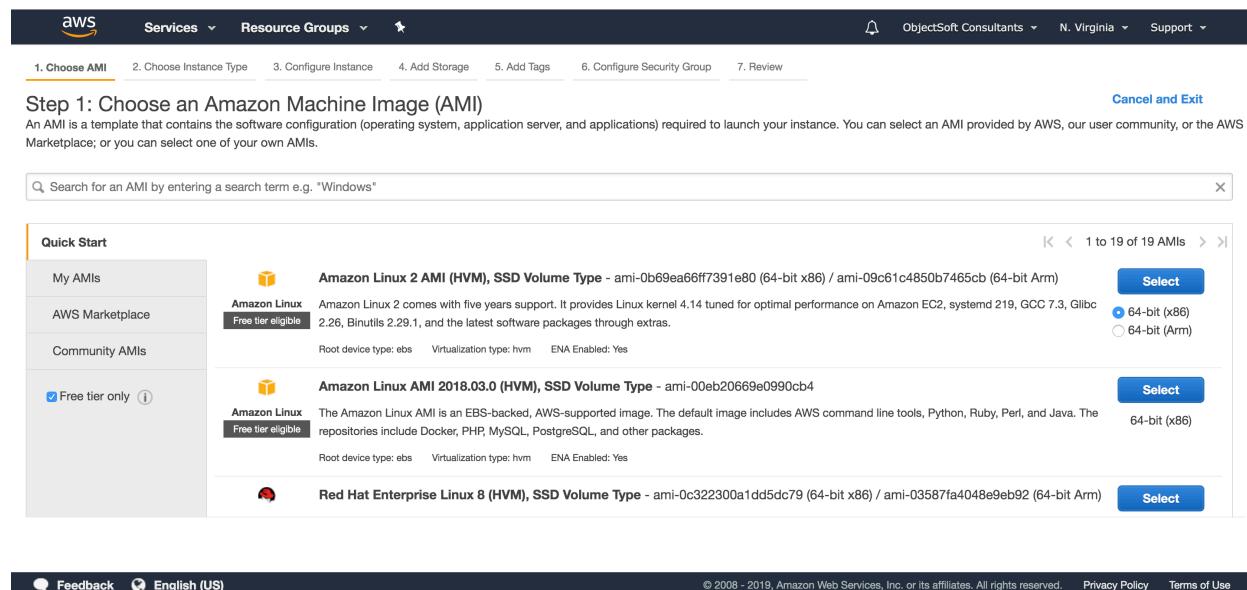


Creating EC2 Instance

Sign into the Console at aws.amazon.com

Locate EC2 service and click on Launch Instance. Choose AMI as below:



Step 1: Choose an Amazon Machine Image (AMI)

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.

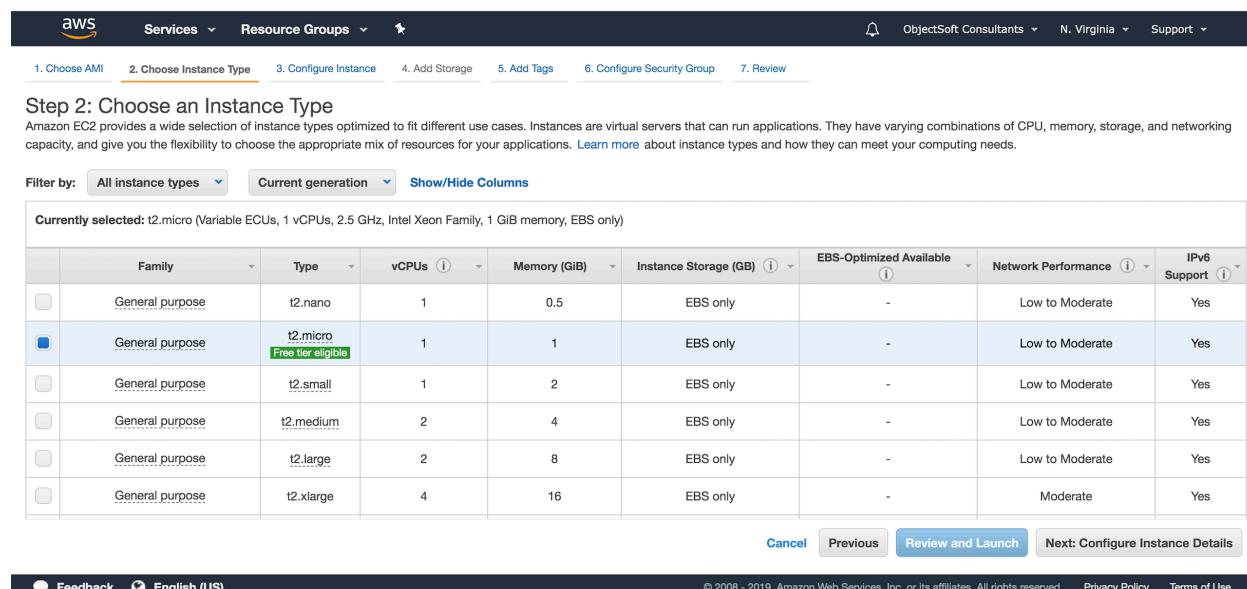
Search for an AMI by entering a search term e.g. "Windows"

Quick Start

AMI Type	AMI Name	Description	Select
Amazon Linux	Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0b69ea66ff7391e80 (64-bit x86) / ami-09c61c4850b7465cb (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, Gilbc 2.26, Binutils 2.29.1, and the latest software packages through extras.	<input checked="" type="radio"/> 64-bit (x86) <input type="radio"/> 64-bit (Arm)
Amazon Linux	Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-00eb20669e0990cb4	The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.	<input type="radio"/> 64-bit (x86)
	Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-0c322300a1dd5dc79 (64-bit x86) / ami-03587fa4048e9eb92 (64-bit Arm)		<input type="radio"/> Select

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Choose an instance type:



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.

Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

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Leave everything as default on Configure Instance Details page as below:



Step 3: Configure Instance Details

Purchasing option Request Spot instances

Network vpc-c5cd1cbd (default)

Subnet No preference (default subnet in any Availability Zone)

Auto-assign Public IP Use subnet setting (Enable)

Placement group Add instance to placement group

Capacity Reservation Open

IAM role None

Shutdown behavior Stop

Enable termination protection Protect against accidental termination

Monitoring Enable CloudWatch detailed monitoring Additional charges apply.

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

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Leave everything as default on Add Storage screen as below:

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	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda	snap-090e486676f0b5b53	8	General Purpose SSD (gp2)	100	100 / 3000	N/A	<input checked="" type="checkbox"/> Not Encrypted

[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](#)

[Feedback](#) [English \(US\)](#)

Add the name tag on Add tags screen as below:



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	Volumes
name		docker_host		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[Add another tag](#) (Up to 50 tags maximum)

Cancel **Previous** **Review and Launch** **Next: Configure Security Group**

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On Configure Security Group screen, add rule for HTTP traffic as below and rename security group to docker_security_group as below:

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: docker_security_group

Description: security group for docker host

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

[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**

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Click on Launch and create a new key-pair as below:

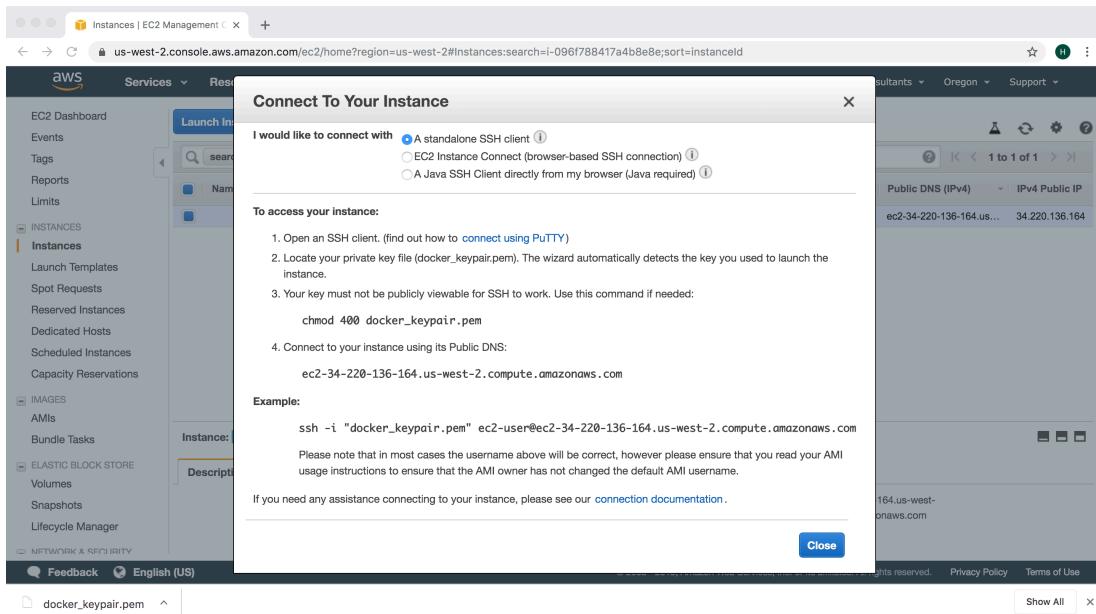


Download key pair and click on Launch Instance.



SSH Into EC2 Instance

Use the commands as shown below on your ssh client to access ec2 instance.



SSH Client screen:

Go to the directory where you saved .pem file and change its permissions and then access ec2 instance using commands as shown in below screen.

```
aws — ec2-user@ip-172-31-34-216:~ — ssh -i docker_keypair.pem ec2-user@ec2-34-220...
credentials (1).csv
credentials.csv
docker_keypair.pem
ebook-cloud-transformation-principles.pdf
serverless
whitepaper-streaming-data-solutions-on-aws-with-amazon-kinesis.pdf
[MacBook-Pro:aws hirendossani$ chmod 400 docker_keypair.pem
[MacBook-Pro:aws hirendossani$ ssh -i docker_keypair.pem ec2-user@ec2-34-220-136-
164.us-west-2.compute.amazonaws.com
The authenticity of host 'ec2-34-220-136-164.us-west-2.compute.amazonaws.com (34
.220.136.164)' can't be established.
ECDSA key fingerprint is SHA256:MbKHYSTtx1Joo379Zk8B1PMN1vs17eSGQzAwGqRy0kI.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'ec2-34-220-136-164.us-west-2.compute.amazonaws.com,3
4.220.136.164' (ECDSA) to the list of known hosts.

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

https://aws.amazon.com/amazon-linux-2/
15 package(s) needed for security, out of 31 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-34-216 ~]$
```



Install Docker In EC2

In EC2, run below command:

sudo yum update

After updates are done, install Docker CE using below command:

sudo yum install docker -y

Check docker service status using below command:

sudo service docker status

Start docker service :

sudo service docker start

Add ec2-user to docker group

sudo usermod -a -G docker ec2-user

Reboot the instance

sudo reboot

Start docker service

sudo service docker start

Verify docker images

docker images