

Step 1: assign the tag a name

The screenshot shows the AWS EC2 'Launch an instance' wizard. On the left, there's a sidebar with tabs like 'Details', 'AWS', 'Start Lab', 'End Lab', 'Instructions', and 'Actions'. Below that is a dropdown menu set to 'EN_US'. The main area has a title 'Step 1: Name and tags'. A note says: '7. Give the instance the name web_server.' Below it, a detailed note explains that the name will be stored as a tag and can categorize resources by purpose, owner, or environment. To the right, the 'Name and tags' section is shown with a 'Name' field containing 'Web Server'. There's also a link to 'Add additional tags'.

Step 2: Choosing AMI – a template to create the EC2 instance

The screenshot shows the AWS Quick Start interface under the 'Quick Start' tab. It features a grid of AMI icons: Amazon Linux, macOS, Ubuntu, Windows, and Red Hat. To the right is a search bar with the placeholder 'Browse more AMIs' and a note about including AMIs from AWS Marketplace and the Community. Below the grid, a section for 'Amazon Machine Image (AMI)' is expanded, showing details for 'Amazon Linux 2023 AMI':
- AMI ID: ami-04cb4ca688797756f (64-bit (x86)) / ami-06f9c0b2ce386ddda7 (64-bit (Arm))
- Virtualization: hvm
- ENA enabled: true
- Root device type: ebs
The 'Free tier eligible' status is indicated with a dropdown arrow. At the bottom, sections for 'Description' (Amazon Linux 2023 AMI 2023.1.20230912.0 x86_64 HVM kernel-6.1) and 'Architecture' (64-bit (x86)) are shown, along with an 'AMI ID' (ami-04cb4ca688797756f) and a 'Verified provider' badge.

Step 3: Choose the spec of our EC2 instance, in these case t2.micro as instructed

▼ Instance type [Info](#)

Instance type

t2.micro	Free tier eligible	
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: 0.0716 USD per Hour		
On-Demand Linux base pricing: 0.0116 USD per Hour		

All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

Step 4: Choosing Key pair – a password to access our EC2 instance

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

 [Create new key pair](#)

Step 5: Choose the network configuration

VPC - required Info

vpc-0878186f5ae97e47a (Lab VPC)
10.0.0.0/16

Subnet Info

subnet-01a6c4eac9136f5b2 Public Subnet 2
VPC: vpc-0878186f5ae97e47a Owner: 646605228544 Availability Zone: us-east-1b IP addresses available: 251 CIDR: 10.0.2.0/24

Create new subnet

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

Security group name - required

Web Server Security group

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-:/()#,@[]+=&;!\$*

Description - required Info

Security group for my web server

Inbound Security Group Rules

No security group rules are currently included in this template. Add a new rule to include it in the launch template.

Add security group rule

► Advanced network configuration

Step 6: Choose the size of the storage

ACFv2EN-55083
Lab 3 - Introduction to Amazon EC2

Details AWS Start Lab End Lab 1:40 Instructions Actions

Files README Terminal Source

EN_US rule.

Step 6: Configure storage

15. In the *Configure storage* section, keep the default settings.

Amazon EC2 stores data on a network-attached virtual disk called *Elastic Block Store*. You will launch the Amazon EC2 instance using a default 8 GB disk volume. This will be your root volume (also known as a 'boot' volume).

Configure storage Info

1x 8 GiB gp3 Root volume
(Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

Add new volume

0 x File systems

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Step 7: Turn on termination protection so accidental termination don't happen and install a hello word program

Termination protection [Info](#)

Enable

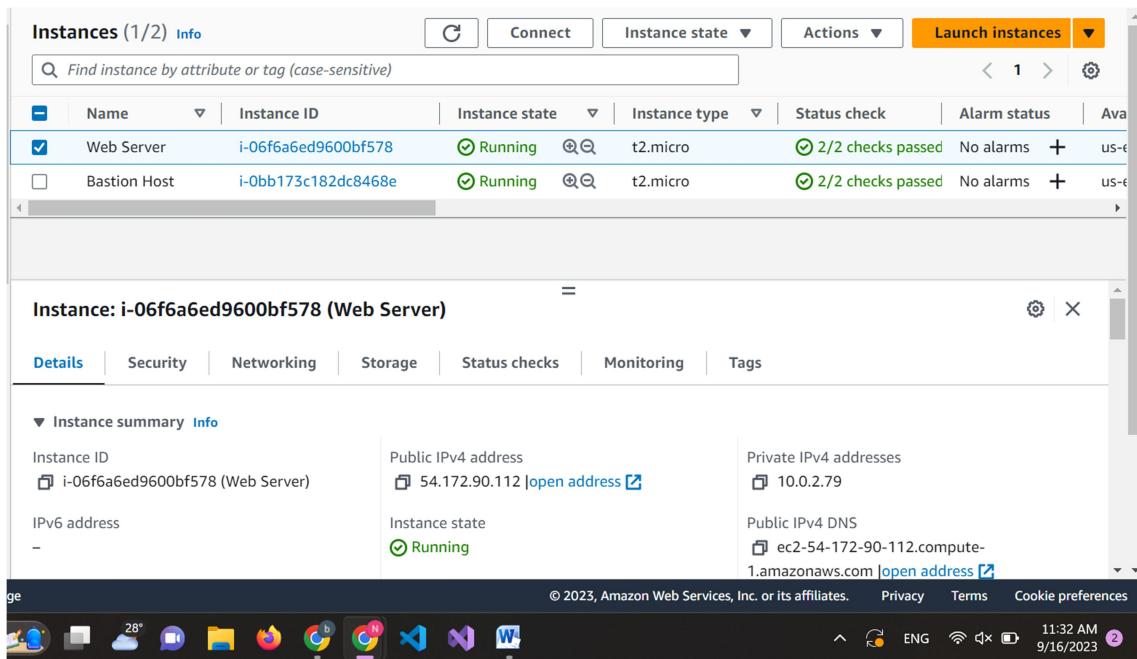
User data - optional [Info](#)

Upload a file with your user data or enter it in the field.

 Choose file

```
#!/bin/bash
dnf install -y httpd
systemctl enable httpd
systemctl start httpd
echo '<html><h1>Hello From Your Web Server!</h1></html>' >
/var/www/html/index.html
```

Step 8: Launch instance name “Web server” successfully



The screenshot shows the AWS CloudWatch Metrics interface. At the top, there's a search bar and a navigation menu with options like 'Metrics', 'Logs', 'CloudWatch Metrics', 'CloudWatch Metrics Insights', and 'CloudWatch Metrics Dashboards'. Below the menu, a table lists metrics with columns for 'Metric Name', 'Unit', 'Value', 'Timestamp', and 'Dimensions'. One row is selected, showing 'CPU' as the metric name, 'Percent' as the unit, '100' as the value, and a timestamp of '2023-09-16T11:32:00Z'. The dimensions are listed as 'InstanceId: i-06f6a6ed9600bf578'. The table has a header row with filters for 'Metric Name', 'Unit', 'Value', 'Timestamp', and 'Dimensions'.

Step 9: View system log

The screenshot shows the AWS CloudWatch Logs interface for an EC2 instance. The title bar reads "Get system log | EC2 | us-east-1". The URL is "us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#GetSystemLog:instanceId=i-06f6a6ed9600bf578". The left sidebar shows navigation links for EC2 Dashboard, EC2 Global View, Events, Instances, Images, and various EC2 service links like CloudShell, Feedback, Language, and CloudWatch Metrics. The main content area is titled "System log" and displays the log entries for instance i-06f6a6ed9600bf578 from Saturday, September 16, 2023, at 11:35:23 GMT+0700 (Indochina Time). The log output includes several messages related to cloud-init and systemd-sysv-generator, indicating missing native systemd unit files and prompting for updates. There are buttons for Copy log and Download.

Step 10: Instance screenshot

The screenshot shows the AWS CloudWatch Metrics interface for an EC2 instance. The title bar reads "Get instance screenshot | EC2 | us-east-1". The URL is "us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#GetInstanceScreenshot:instanceId=i-06f6a6ed9600bf578". The left sidebar shows navigation links for EC2 Dashboard, EC2 Global View, Events, Instances, Images, and various EC2 service links like CloudShell, Feedback, Language, and CloudWatch Metrics. The main content area is titled "Instance screenshot" and displays a screenshot of the Amazon Linux 2023 terminal session for instance i-06f6a6ed9600bf578, captured on 2023-09-16 at 11:38:31.551 +07:00. The terminal output shows the login process and a warning message about missing native systemd unit files for the /etc/rc.d/init.d/cfn-hup service. There are buttons for Copy and Download.

Step 11: Configure security rule

The screenshot shows the AWS EC2 Security Groups console. The URL is us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyInboundSecurityGroupRules:securityGroupId=sg-07e3db595fc6d6cf0. The page title is "Edit inbound rules". The "Inbound rules" section shows one existing rule: "HTTP" (Type), "TCP" (Protocol), "80" (Port range), "Anywhere (0.0.0.0/0)" (Source). A new rule is being added with the source set to "0.0.0.0/0". At the bottom, there are "Cancel", "Preview changes", and "Save rules" buttons, with "Save rules" being highlighted.

Step 12: Successfully update security rule to access web server

The screenshot shows a browser window with multiple tabs open. The active tab is "EC2 | us-east-1" with the URL awsacademy.instructure.com/courses/55083/m.... The main content area displays the message "Hello From Your Web Server!". Below it, a task titled "Task 3: Update Your Security Group and Access the Web Server" is shown. The task instructions state: "When you launched the EC2 instance, you provided a script that installed a web server and created a simple web page. In this task, you will access content from the web server." The browser address bar shows "Not secure | 54.172.90.112". The system tray at the bottom indicates the date and time as 9/16/2023 11:43 AM.

Step 13: Testing stop instance

The screenshot shows the AWS EC2 Instances page. A modal window at the top center says "Successfully stopped i-06f6a6ed9600bf578". The main table lists two instances: "Web Server" (i-06f6a6ed9600bf578) which is "Stopping" and "Bastion Host" (i-0bb173c182dc8468e) which is "Running". The "Actions" dropdown menu for the Web Server instance has "Stop" selected. The status bar at the bottom right shows "11:45 AM 9/16/2023".

Step 14: Change instance type

The screenshot shows the AWS EC2 Instances page. A modal window at the top center says "Instance type changed successfully". The main table lists two instances: "Web Server" (i-06f6a6ed9600bf578) which is "Stopped" and "t2.small" and "Bastion Host" (i-0bb173c182dc8468e) which is "Running" and "t2.micro". The status bar at the bottom right shows "11:47 AM 9/16/2023".

Step 15: Change disk size

The screenshot shows the AWS EC2 Volumes page. The left sidebar includes links for EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images (AMIs). The main content area displays a table titled "Volumes (2) Info" with columns: Name, Volume ID, Type, Size, IOPS, Throughput, and Snapshot. Two volumes are listed:

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot
-	vol-0c6cdc0f0684e641e	gp3	10 GiB	3000	125	snap-070e355...
-	vol-0bf6559405f99f6ba	gp3	8 GiB	3000	125	snap-070e355...

A modal window titled "Select a volume above" is open at the bottom of the page.

Step 16: Start instance again

The screenshot shows the AWS EC2 Instances page. The left sidebar includes links for EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images (AMIs). The main content area displays a table titled "Instances (2) Info" with columns: Name, Instance ID, Instance state, Instance type, Status check, and Alarm status. Two instances are listed:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
Web Server	i-06f6a6ed9600bf578	Running	t2.small	Initializing	No alarms
Bastion Host	i-0bb173c182dc8468e	Running	t2.micro	2/2 checks passed	No alarms

A modal window titled "Select an instance" is open at the bottom of the page.

Step 17: Check termination protection

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed. The main area displays two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
Web Server	i-06f6a6ed9600bf578	Terminated	t2.small	-	No alarms
Bastion Host	i-0bb173c182dc8468e	Running	t2.micro	2/2 checks passed	No alarms

A prominent red error message at the top states: "Failed to terminate an instance: The instance 'i-06f6a6ed9600bf578' may not be terminated. Modify its 'disableApiTermination' instance attribute and try again."

Step 18: Terminated instance successfully after removing termination protection

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed. The main area displays two instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
Web Server	i-06f6a6ed9600bf578	Running	t2.small	-	No alarms
Bastion Host	i-0bb173c182dc8468e	Running	t2.micro	2/2 checks passed	No alarms

The "Select an instance" dialog is open at the bottom of the screen.

Step 19: End the lab

