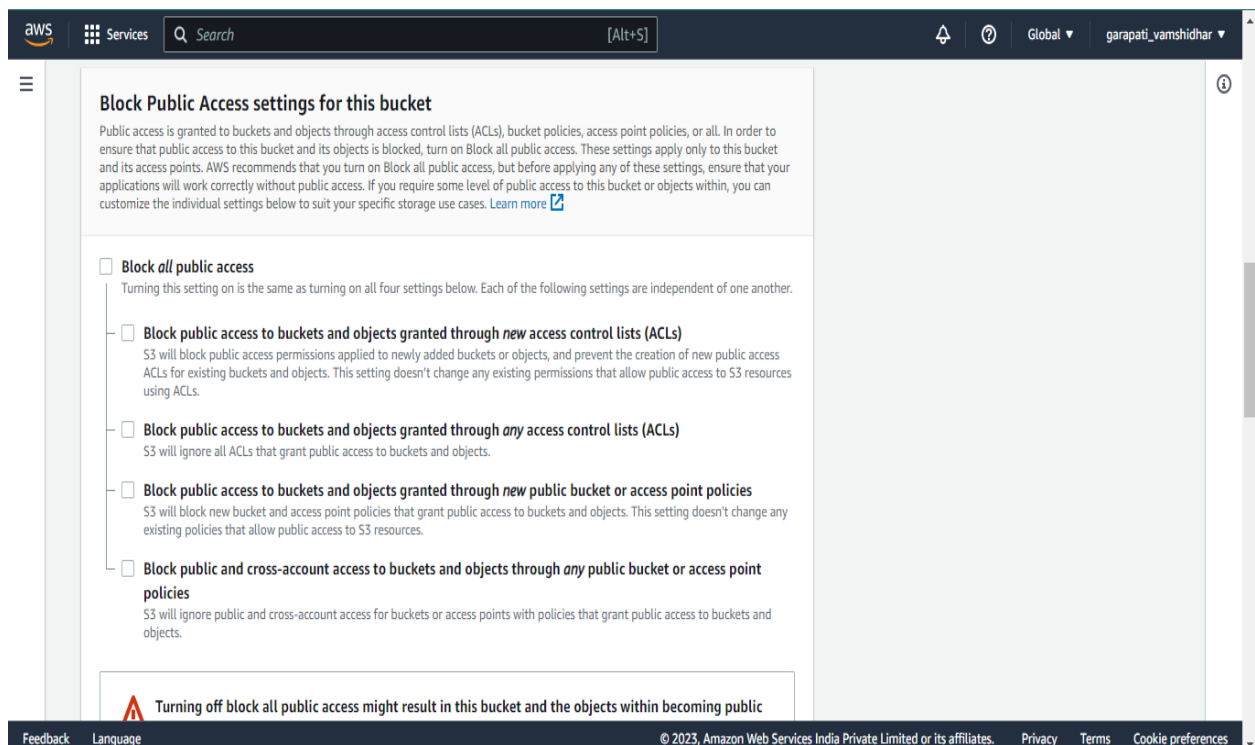


### 3. Give the name of the bucket and choose the region.



The screenshot shows the AWS 'Create bucket' page. The breadcrumb navigation is 'Amazon S3 > Buckets > Create bucket'. The main heading is 'Create bucket' with an 'Info' link. Below it, a sub-header reads 'Buckets are containers for data stored in S3. [Learn more](#)'. The 'General configuration' section contains a 'Bucket name' input field with the text 'my---bucket1', a note stating 'Bucket name must be globally unique and must not contain spaces or uppercase letters. See rules for bucket naming', an 'AWS Region' dropdown menu set to 'US East (N. Virginia) us-east-1', and a 'Copy settings from existing bucket - optional' section with a 'Choose bucket' button. Below this is the 'Object Ownership' section with an 'Info' link.

### 4. Now unmark “block all public access”.

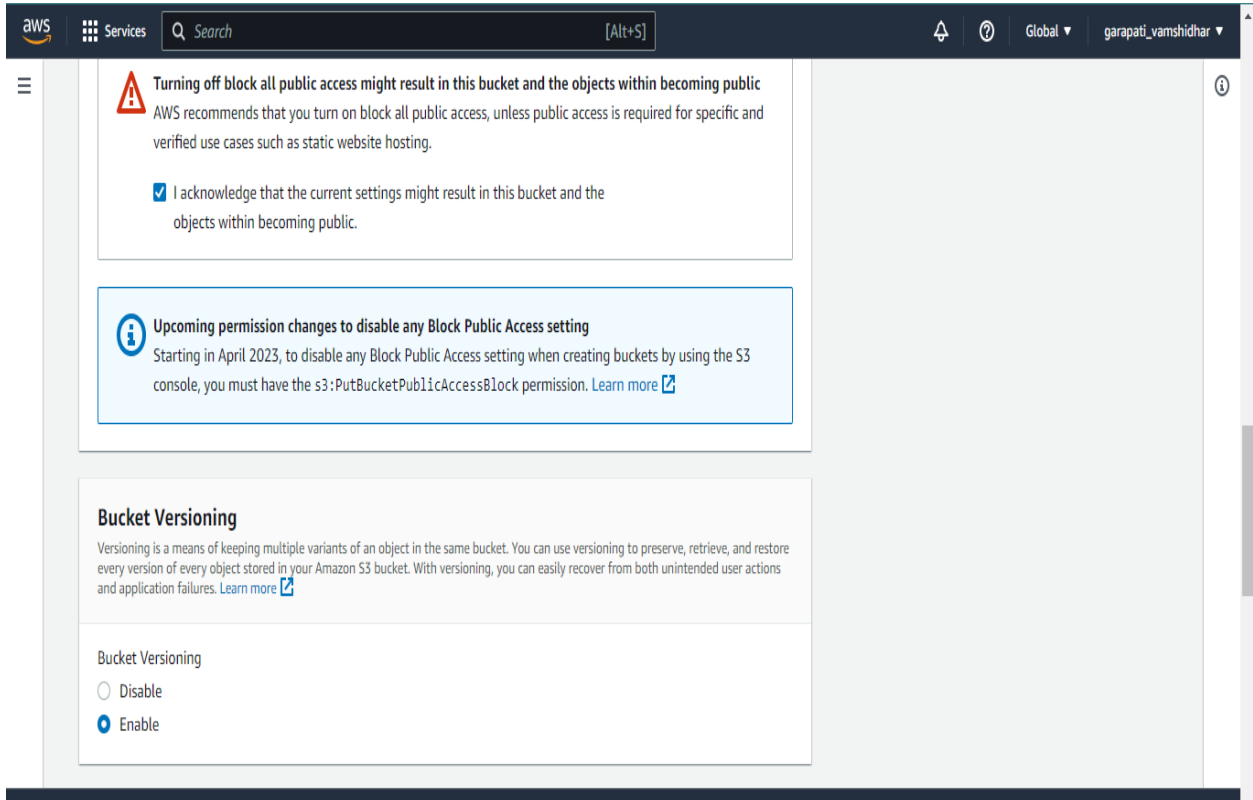


The screenshot shows the 'Block Public Access settings for this bucket' page. It includes a detailed explanation of public access and a list of settings to be unblocked. The settings are:

- ☐ **Block all public access**  
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
- ☐ **Block public access to buckets and objects granted through *new* access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- ☐ **Block public access to buckets and objects granted through *any* access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.
- ☐ **Block public access to buckets and objects granted through *new* public bucket or access point policies**  
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- ☐ **Block public and cross-account access to buckets and objects through *any* public bucket or access point policies**  
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

A warning message at the bottom states: 'Turning off block all public access might result in this bucket and the objects within becoming public'.

## 5.Enable the caution and also enable bucket versioning.



aws Services Search [Alt+S]

Turning off block all public access might result in this bucket and the objects within becoming public  
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

☒ I acknowledge that the current settings might result in this bucket and the objects within becoming public.

Upcoming permission changes to disable any Block Public Access setting  
Starting in April 2023, to disable any Block Public Access setting when creating buckets by using the S3 console, you must have the `s3:PutBucketPublicAccessBlock` permission. [Learn more](#)

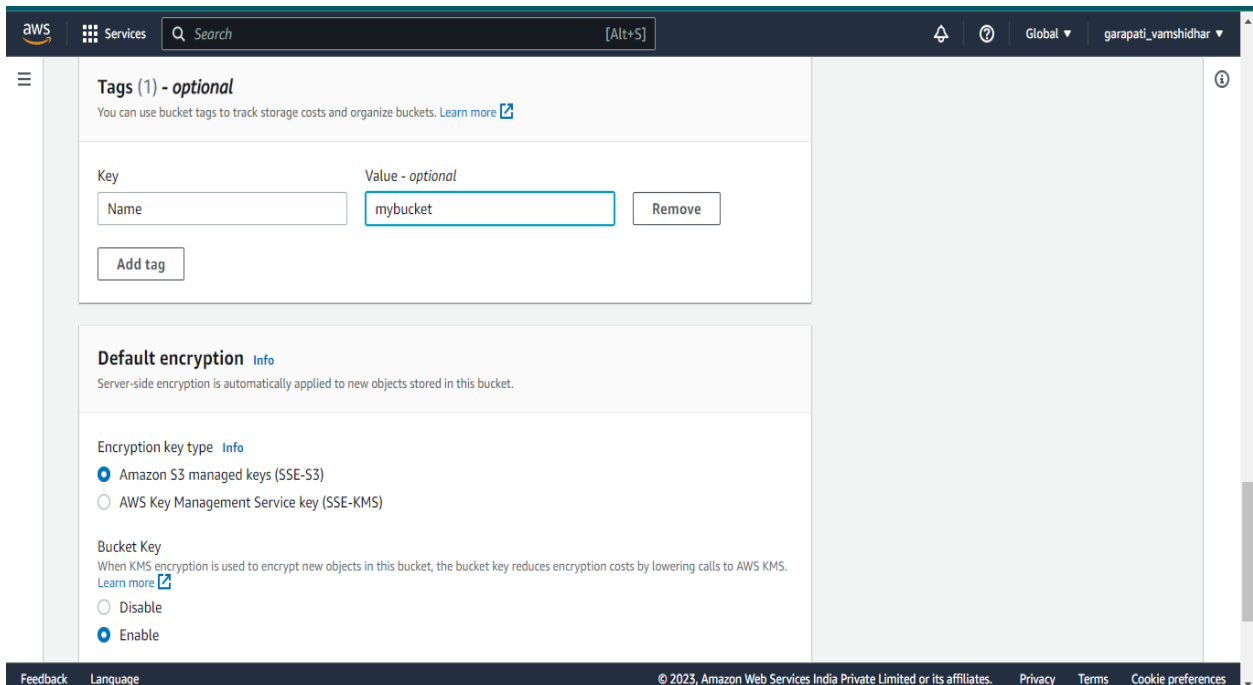
**Bucket Versioning**  
Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning

☐ Disable

☒ Enable

## 6.Add the tags and click on create bucket.



aws Services Search [Alt+S]

Tags (1) - optional  
You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

Key Value - optional

Name mybucket Remove

Add tag

**Default encryption** [Info](#)  
Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption key type [Info](#)

☒ Amazon S3 managed keys (SSE-S3)

☐ AWS Key Management Service key (SSE-KMS)

Bucket Key  
When KMS encryption is used to encrypt new objects in this bucket, the bucket key reduces encryption costs by lowering calls to AWS KMS. [Learn more](#)

☐ Disable

☒ Enable

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aws

Services

Search

[Alt+S]

Global

garapati\_vamshidhar

Default encryption

Info

Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption key type

Info

☒ Amazon S3 managed keys (SSE-S3)

☐ AWS Key Management Service key (SSE-KMS)

Bucket Key

When KMS encryption is used to encrypt new objects in this bucket, the bucket key reduces encryption costs by lowering calls to AWS KMS.

Learn more

☐ Disable

☒ Enable

Advanced settings

After creating the bucket you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel

Create bucket

aws

Services

Search

[Alt+S]

Global

garapati\_vamshidhar

Amazon S3

X

Buckets

Access Points

Object Lambda Access Points

Multi-Region Access Points

Batch Operations

IAM Access Analyzer for S3

Block Public Access settings for this account

Storage Lens

Dashboards

AWS Organizations settings

Feature spotlight

Successfully created bucket "awsbuckets-01"

View details

X

Info

To upload files and folders, or to configure additional bucket settings choose [View details](#).

Amazon S3 > Buckets

Account snapshot

View Storage Lens dashboard

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

Buckets (1)

Info

Refresh

Copy ARN

Empty

Delete

Create bucket

Buckets are containers for data stored in S3. [Learn more](#)

Find buckets by name

< 1 >

Settings

|                       | Name          | AWS Region                              | Access                | Creation date                       |
|-----------------------|---------------|---|-----------------------|-------------------------------------|
| <input type="radio"/> | awsbuckets-01 | Asia Pacific (Singapore) ap-southeast-1 | Objects can be public | March 4, 2023, 17:12:29 (UTC+05:30) |

Feedback

Language

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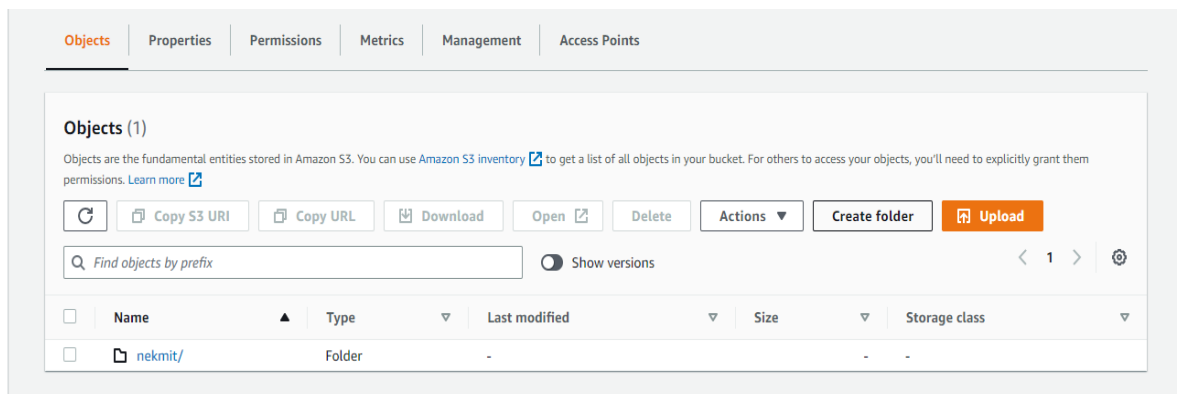
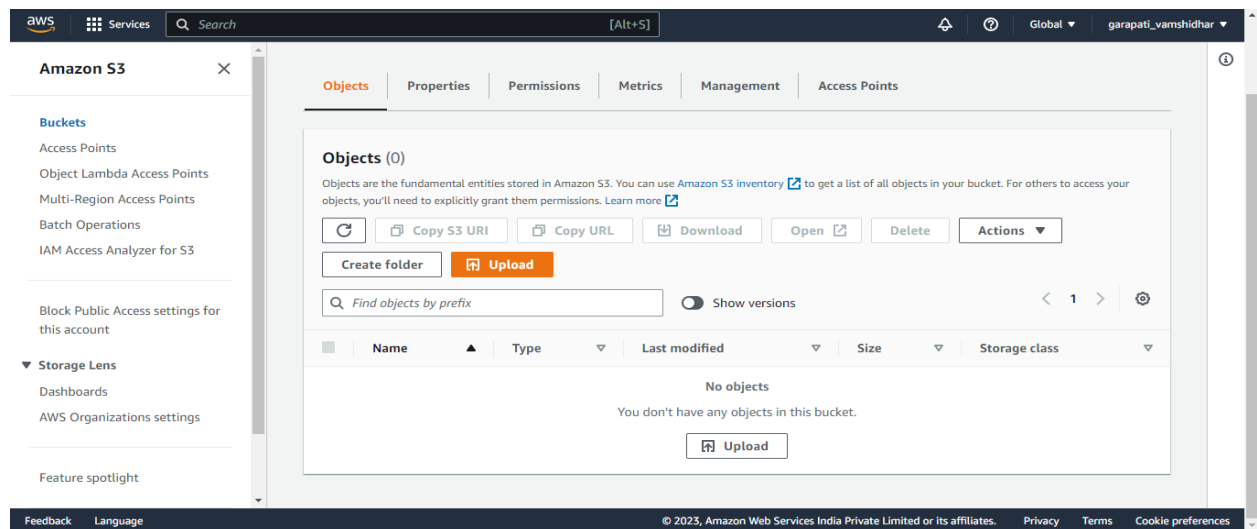
Privacy

Terms

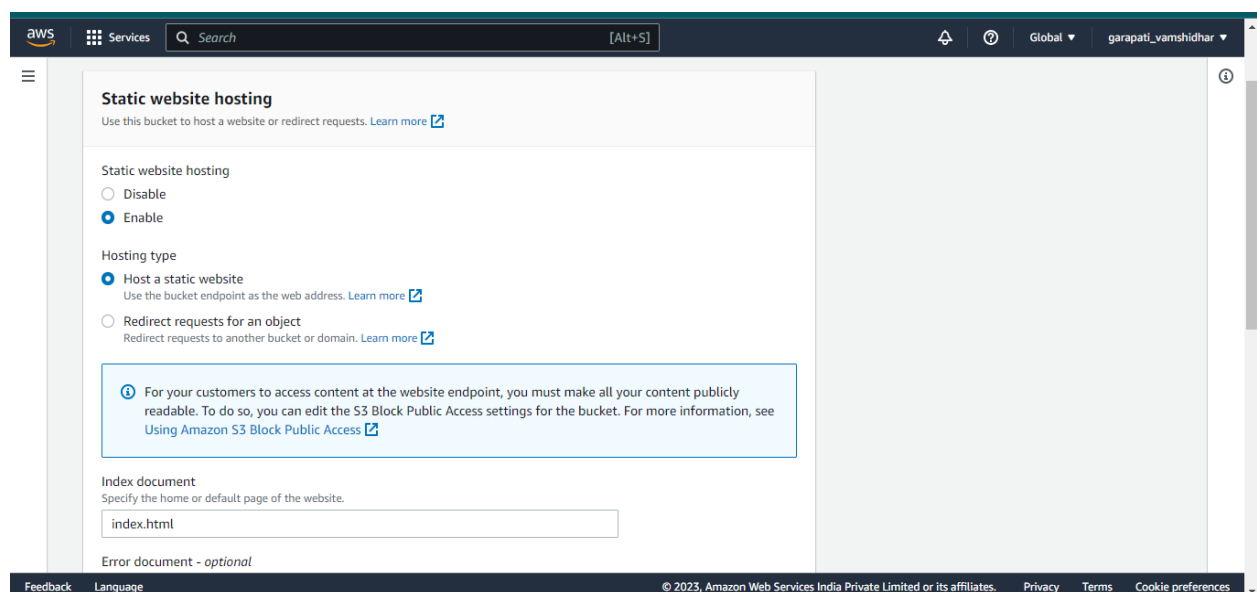
Cookie preferences



7. Now upload the required files and folders. Click on upload.



8. Now enable the static web hosting.



## 9. Generate the bucket policies by clicking on **generate policy**.

The screenshot shows the AWS IAM console's 'Bucket policy' editor. The left sidebar lists various Amazon S3 services, with 'Buckets' selected. The main area displays the 'Bucket policy' title and a description: 'The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)'. Below this are 'Edit' and 'Delete' buttons. A large text area contains the following JSON policy:

```
{
  "Version": "2012-10-17",
  "Id": "Policy1677943438240",
  "Statement": [
    {
      "Sid": "Stmt1677943436012",
      "Effect": "Allow",
      "Principal": "*",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectVersion"
      ],
      "Resource": "arn:aws:s3:::my---bucket1/*"
    }
  ]
}
```

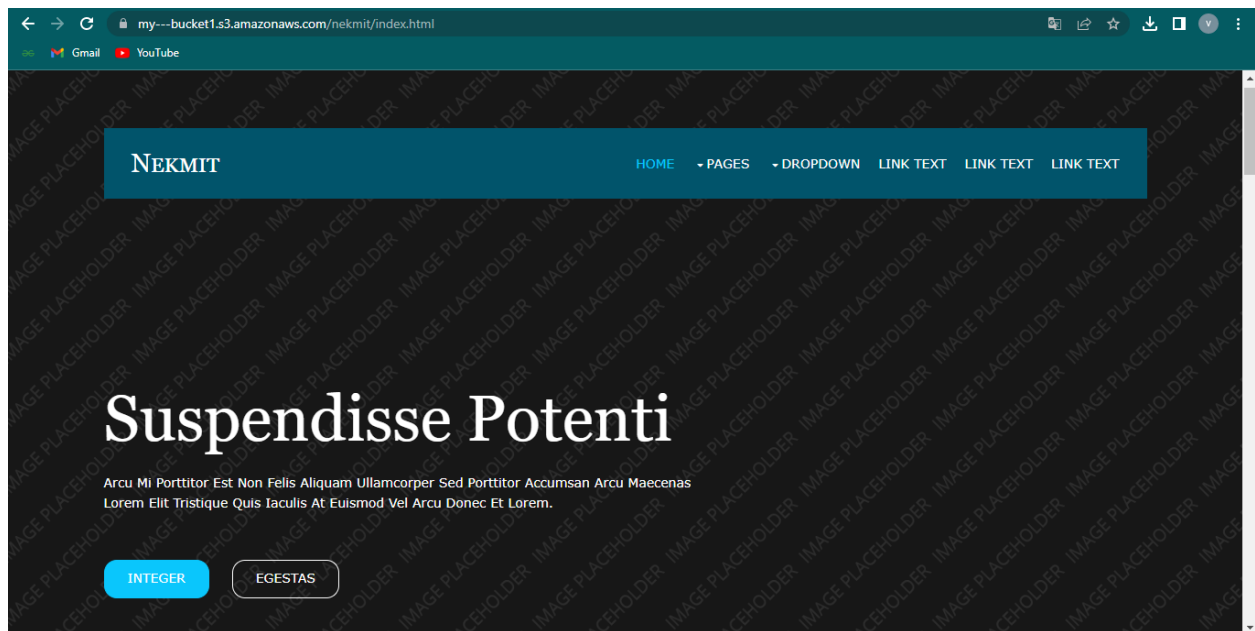
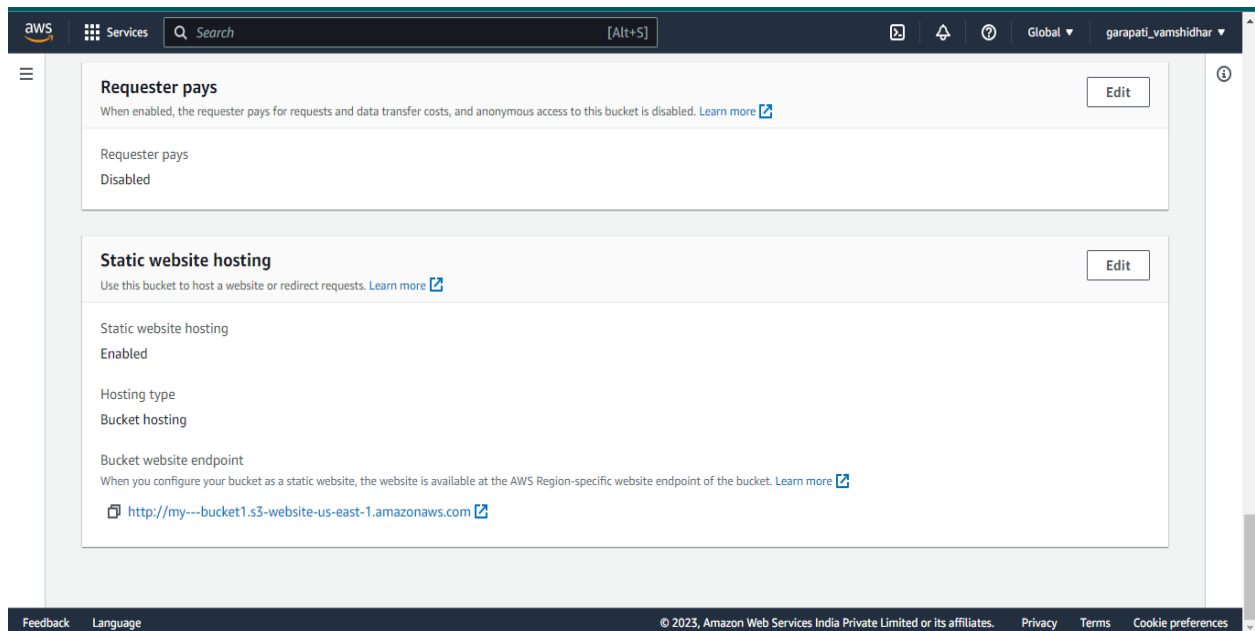
A 'Copy' button is located to the right of the JSON text. The footer of the console shows 'Feedback', 'Language', and copyright information for 2023.

The screenshot shows the AWS S3 console's 'my---bucket1' bucket details page. The breadcrumb navigation shows 'Amazon S3 > Buckets > my---bucket1'. The bucket name 'my---bucket1' is displayed with an 'Info' link and a 'Publicly accessible' badge. Below this are tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is active, showing 'Objects (1)'. A description states: 'Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)'. Below the description are buttons for 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar with the placeholder 'Find objects by prefix' and a 'Show versions' toggle are also present. A table lists the objects:

| <input type="checkbox"/> | Name    | Type   | Last modified | Size | Storage class |
|--------------------------|---------|--------|---------------|------|---------------|
| <input type="checkbox"/> | nekmit/ | Folder | -             | -    | -             |

The footer of the console shows 'Feedback', 'Language', and copyright information for 2023.

\*In the static webhosting we can find the URL. Now copy and paste the URL in the browser.



\*The object reference url is

**<https://my---bucket1.s3.amazonaws.com/nekmit/index.html>**