

Name : Abhishek Chaurasiya
Class : D15B
RollNo : 09
Subject : Adv. DevOps No. 03

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](#)

Summary

Number of instances [Info](#)

Software Image (AMI)
Amazon Linux 2023 AMI 2023.5.2...[read more](#)
ami-066784287e358dad1

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Instances (3) [Info](#) Last updated less than a minute ago [Refresh](#) [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

[All states](#) [<](#) [1](#) [>](#) [Settings](#)

<input type="checkbox"/>	Name ↗	Instance ID	Instance state ↕	Instance type ↕	Status check	Alarm status	Availability
<input type="checkbox"/>	Master	i-0983647a4f901d302	Running 🔍 🔍	t2.micro	🕒 Initializing	View alarms +	us-east-1d
<input type="checkbox"/>	Worker2	i-0ff7c56de01abc4be	Running 🔍 🔍	t2.micro	🕒 Initializing	View alarms +	us-east-1d
<input type="checkbox"/>	Worker1	i-0de8cab99c709e023	Running 🔍 🔍	t2.micro	🕒 Initializing	View alarms +	us-east-1d

EC2 > Security Groups > sg-0fee21dba433d32c2 - launch-wizard-1 > Edit inbound rules

Edit inbound rules [Info](#)

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info
sg-r-02280ef21f8ba9a15	SSH	TCP	22	Cust... <input type="text" value="0.0.0.0/0"/>	<input type="text"/> Delete

[Add rule](#)

EC2 > Instances > i-0ff7c56de01abc4be > Connect to instance

Connect to instance [Info](#)

Connect to your instance i-0ff7c56de01abc4be (Worker2) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console



Port 22 (SSH) is open to all IPv4 addresses

Port 22 (SSH) is currently open to all IPv4 addresses, indicated by **0.0.0.0/0** in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 18.206.107.24/29. [Learn more](#).

Instance ID

i-0ff7c56de01abc4be (Worker2)

Connection Type



Connect using EC2 Instance Connect

Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.



Connect using EC2 Instance Connect Endpoint

Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address

Docker install commands :

- `sudo dnf update -y6`
- `sudo dnf install -y docker`
- `sudo systemctl start docker`
- `sudo systemctl enable docker`

```
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-50-140 ~]$ sudo su
[root@ip-172-31-50-140 ec2-user]# yum install docker -y
Last metadata expiration check: 0:29:04 ago on Thu Aug 22 08:32:24 2024.
Dependencies resolved.
=====================================================================================================================================
Package                                Architecture      Version            Repository          Size
=====================================================================================================================================
Installing:
docker                                 x86_64            25.0.6-1.amzn2023.0.1  amazonlinux         44 M
Installing dependencies:
containerd                             x86_64            1.7.20-1.amzn2023.0.1  amazonlinux         35 M
iptables-libse                         x86_64            1.8.8-3.amzn2023.0.2  amazonlinux         401 k
iptables-nft                           x86_64            1.8.8-3.amzn2023.0.2  amazonlinux         183 k
libsecp256k1                           x86_64            3.0.0-1.amzn2023.0.1  amazonlinux          75 k
[ec2-user@ip-172-31-34-122 ~]$ docker --version
Docker version 25.0.5, build 5dc9bcc
```

Kubernetes commands :

- `curl -LO "https://dl.k8s.io/release/v1.26.1/bin/linux/amd64/kubeadm"`
- `curl -LO "https://dl.k8s.io/release/v1.26.1/bin/linux/amd64/kubect1"6`
- `curl -LO "https://dl.k8s.io/release/v1.26.1/bin/linux/amd64/kubelet"`
- `sudo install -o root -g root -m 0755 kubeadm /usr/local/bin/kubeadm`

- `sudo install -o root -g root -m 0755 kubectrl /usr/local/bin/kubectrl`
- `sudo install -o root -g root -m 0755 kubelet /usr/local/bin/kubelet`
- `kubeadm version`
- `kubectrl version --client`
- `kubelet --version`
- `sudo tee /etc/systemd/system/kubelet.service <<EOF`
- `[Unit]`
- `Description=Kubernetes Kubelet`
- `Documentation=https://kubernetes.io/docs/home/`
- `After=network.target`
- `[Service]`
- `ExecStart=/usr/local/bin/kubelet`
- `Restart=always`
- `RestartSec=10`
- `LimitNOFILE=65536`
- `LimitNPROC=4096`
- `TimeoutStartSec=0`
- `KillMode=process`
- `[Install]`
- `WantedBy=multi-user.target`
- `EOF`
- `sudo systemctl daemon-reload`
- `sudo systemctl start kubelet`
- `sudo systemctl enable kubelet`
- `sudo kubeadm init`
- `mkdir -p $HOME/.kube`
- `sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config`
- `sudo chown $(id -u):$(id -g) $HOME/.kube/config`

```
[ec2-user@ip-172-31-34-122 ~]$ kubeadm version
kubectrl version --client
kubelet --version
kubeadm version: &version.Info{Major:"1", Minor:"26", GitVersion:"v1.26.1", GitCommit:"8f94681cd294aa8cfd3407b8191f6c70214973a4", GitTreeState:"clean", BuildDate:"2023-01-18T15:56:50Z", GoVersion:"gol.19.5", Compiler:"gc", Platform:"linux/amd64"}
WARNING: This version information is deprecated and will be replaced with the output from kubectrl version --short. Use --output=yaml|json to get the full version.
Client Version: version.Info{Major:"1", Minor:"26", GitVersion:"v1.26.1", GitCommit:"8f94681cd294aa8cfd3407b8191f6c70214973a4", GitTreeState:"clean", BuildDate:"2023-01-18T15:58:16Z", GoVersion:"gol.19.5", Compiler:"gc", Platform:"linux/amd64"}
Kustomize Version: v4.5.7
Kubernetes v1.26.1
```

To clean:

`sudo dnf clean all`

`sudo dnf makecache`

`sudo dnf update -y`