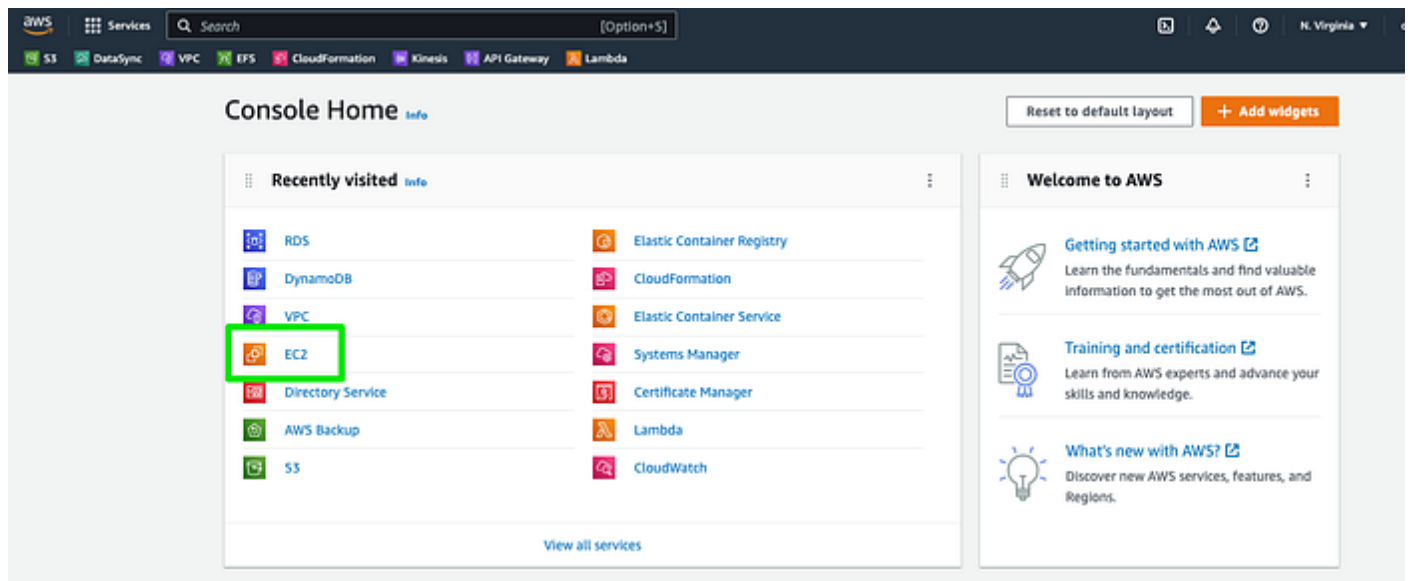


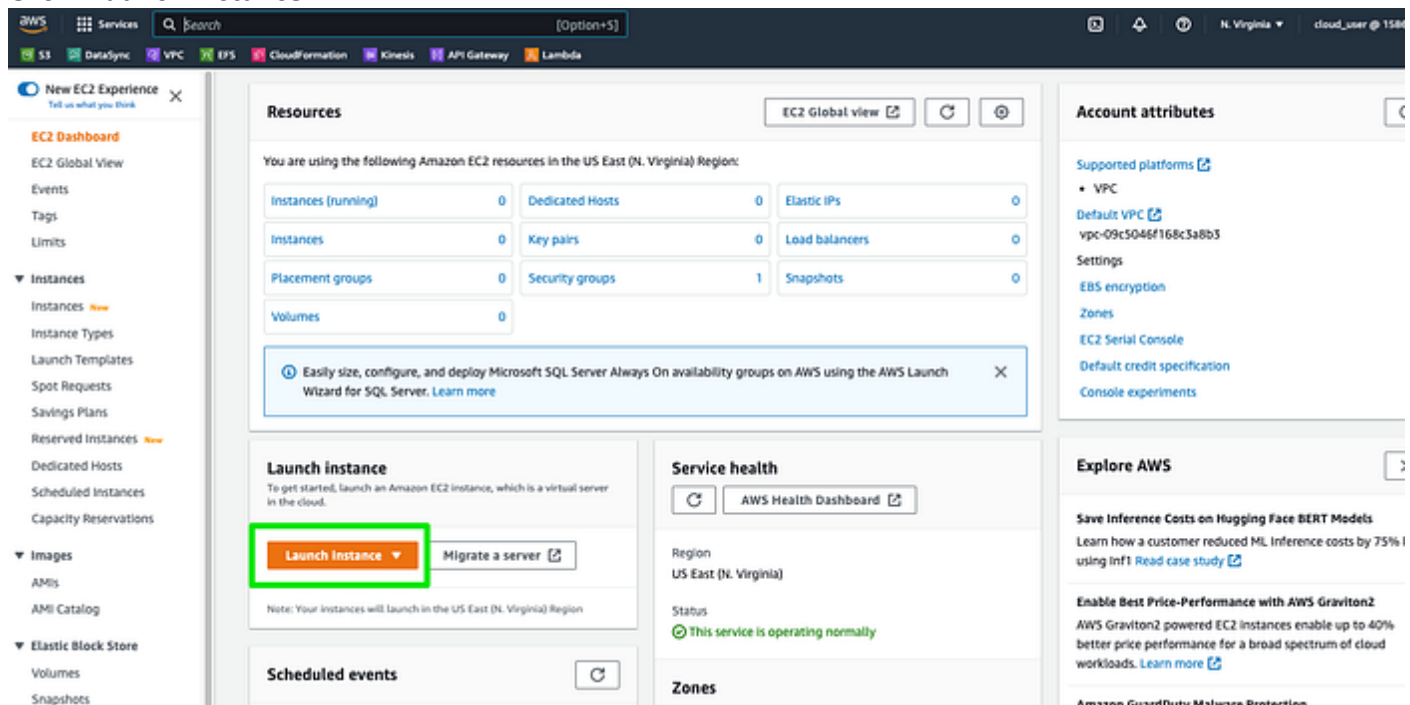
CC Amazon EC2

Step 1: Deploy EC2 Instance

Access the EC2 service through your AWS account. Use the search bar at the top left to locate the service if it is not listed on your homepage.



Click "Launch Instance"



Now we can name it and select the desired AMI and instance type. I'll choose an instance type that remains in the free tier.

Services

Search

[Option+S]

S3

DataSync

VPC

EFS

CloudFormation

Kinesis

API Gateway

Lambda

Name

My-EC2-WebServer

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

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

Windows

Microsoft

Red Hat

Red Hat

S

>

Search

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

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

Free tier eligible

ami-0b0dcb5067f052a63 (64-bit (x86)) / ami-01b5ec3ed8678d8b7 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20221103.3 x86_64 HVM gp2

Architecture

AMI ID

64-bit (x86)

ami-0b0dcb5067f052a63

Verified provider

▼ Instance type Info

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory

On-Demand Linux pricing: 0.0116 USD per Hour

On-Demand Windows pricing: 0.0162 USD per Hour

Compare instance types

Next, we need to create a Key Pair. This will issue a set of SSH keys to enable us to remote into our instance via SSH.

Create key pair



Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#)

Key pair name

EC2-WebServer-Demo

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

- ☒ RSA
RSA encrypted private and public key pair
- ☐ ED25519
ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

- ☒ .pem
For use with OpenSSH
- ☐ .ppk
For use with PuTTY

Cancel

Create key pair

Next, we need to create a new security group to allow the public to access the webpage and allow us to ssh into the server. Check all boxes and input your IP address in the "Allow SSH traffic from" drop menu. This will allow only access from your IP to be able to SSH to the server.

▼ Network settings [Info](#)

[Edit](#)

Network [Info](#)

vpc-09c5046f168c3a8b3

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


We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow SSH traffic from
Helps you connect to your instance

My IP

☒ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

 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. [×](#)

Click "Launch Instance" to deploy the instance.

▼ Summary

Number of instances [Info](#)

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)

ami-0b0dcb5067f052a63

Virtual server type (instance type)



t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

 **Free tier:** In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet. 

Cancel

Launch instance

Step 2: SSH into the Instance

Now will SSH into the instance. From the EC2 services page locate and click on your instance.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
My-EC2-WebServer	i-0e50109b7ebf9e116	Running	t2.micro	-	No alarms	us-east-1b	ec2-3-86-229-81.compute-1.amazonaws.com	3.86.229.81

Click on the “Connect” button then the “SSH client tab”. This will display the necessary information and commands we will use to remote in.

Instance summary for i-0e50109b7ebf9e116 (My-EC2-WebServer) Info

Updated less than a minute ago

Instance ID i-0e50109b7ebf9e116 (My-EC2-WebServer)	Public IPv4 address 3.86.229.81 open address	Private IPv4 addresses 172.31.94.149
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-86-229-81.compute-1.amazonaws.com open address
Hostname type IP name: ip-172-31-94-149.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-94-149.ec2.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding User: awscli:158640107909:user/cloud_user is not authorized to perform: compute:optimizer:GetEnrollmentStatus on resource: *
Auto-assigned IP address 3.86.229.81 [Public IP]	VPC ID vpc-09c5046f168c3a8b3	

Connect to instance Info

Connect to your instance i-0e50109b7ebf9e116 (My-EC2-WebServer) using any of these options

EC2 Instance Connect | Session Manager | **SSH client** | EC2 serial console

Instance ID
i-0e50109b7ebf9e116 (My-EC2-WebServer)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is EC2-WebServer-Demo.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.

```
chmod 400 EC2-WebServer-Demo.pem
```
4. Connect to your instance using its Public DNS:

```
ec2-3-86-229-81.compute-1.amazonaws.com
```

Example:

```
ssh -i "EC2-WebServer-Demo.pem" ec2-user@ec2-3-86-229-81.compute-1.amazonaws.com
```

Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Open up a terminal on your local machine and follow the instructions as outlined.

```

ec2-user@ip-172-31-94-149:~$ chmod 400 EC2-WebServer-Demo.pem
ec2-user@ip-172-31-94-149:~$ ssh -i "EC2-WebServer-Demo.pem" ec2-user@ec2-3-86-229-81.compute-1.amazonaws.com
The authenticity of host 'ec2-3-86-229-81.compute-1.amazonaws.com (3.86.229.81)' can't be established.
ED25519 key fingerprint is SHA256:dTx5dsjY3b0CWzQBTPtIdaULCyJpWiVsgurERfbrD2E.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-86-229-81.compute-1.amazonaws.com' (ED25519) to the list of known hosts.

  _|_  _|_  )
  _| (  /    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-172-31-94-149 ~]$

```

Step 3: Install Apache

Let's create a BASH script for the installation. Open up your favorite editor and input the following code.

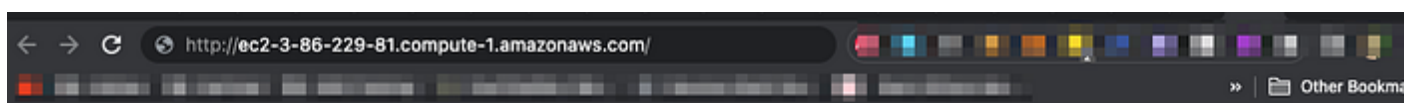
```
#!/bin/bash
sudo yum update -y
yum install -y httpd
sudo systemctl start httpd
sudo systemctl enable httpd
sudo echo '<center><h1>This Apache Web Server is Running on an AWS EC2 Instance
</h1></center>' > /var/www/html/index.html
```

Save the file as “install.sh” and give it execute permissions and run the script.

```
[ec2-user@ip-172-31-94-149 ~]$ vim install.sh
[ec2-user@ip-172-31-94-149 ~]$ chmod +x install.sh
[ec2-user@ip-172-31-94-149 ~]$ ./install.sh
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
```

Final Step: Access web site

Now that the service has been installed and is running. Input the public IP of the instance into a web browser to confirm.



This Apache Web Server is Running on an AWS EC2 Instance