

# How to create a new AWS ec2 Instance on Amazon Cloud

*Learn the steps to create, launch and connect Amazon ec2 Instance from your browser to use various virtual machines based on Linux or Windows such as Ubuntu, CentOS, Amazon Linux, RHEL, Windows server, and more...*

## **What is Elastic Compute Cloud or EC2?**

Elastic Compute Cloud or EC2 is a cloud computing service offered by Amazon Web Services (AWS) from the Infrastructure as a Service (IaaS) segment. It allows users to run an unlimited number of virtual machines with various features including scalability.

To get the benefits of the EC2 service, we first need to create a virtual machine using pre-built Amazon Machine Image (AMI) of various operating systems available there. Alternatively, we can use Linux or Windows Images with the pre-configured applications, for example, CentOS with pre-installed WHM Cpanel. After creation, the AMI is uploaded to the Simple Storage Service (S3) and registered using EC2. The system then generates an AMI identifier or AMI ID. Despite its complexity, EC2 is easy to use. The service can be used immediately with a preconfigured image. However, you can also create your own AMI.

Furthermore, EC2 not only provides tailor-made virtual machines, but is also very flexible when it comes to choosing between different operating systems, application packages, and instance types. It provides full control and root access over each server instance. Whereas, the company also guarantees one hundred percent availability for each of its regions.

## **Steps to create Amazon ec2 Instance Linux or Windows**

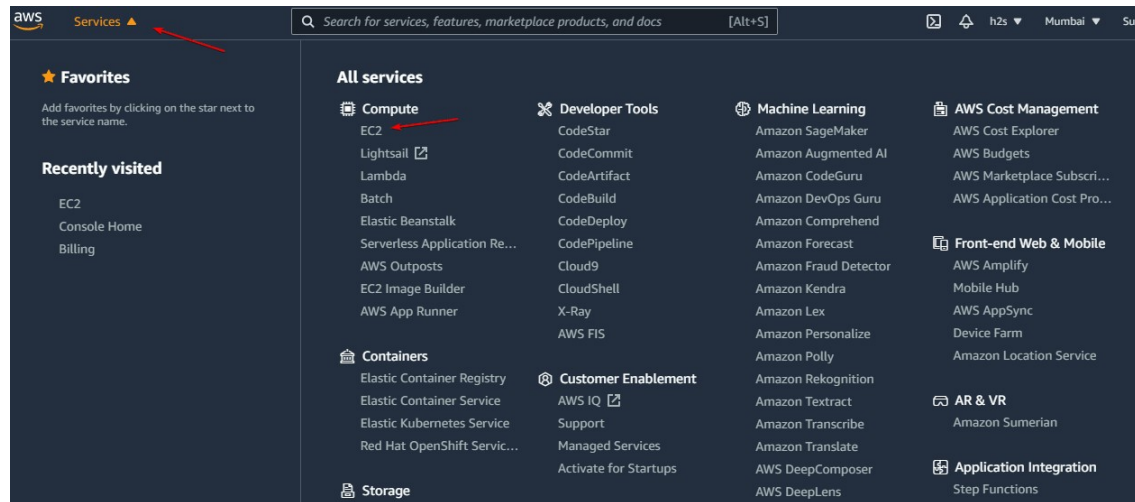
### **1. login or Sign up for an AWS account**

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If you already have the AWS account, log in to it, or else if you are a **new user** then visit the [AWS signup page](#) and create a new Aws account. Once you have created a new account or **logged** in successfully moved to the next step.

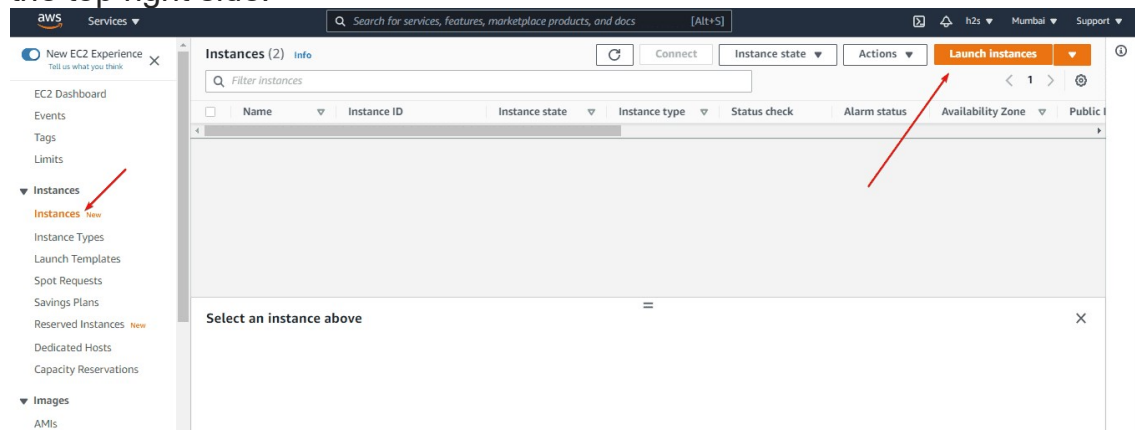
## 2. Go to ec2 Dashboard

After log in to your AWS account you will see the AWS Management Console. On the left top side, click on the **Service** drop Menu to select **EC2**.



## 3. Launch a new Amazon Ec2 Instance

Once you are on the AWS ec2 Dashboard, click on the “**Instances**” option given on the left side. And then hit the “**Launch Instances**” button given on the top right side.



## 4. Choose an Amazon Machine Image (AMI)

On the next page, you will see a list of Virtual Images available to launch on **Amazon ec2**. Select one of your choices such as Amazon Linux, Ubuntu, Red Hat, OpenSUSE, Windows, and more... Once you are sure which AMI you want to use, click on the “**Select**” button given at the front of that particular Amazon machine Image.

**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

- My AMIs
- AWS Marketplace
- Community AMIs
- ☐ Free tier only

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-04db49c0fb2215364 (64-bit x86) / ami-0086e63bfa9c3b49 (64-bit Arm)

Amazon Linux comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-06a0b4e3b7eb7a300 (64-bit x86) / ami-0cbe04a3ce796c98e (64-bit Arm)

Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-0b3act3edf2397475 (64-bit x86) / ami-0ab71076ab9b53b0d (64-bit Arm)

SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Amazon EC2 AMI Tools preinstalled, Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

## 5. Choose Instance Type

Amazon Ec2 service offers a wide range of virtual hardware or Instances to run the selected Machine Image. If you want are using the **Free tier** then let the default one be selected. Or else go for the one (CPU & Memory) that suits the application you are planning to install on your AMI Instance.

After selecting the Instance Type, click on the **“Review and Launch”** button.

**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.

Filter by:

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GiB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes

Cancel Previous **Review and Launch** Next: Configure Instance Details

## 6. Review Instance Launch

Finally, once again you will see all the details along with storage and security attached to your Ec2 Instance. Those who would like to change anything can simply click on the **Edit** option given in front of each Setting or Details.

Well, you can go with the **default settings** because we can change the theme later. Hence, simply click on the **“Launch”** button.

Step 7: Review Instance Launch

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

AMI Details

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-04db49c0fb2215364

Free tier eligible

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, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is a...

Root Device Type: ebs Virtualization type: hvm

Instance Type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

Security Groups

Security group name: launch-wizard-3  
Description: launch-wizard-3 created 2021-08-31T13:29:36.028+05:30

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	0.0.0.0/0	

Cancel Previous **Launch**

## 7. Create a new Key Pair (important)

Don't **skip** this step if you want to connect your Instance remotely using any PC or laptop via SSH protocol.

- From the drop-down box, select the **“Create a new key pair”** option and then give some name to your KEY.
- After that click on the **“Download Key Pair”** button and save the key on your system somewhere safe so that it would not fall in the wrong hands.
- Finally, hit the **“Launch Instance”** button.

## Select an existing key pair or create a new key pair ×

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

**Key pair type**  
☒ RSA ☐ ED25519

**Key pair name**

Download Key Pair

You have to download the **private key file** (\*.pem file) before you can continue. Store it in a secure and accessible location. You will not be able to download the file again after it's created.

Cancel

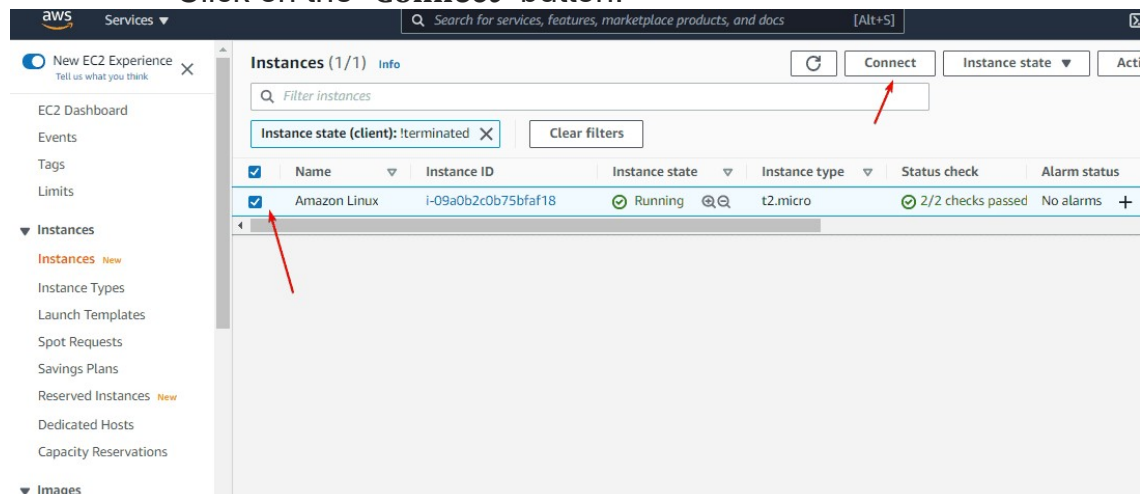
Launch Instances

## 8. Connect to your Amazon Ec2 Instance

There are two ways to connect the command-line interface with root access of your created Instance. One is via using the inbuilt **Web console of Ec2** and the other is using your **local machine via SSH**.

Well, here we show how to use the web console;

- Select the **Created Instance**
- Click on the **"Connect"** button.



- Under “Ec2 Instance Connect” click the “Connect” button.

The screenshot shows the AWS Management Console interface for connecting to an EC2 instance. The breadcrumb navigation at the top indicates the path: EC2 > Instances > i-09a0b2c0b75bfaf18 > Connect to instance. The main heading is 'Connect to instance' with an 'Info' link. Below this, a sub-header states: 'Connect to your instance i-09a0b2c0b75bfaf18 (Amazon Linux) using any of these options'. There are four tabs: 'EC2 Instance Connect' (selected), 'Session Manager', 'SSH client', and 'EC2 Serial Console'. Under the 'EC2 Instance Connect' tab, the following information is displayed: Instance ID 'i-09a0b2c0b75bfaf18 (Amazon Linux)', Public IP address '52.66.209.29', and a 'User name' input field containing 'ec2-user'. A note below the input field states: 'Connect using a custom user name, or use the default user name ec2-user for the AMI used to launch the instance.' A blue information box contains a note: '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.' At the bottom right, there are two buttons: 'Cancel' and 'Connect'. A red arrow points to the 'Connect' button.

You will now have the web-based terminal to issue commands to your created Instance. In this way, we can create and connect as many as instances we want.



```
← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-09a0b2c0b75bfaf18
Last login: Tue Aug 31 07:47:23 2021 from ec2-13-233-177-0.ap-south-1.compute.amazonaws.com

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 _| ( _|_ /   Amazon Linux 2 AMI
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https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-42-39 ~]$
```

i-09a0b2c0b75bfaf18 (Amazon Linux)

Public IPs: 52.66.209.29   Private IPs: 172.31.42.39