

## Step 1: Launch an EC2 Instance in the US-East-1 (N. Virginia) Region

### 1. Log in to AWS Management Console:

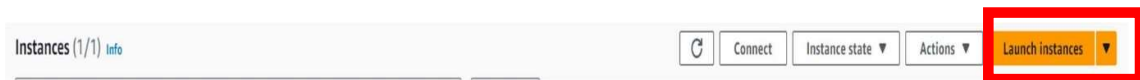
- Go to the AWS Management Console at [AWS Console](#).
- Sign in with your AWS credentials.

### 2. Navigate to EC2 Dashboard:

- In the AWS Management Console, type "EC2" in the search bar and select EC2 to navigate to the EC2 Dashboard.

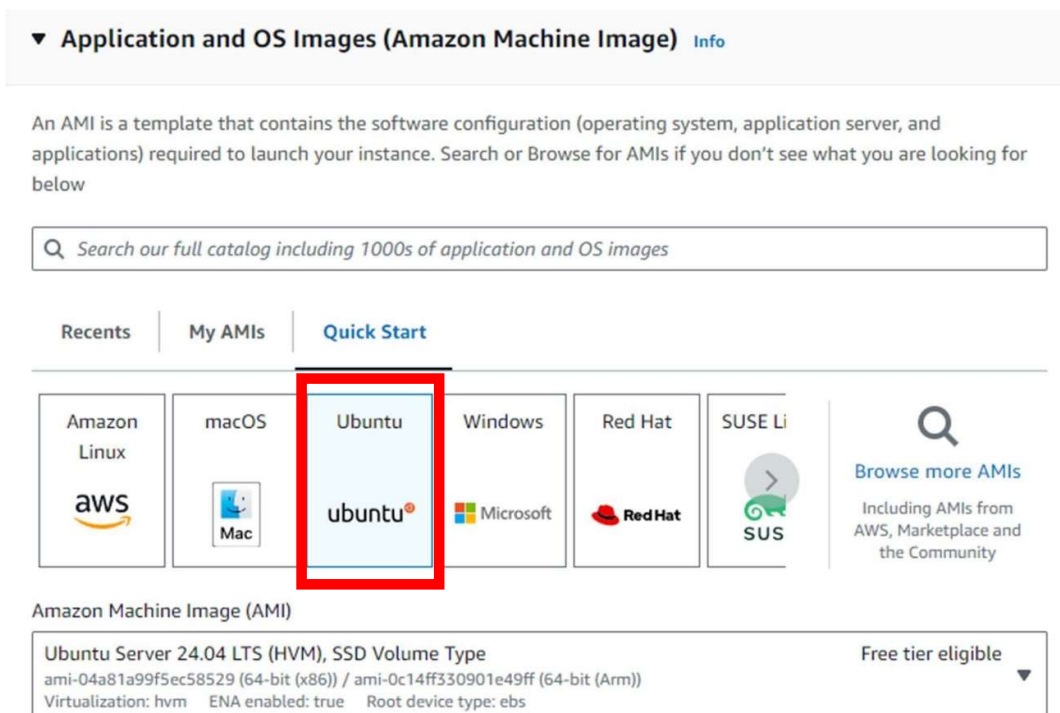
### 3. Launch an Instance:

- Click on the "Launch Instance" button.



- **Choose an Amazon Machine Image (AMI):**

- Select "Ubuntu Server 20.04 LTS (HVM) SSD Volume Type" or a suitable Linux AMI for your use case.



- **Choose an Instance Type:**

- Select t2.micro (eligible for the free tier).

▼ **Instance type** [Info](#) | [Get advice](#)

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Windows base pricing: 0.0162 USD per Hour  
On-Demand SUSE base pricing: 0.0116 USD per Hour  
On-Demand RHEL base pricing: 0.026 USD per Hour  
On-Demand Linux base pricing: 0.0116 USD per Hour

Free tier eligible

☐ All generations  
[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

- **Configure Instance:**
  - Select an existing key pair or create a new one.
  - Network: Choose the default VPC.
  - Subnet: Choose a subnet in the US-East-1 (N. Virginia) region.
  - Enable Auto-assign Public IP.
- **Add Storage:** Keep the default settings.
- **Add Tags:** Add a tag to identify your instance (e.g., Key: Name, Value: Nginx).
- **Review and Launch:** Review your instance settings and click "Launch".

▼ **Network settings** [Info](#)

Edit

Network [Info](#)

vpc-01f4dd0a574fc4267

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

Additional charges apply when outside of free tier allowance

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-2' with the following rules:

☒ Allow SSH traffic from 

Anywhere  
0.0.0.0/0

Helps you connect to your instance

☐ 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

**Step 2: Replicate the Instance in the US-West-2 (Oregon) Region**

## 1. Create an AMI:

- After your instance is up and running in US-East-1, go to the EC2 Dashboard, right-click on the instance, and select "Create Image".
- Specify details and create the AMI.

The screenshot shows the AWS Management Console. At the top, the 'Instances (1/1)' page is displayed. A table lists one instance: 'Server' with ID 'i-0ce21849bb3e580a5', state 'Running', and type 't2.micro'. The 'Actions' menu is open, and 'Create image' is selected. Below this, the 'Amazon Machine Images (AMIs) (1)' page is shown. A table lists the newly created AMI: 'Server' with ID 'ami-0eab58e3310a674f8', source '016877529802/Server', and owner '016877529802'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm
Server	i-0ce21849bb3e580a5	Running	t2.micro	Initializing	View a

**i-0ce21849bb3e580a5 (Server)**

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Name	AMI name	AMI ID	Source	Owner	Visit
Server	ami-0eab58e3310a674f8	016877529802/Server	016877529802	Priv	

## 2. Copy the AMI to US-West-2:


- In the AMI section, select the newly created AMI.

The screenshot shows the 'Amazon Machine Images (AMIs) (1/1)' page. The table lists the AMI 'Server' with ID 'ami-0eab58e3310a674f8'. The 'Actions' menu is open, and 'Copy AMI' is selected.

Name	AMI name	AMI ID	Source
Server	ami-0eab58e3310a674f8	016877529802/Server	

- Right-click the AMI, select "Copy AMI," and choose US-West-2 (Oregon).

### Copy Amazon Machine Image (AMI)

Original AMI ID  
 [ami-0eab58e3310a674f8](#)

AMI copy name

AMI copy description

Destination Region  
A copy of the original AMI will be created in the destination Region.

☐ Copy tags  
Includes your user-defined AMI tags when copying the AMI.

☐ Encrypt EBS snapshots of AMI copy  
Encrypts all snapshots in the AMI copy with the same key.

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.

☒ Tag image and snapshots together  
Tag the image and the snapshots with the same tag.

☐ Tag image and snapshots separately  
Tag the image and the snapshots with different tags.

### 3. Launch a New Instance:

- Once the AMI is copied to the US-West-2 region, navigate to the EC2 Dashboard in that region.
- Launch a new instance using the copied AMI.

### Step 3: Create and Attach Two EBS Volumes in US-East-1

#### 1. Create EBS Volumes:

- In the EC2 Dashboard for US-East-1, navigate to the "Volumes" section under "Elastic Block Store."
- Click "Create Volume" and specify the size, type, and availability zone (make sure it matches your instance's availability zone).
- Create two EBS volumes.

#### 2. Attach Volumes:

- After creation, right-click each volume and select "Attach Volume."
- Attach both volumes to your EC2 instance.

### Step 4: Delete One Volume and Extend the Size of the Other

#### 1. Detach and Delete a Volume:

- In the EC2 Dashboard, right-click the volume, select "Detach Volume," and then "Delete Volume."

**2. Extend the Remaining Volume:**

- Right-click the remaining volume, select "Modify Volume," and specify the new size.
- Confirm the modification.

**Step 5: Backup the EBS Volume**

**1. Create a Snapshot:**

- Go to the "Volumes" section under "Elastic Block Store."
- Right-click the volume you wish to back up and select "Create Snapshot."
- Provide a name and description for the snapshot and click "Create Snapshot."