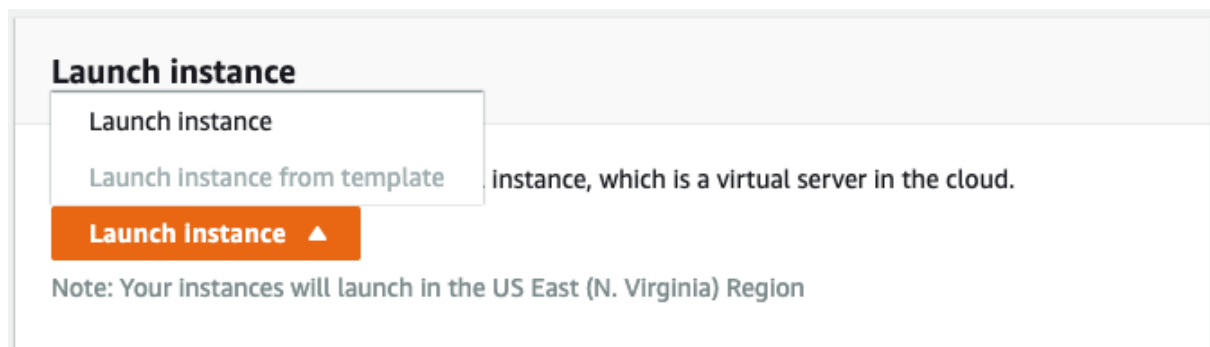




How to Install Apache Web Server on EC2 Linux 2

Let's Launch an Amazon EC2 instance



Step 1: Choose an Amazon Machine Image (AMI)

[Cancel and Exit](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

[Search by Systems Manager parameter](#)

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☐ Free tier only ⓘ

Amazon Linux
 Free tier eligible

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0aeeebd8d2ab47354 (64-bit x86) / ami-0b683223eeade51eb (64-bit Arm)

Select

☒ 64-bit (x86)
☐ 64-bit (Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 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 approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

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 families

Current generation

[Show/Hide Columns](#)

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	
<input type="checkbox"/>	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	
<input type="checkbox"/>	t3	t3.medium	2	4	EBS only	Yes	Up to 5 Gigabit	

[Cancel](#)
[Previous](#)
[Review and Launch](#)
[Next: Configure Instance Details](#)

Click Next: Configure Instance Details

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 ⓘ	<input type="text" value="1"/>	Launch into Auto Scaling Group ⓘ
Purchasing option ⓘ	<input type="checkbox"/> Request Spot instances	
Network ⓘ	<input type="text" value="vpc-4b5dca36 (default)"/>	Create new VPC
Subnet ⓘ	<input type="text" value="No preference (default subnet in any Availability Zone)"/>	Create new subnet
Auto-assign Public IP ⓘ	<input type="text" value="Use subnet setting (Enable)"/>	
Placement group ⓘ	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation ⓘ	<input type="text" value="Open"/>	
Domain join directory ⓘ	<input type="text" value="No directory"/>	Create new directory
IAM role ⓘ	<input type="text" value="None"/>	Create new IAM role
Shutdown behavior ⓘ	<input type="text" value="Stop"/>	
Stop - Hibernate behavior ⓘ	<input type="checkbox"/> Enable hibernation as an additional stop behavior	
Enable termination protection ⓘ	<input type="checkbox"/> Protect against accidental termination	
Monitoring ⓘ	<input type="checkbox"/> Enable CloudWatch detailed monitoring Additional charges apply.	
Tenancy ⓘ	<input type="text" value="Shared - Run a shared hardware instance"/> Additional charges will apply for dedicated tenancy.	
Elastic Inference ⓘ	<input type="checkbox"/> Add an Elastic Inference accelerator Additional charges apply.	

[Cancel](#)

[Previous](#)

[Review and Launch](#)

[Next: Add Storage](#)

Click 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 <small>i</small>	Device <small>i</small>	Snapshot <small>i</small>	Size (GiB) <small>i</small>	Volume Type <small>i</small>	IOPS <small>i</small>	Throughput (MB/s) <small>i</small>	Delete on Termination <small>i</small>	Encryption <small>i</small>
Root	/dev/xvda	snap-02d2a0614e5ce0ce4	8	General Purpose S	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypte <small>i</small>

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous **Review and Launch** Next: Add Tags

Click Next: Add Tags

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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
(128 characters maximum)	(256 characters maximum)			

This resource currently has no tags

Choose the Add tag button or [click to add a Name tag](#).
Make sure your [IAM policy](#) includes permissions to create tags.

Add Tag

(Up to 50 tags maximum)

Cancel

Previous

Review and Launch

Next: Configure Security Group

Click Add Tag

How to Install Apache Web Server on EC2 Linux 2

5

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 (128 characters maximum)	Value (256 characters maximum)	Instances <small>i</small>	Volumes <small>i</small>	Network Interfaces <small>i</small>	
<input type="text" value="Demo"/>	<input type="text" value="Apache"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="X"/>

Add another tag

(Up to 50 tags maximum)

Cancel

Previous

Review and Launch

Next: Configure Security Group

Here Define a tag with key and value, then Click Next:Configure Security Group

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 name:

Description:

Type <small>i</small>	Protocol <small>i</small>	Port Range <small>i</small>	Source <small>i</small>	Description <small>i</small>
SSH <small>v</small>	TCP	22	Custom <small>v</small> 0.0.0.0/0	e.g. SSH for Admin C



Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel

Previous

Review and Launch

Add Rule HTTP and HTTPS protocols

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 name:

Description:

Type <small>i</small>	Protocol <small>i</small>	Port Range <small>i</small>	Source <small>i</small>	Description <small>i</small>
SSH <small>v</small>	TCP	22	Anywhere <small>v</small> 0.0.0.0/0, ::/0	e.g. SSH for Admin C
HTTP <small>v</small>	TCP	80	Anywhere <small>v</small> 0.0.0.0/0, ::/0	e.g. SSH for Admin C
HTTPS <small>v</small>	TCP	443	Custom <small>v</small> 0.0.0.0/0, ::/0	e.g. SSH for Admin C

Add Rule



Warning

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel

Previous

Review and Launch

Click Review and Launch

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

Free tier eligible

Console Home

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0aeeeebd8d2ab47354

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon t2md 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 a...

Root Device Type: ebs Virtualization type: hvm

Edit AMI

Instance Type

ECUs

vCPUs

Memory (GiB)

Instance Storage (GB)

EBS-Optimized Available

Network Performance

t2.micro	-	1	1	EBS only	-	Low to Moderate
----------	---	---	---	----------	---	-----------------

Edit instance type

Security group name

Description

launch-wizard-2

launch-wizard-2 created 2021-06-15T08:23:49.219-04:00

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ
SSH	TCP	22	0.0.0.0/0	
SSH	TCP	22	::/0	
HTTP	TCP	80	0.0.0.0/0	
HTTP	TCP	80	::/0	
HTTPS	TCP	443	0.0.0.0/0	
HTTPS	TCP	443	::/0	

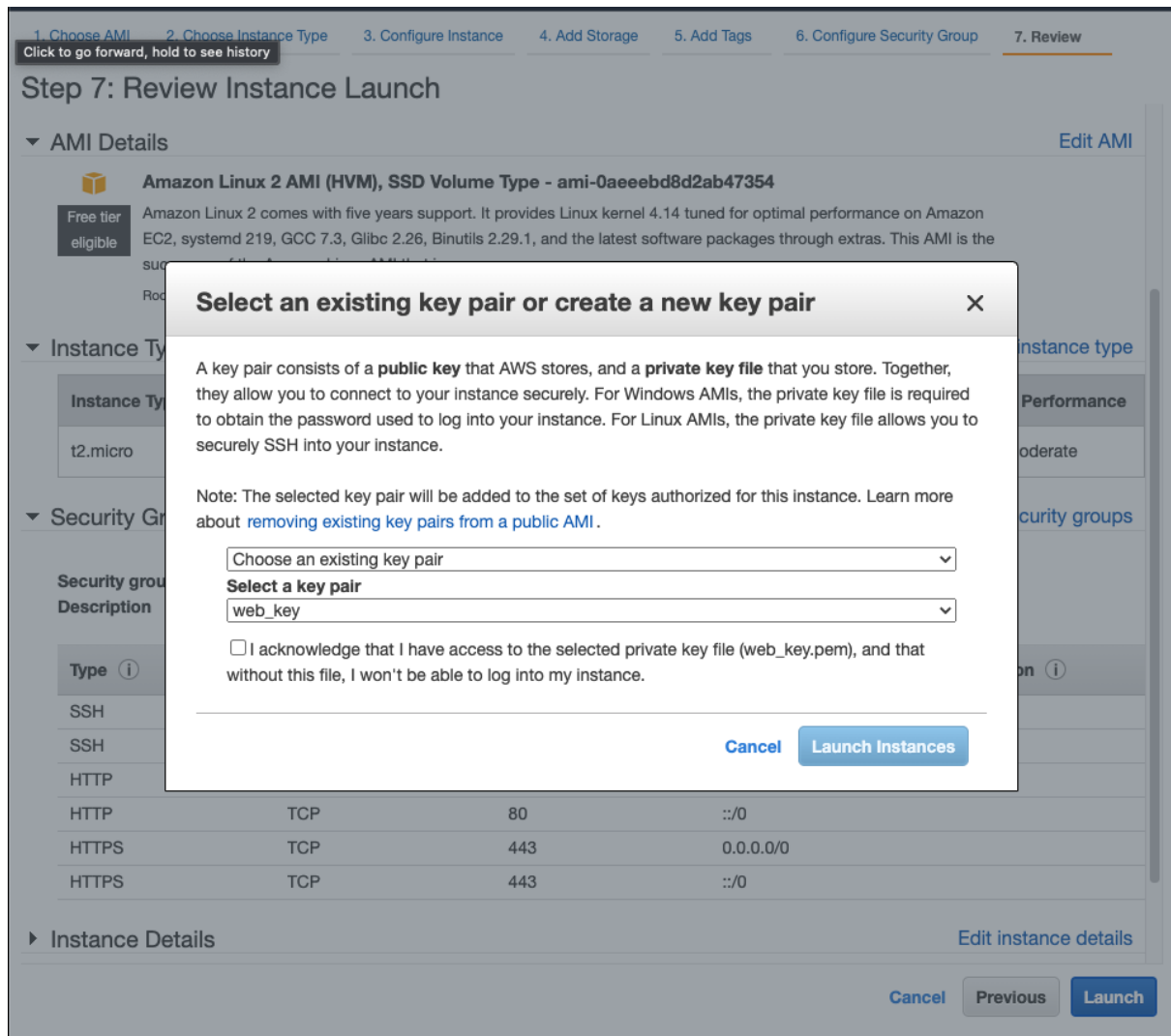
Edit security groups

Instance Details

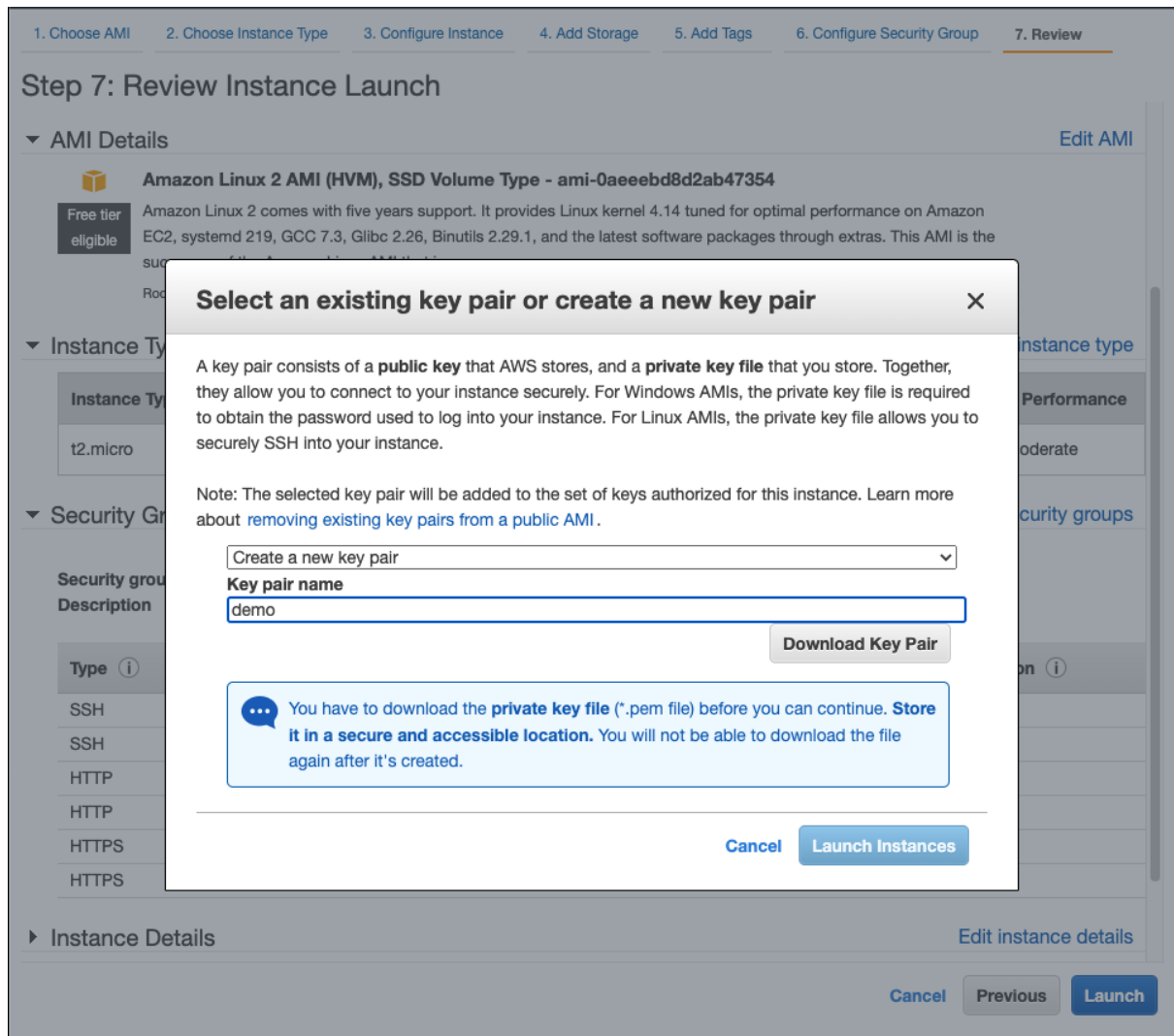
Edit instance details

Cancel
Previous
Launch

Click Launch



Here if you have you need key pair to connect your instance securely. If you have one just check the box I knowledge.... then click Launch Instances. or you can create a new key pair check below!



Click Download Key Pair button. Later check your Download Directory. You created a new key pair. Then click Launch Instances.

Launch Status



Your instances are now launching

The following instance launches have been initiated: [i-0b4ab6846f2ee9efc](#) [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).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

▼ Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)
- [Create and attach additional EBS volumes](#) (Additional charges may apply)
- [Manage security groups](#)

[View Instances](#)

Click View Instances

The screenshot displays the AWS Management Console's 'Instances' page. At the top, there are buttons for 'Connect', 'Instance state', 'Actions', and 'Launch Instances'. A search bar labeled 'Filter instances' is also present. Below these, a table lists instances with columns for Name, Instance ID, Instance state, and Instance type. One instance is selected, and an 'Edit Name' dialog box is open, showing the name 'demo-EC2' in a text input field. Below the dialog, the details of a specific instance (i-0b4ab6846f2ee9efc) are shown, including its state as 'Running' and its public IPv4 address.

Name	Instance ID	Instance state	Instance type
-	i-0173f059cc2bc034d	Terminated	t2.micro
-		Running	t2.micro
web		Stopped	t2.micro

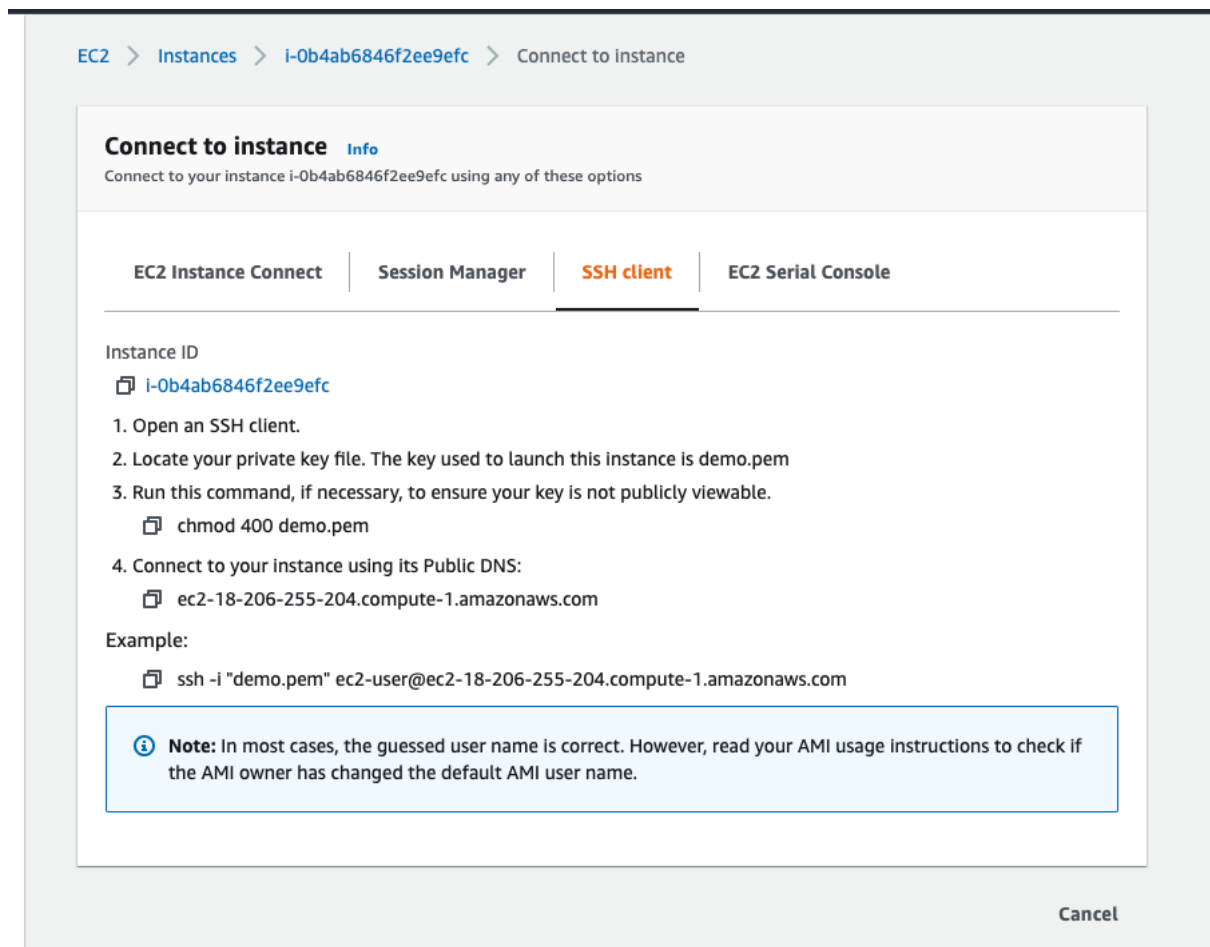
Instance: i-0b4ab6846f2ee9efc

Tags

▼ Instance summary Info

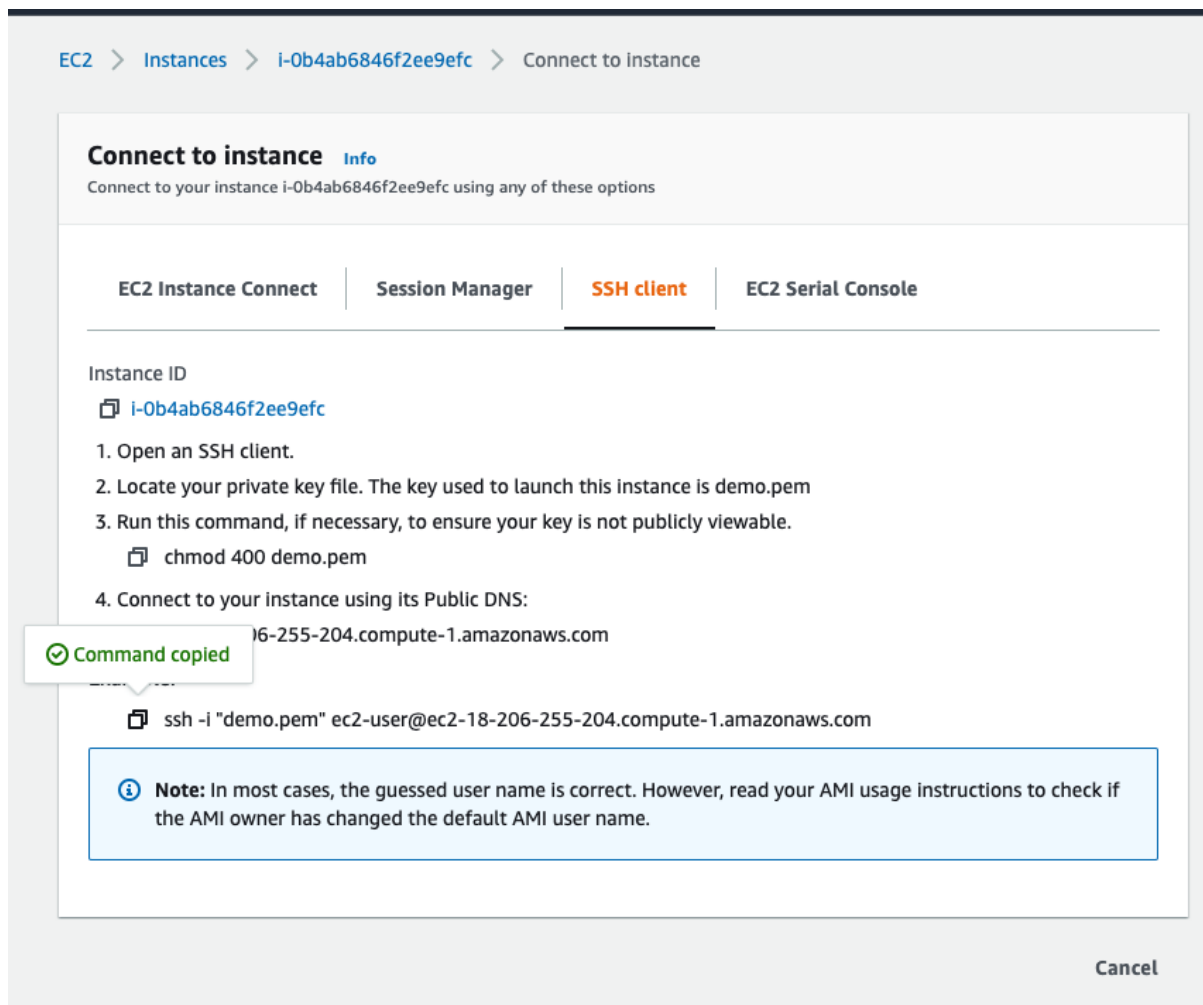
Instance ID	Public IPv4 address
i-0b4ab6846f2ee9efc	18.206.255.204 open address
Private IPv4 addresses	Instance state
-	Running

Here you can give a name your new instance then click upper Connect button



In order to connect our EC2 we need (Private Key) open your Terminal to find your newly created key pair and let's give an authentication via `chmod 400` command

```
~ cd Downloads
Downloads ls
demo.pem      web_key.pem
Downloads chmod 400 demo.pem
Downloads ls -l demo.pem
-r-----@ 1 tepe staff 1704
Downloads
```



ssh command copied here got to your Terminal and paste then hit Enter then Terminal ask yes or no⇒ write yes and hit enter again.

```
→ Downloads ssh -i "demo.pem" ec2-user@ec2-18-206-255-204.compute-1.amazonaws.com
The authenticity of host 'ec2-18-206-255-204.compute-1.amazonaws.com (18.206.255.204)' can't be established.
ED25519 key fingerprint is SHA256:3ixnEroYNykfiSEfhsMtedzec+QtC+UIBUUnZfHw0YE.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-18-206-255-204.compute-1.amazonaws.com' (ED25519) to
the list of known hosts.

  _ _ | ( _ _ )
  _ | ( _ _ ) /   Amazon Linux 2 AMI
 _ _ | \ _ _ | _ _ |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-93-118 ~]$
```

Now you can see we connected our instance ⇒ [ec2-user@ip-172-31-93-118 ~]\$

Here you can check for update ==> `sudo yum update -y`

```
[ec2-user@ip-172-31-93-118 ~]$ sudo yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.7 kB 00:00:00
No packages marked for update com/amazon-linux-2/
[ec2-user@ip-172-31-93-118 ~]$ █ 5.28 ~]$
```

Let's install the Apache Web Server-default page

Our Terminal is open ==> `sudo yum install httpd -y`

```
ec2-user@ip-172-31-93-118:~
[ec2-user@ip-172-31-93-118 ~]$ sudo yum install httpd -y
```

Check the status and then Start Apache Web Server ==> `sudo systemctl status httpd` ==>

`sudo systemctl start httpd`

```
ec2-user@ip-172-31-93-118:~
[ec2-user@ip-172-31-93-118 ~]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: inactive (dead)
   Docs: man:httpd.service(8)
[ec2-user@ip-172-31-93-118 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-93-118 ~]$ █
```

Now status of Apache Web Server ==> `sudo systemctl status httpd`


```

ec2-user@ip-172-31-93-118:~
[ec2-user@ip-172-31-93-118 ~]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset:
   isabled)
   Active: active (running) since Tue 2021-06-15 12:59:31 UTC; 1min 29s ago
     Docs: man:httpd.service(8)
  Main PID: 3534 (httpd)
    Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes serve
/sec: 0 B/sec"
    CGroup: /system.slice/httpd.service
            └─3534 /usr/sbin/httpd -DFOREGROUND
              └─3535 /usr/sbin/httpd -DFOREGROUND
                └─3536 /usr/sbin/httpd -DFOREGROUND
                  └─3537 /usr/sbin/httpd -DFOREGROUND
                    └─3538 /usr/sbin/httpd -DFOREGROUND
                      └─3539 /usr/sbin/httpd -DFOREGROUND

Jun 15 12:59:31 ip-172-31-93-118.ec2.internal systemd[1]: Starting The Apache HTT..
Jun 15 12:59:31 ip-172-31-93-118.ec2.internal systemd[1]: Started The Apache HTTP..
Hint: Some lines were ellipsized, use -l to show in full.
[ec2-user@ip-172-31-93-118 ~]$

```

As you see our apache server is active(running) , open your instance(EC2) and copy Public IP

Instance summary for i-0b4ab6846f2ee9efc [Info](#)

Updated less than a minute ago



Connect

Instance state

✔ Public IPv4 address copied

Instance ID

📄 i-0b4ab6846f2ee9efc

Private IPv4 addresses

📄 172.31.93.118

Public IPv4 DNS

📄 ec2-18-206-255-204.compute-1.amazonaws.com | [open address](#)

Instance type

t2.micro

VPC ID

📄 [vpc-4b5dca36](#)

IAM Role

–

📄 18.206.255.204 | [open address](#)

Instance state

⋮ Pending

Private IPv4 DNS

📄 ip-172-31-93-118.ec2.internal

Elastic IP addresses

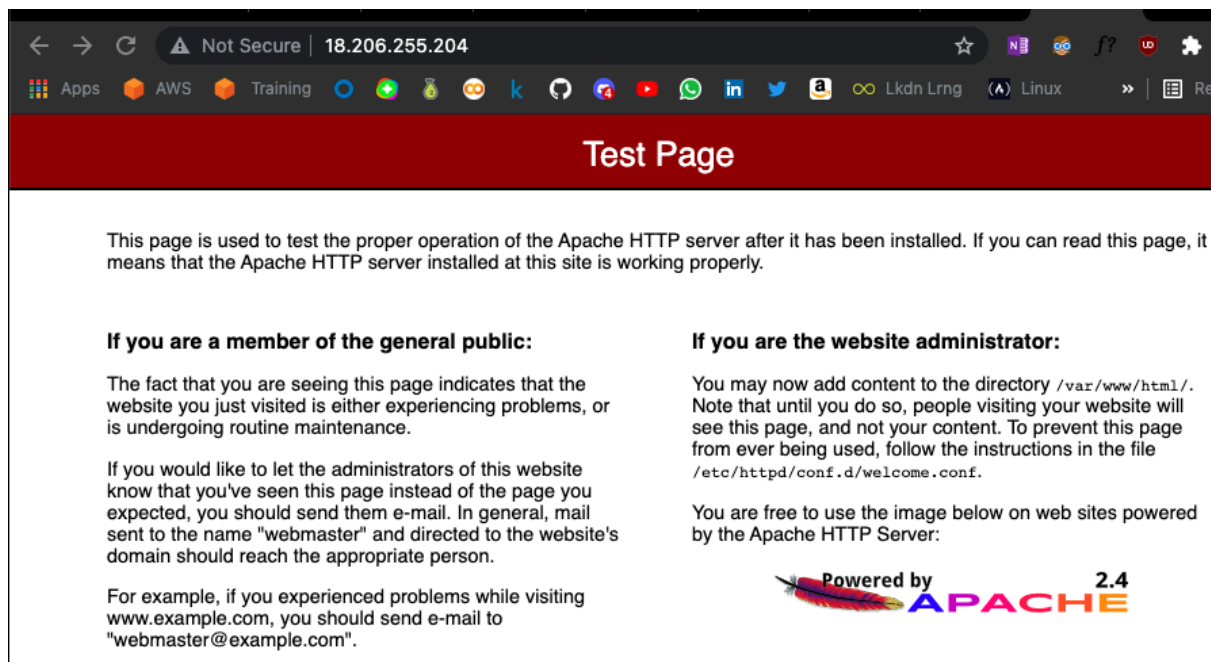
–

AWS Compute Optimizer finding

ⓘ Opt-in to AWS Compute Optimizer for recommendations. | [Learn more](#)

Subnet ID

📄 [subnet-7ae6a75b](#)



open your browser and paste ip address ==> This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.

Let's transfer github your portfolio html page.

First set permission folders unders `/var/www/html/` then cd html directory

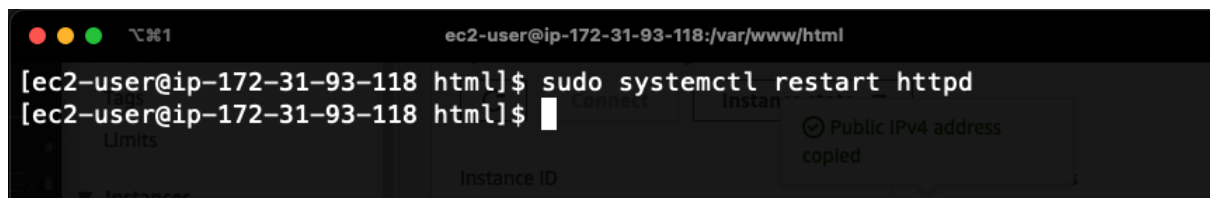
```
ec2-user@ip-172-31-93-118:/var/www/html
[ec2-user@ip-172-31-93-118 ~]$ sudo chmod -R 777 /var/www/html
[ec2-user@ip-172-31-93-118 ~]$ cd /var/www/html
[ec2-user@ip-172-31-93-118 html]$
```

Create index.html file

Use Vim editor and copy your html portfolio page within vim press Esc :wq and hit enter

```
[ec2-user@ip-172-31-93-118 html]$ touch index.html
[ec2-user@ip-172-31-93-118 html]$ vi index.html
[ec2-user@ip-172-31-93-118 html]$
```

In order to restart your apache web server \Rightarrow `sudo systemctl restart httpd`

A terminal window with a dark background. The title bar shows three colored circles (red, yellow, green) and the text "ec2-user@ip-172-31-93-118:/var/www/html". The terminal content shows the command `sudo systemctl restart httpd` being entered and executed. The prompt changes from `[ec2-user@ip-172-31-93-118 html]$` to `[ec2-user@ip-172-31-93-118 html]$` after the command. In the background, a faint AWS Management Console interface is visible, showing a table with columns for "Limits", "Instance ID", and "Public IPv4 address", with a "copied" status next to the IP address.

```
ec2-user@ip-172-31-93-118:/var/www/html
[ec2-user@ip-172-31-93-118 html]$ sudo systemctl restart httpd
[ec2-user@ip-172-31-93-118 html]$
```

Finally, open your instance and copy public IP then open your browser and past the IP

EC2 > ... > i-0b4ab6846f2ee9efc

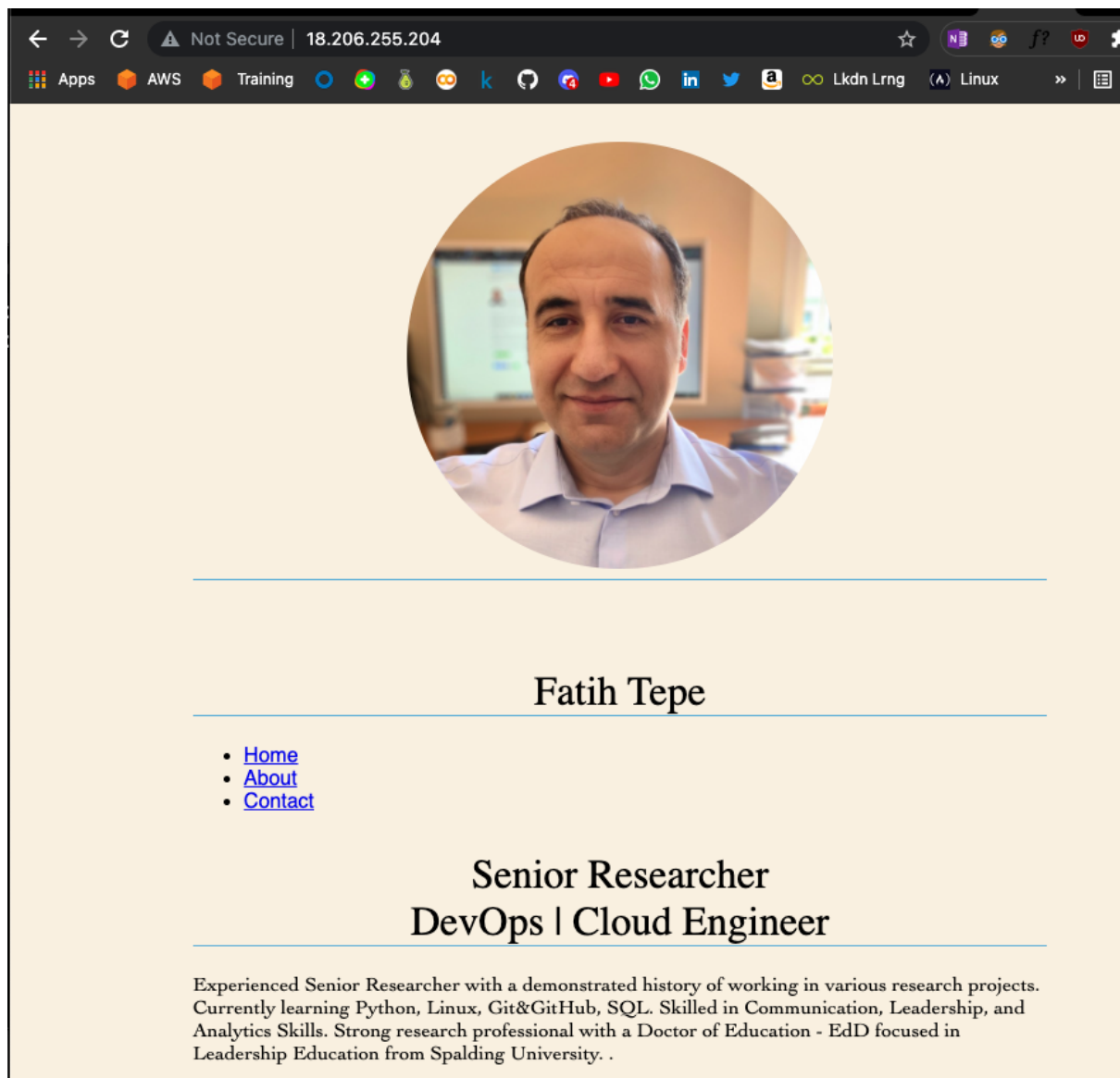
Instance summary for i-0b4ab6846f2ee9efc [Info](#)

Updated less than a minute ago

[Refresh](#) [Connect](#) [Instance state](#)

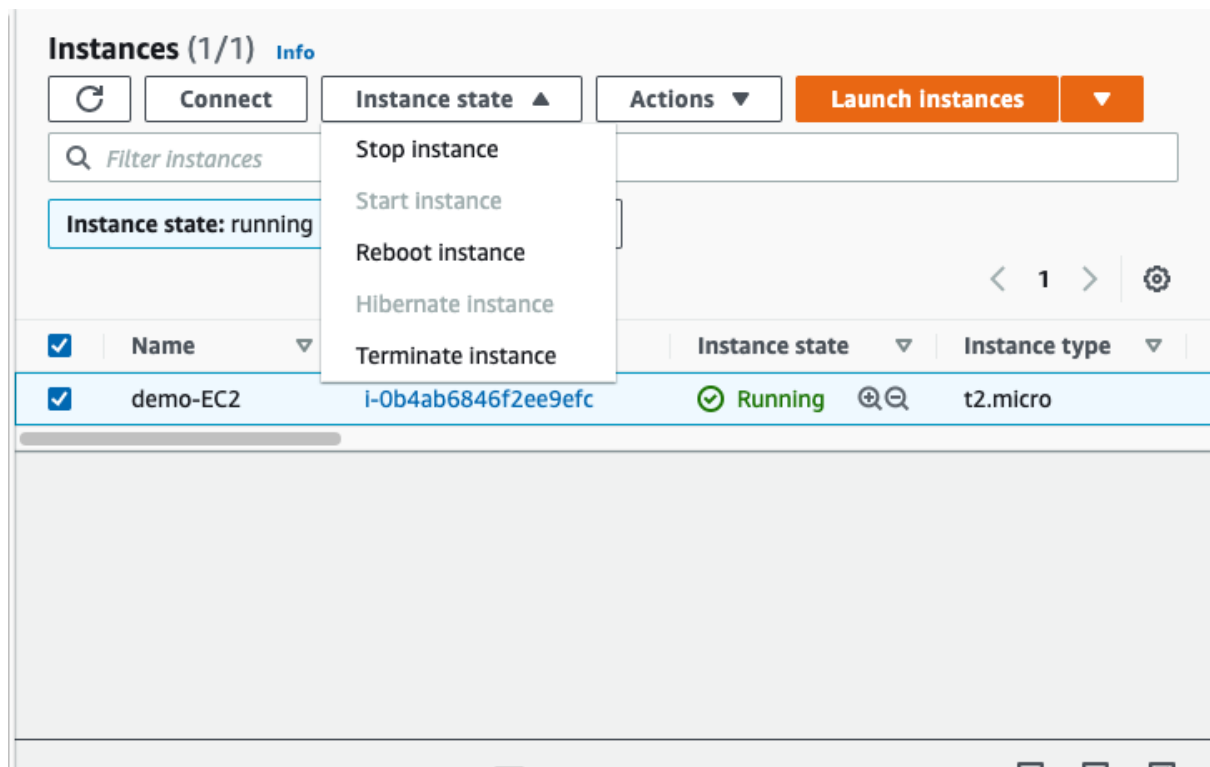
✔ Public IPv4 address copied

Instance ID i-0b4ab6846f2ee9efc	Public IPv4 address 18.206.255.204 open address
Private IPv4 addresses 172.31.93.118	Instance state ⋮ Pending
Public IPv4 DNS ec2-18-206-255-204.compute-1.amazonaws.com open address	Private IPv4 DNS ip-172-31-93-118.ec2.internal
Instance type t2.micro	Elastic IP addresses -
VPC ID vpc-4b5dca36	AWS Compute Optimizer finding ⓘ Opt-in to AWS Compute Optimizer for recommendations. Learn more
IAM Role -	Subnet ID subnet-7ae6a75b



We are done! Do not forget to STOP or TERMINATE YOUR EC2

Select your instance and click Instance State click (Stop Instance or Terminate Instance)



Feel free to contribute or use my GitHub repos => <https://github.com/fatihtepe>