# AWS Quick Start Guide: Launch a Linux Virtual Machine

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Welcome to the AWS Quick Start Guide: Launch a Linux Virtual Machine. Amazon Elastic Compute Cloud is the service you use to create and run virtual machines (VM), also known as instances. By completing the steps in this quick start guide, you will successfully launch a Linux VM on Amazon EC2 within the AWS Free Tier. You will also connect to the instance that you launch and then terminate the instance.

**Note**
To launch a Windows VM, see Getting Started with Amazon EC2 Windows Instances.

To complete this quick start guide, you must have an Amazon Web Services (AWS) account. When you sign up for AWS, your AWS account is automatically signed up for all services in AWS, including Amazon EC2. If you don't have an AWS account, use the following procedure to create one.

**To sign up for AWS**
2. Follow the online instructions.
   - Part of the sign-up procedure involves receiving a phone call and entering a verification code on the phone keypad.

This quick start guide includes the following topics:
- **Step 1: Launch an Amazon EC2 Instance** (p. 1)
- **Step 2: Connect to Your Amazon EC2 Instance** (p. 8)
- **Step 3: Clean Up Your Amazon EC2 Instance** (p. 12)

For more information about Amazon EC2, see the Amazon Elastic Compute Cloud documentation.

**Step 1: Launch an Amazon EC2 Instance**

This topic describes the steps of launching a new Linux EC2 instance. To launch a Windows instance, see Getting Started with Amazon EC2 Windows Instances.

Because this guide is intended to help you launch your first instance quickly, it does not describe all the available configuration options for EC2 instances. For more information about advanced options, see Launching an Instance.

**Important**
This quick start guide uses a new version of the AWS Management Console that is currently in preview release and is subject to change.

**To launch an EC2 instance**
1. Sign in to the preview version of the AWS Management Console.
2. Open the Amazon EC2 console by choosing EC2 under Compute.

   If you are using the Show All Services view, your screen looks like this:
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Step 1: Launch an Amazon EC2 Instance

If you are using the Show Categories view, your screen looks like this with Compute expanded:
3. From the Amazon EC2 dashboard, choose Launch Instance.
4. The Choose an Amazon Machine Image (AMI) page displays a list of basic configurations called Amazon Machine Images (AMIs) that serve as templates for your instance. Select the HVM edition of the Amazon Linux AMI. Notice that this configuration is marked Free tier eligible.
5. On the **Choose an Instance Type** page, choose **t2.micro** as the hardware configuration of your instance and **Review and Launch**.

**Note**
T2 instances, such as **t2.micro**, must be launched into a virtual private cloud (VPC). If you don’t have a VPC, you can let the wizard create one for you. For more information, see step 6 in **Launching an Instance**.
6. On the **Review Instance Launch** page, choose **Launch**.

**Note**

On the **Review Instance Launch** page, under **Security Groups**, you see that the wizard created and selected a security group for you. For the purposes of this quick start, no further action than what is described in step 6 above is necessary. For more information about how to create or configure a security group and define firewall rules for your instance, see step 9 in **Launching an Instance**.
7. In the **Select an existing key pair or create a new key pair** dialog box, choose **Create a new key pair**, enter a name for the key pair, and then choose **Download Key Pair**. This is the only chance for you to save the private key file, so be sure to download it. Save the private key file in a safe place. You can use `C:\user\yourusername\.ssh\myfirstkey.pem` if you are on a Windows machine, and `~/.ssh/myfirstkey.pem` if you are on a Mac or Linux machine. You need to provide the name of your key pair when you launch an instance, and the corresponding private key each time you connect to the instance.

**Note**
A key pair enables you to connect to a Linux instance through SSH. If you launch your instance without a key pair, then you can't connect to it. We recommend against choosing the **Proceed without a key pair** option.
When you are ready, select the acknowledgment check box, and then choose **Launch Instances**.

8. A confirmation page lets you know that your instance is launching. Choose **View Instances** to close the confirmation page and return to the console.

On the **Instances** page, you can view the status of your instance. It takes a short time for an instance to launch. When you launch an instance, its initial state is pending. After the instance starts, its state changes to running, and it receives a public DNS name. (If the **Public DNS** column is hidden, choose the **Show/Hide** icon.)

**Step 2: Connect to Your Amazon EC2 Instance**

Now that you have launched your EC2 instance, you can connect to it and use it the way that you’d use a computer sitting in front of you.

This topic describes the following ways of connecting to a Linux instance:

- Connect from Windows using PuTTY (p. 9)
- Connect from Mac or Linux Using an SSH Client (p. 10)
Connect from Windows using PuTTY

PuTTY uses .ppk files instead of .pem files. If you haven't already generated a .ppk file, do so now. For more information, see To prepare to connect to a Linux instance from Windows using PuTTY.

To connect using PuTTY

1. On the Start menu, choose All Programs, PuTTY, PuTTY.
2. In the Category pane, choose Session and complete the following fields:
   - For Host Name, enter ec2-user@public_dns_name.
     **Note**
     You can get the public DNS for your instance using the Amazon EC2 console. (If the Public DNS column is hidden, choose the Show/Hide icon.)
   - For Connection type, choose SSH.
   - For Port, ensure that the value is 22.

![PuTTY Configuration](image)

3. In the Category pane, choose Connection, SSH, and Auth. Complete the following:
   - Choose Browse, select the .ppk file that you generated for your key pair, and then choose Open.
   - Choose Open to start the PuTTY session.
4. If this is the first time you have connected to this instance, PuTTY displays a security alert dialog box that asks whether you trust the host you are connecting to. Choose Yes. A window opens and you are connected to your instance.

Connect from Mac or Linux Using an SSH Client

Your Mac or Linux computer most likely includes an SSH client by default. You can check for an SSH client by typing `ssh` at the command line. If your computer doesn't recognize the command, the OpenSSH project provides a free implementation of the full suite of SSH tools. For more information, go to http://www.openssh.org.

To connect using SSH

1. Open your command line shell and change the directory to the location of the private key file that you created when you launched the instance.

   Use the `chmod` command to make sure your private key file isn't publicly viewable. For example, if the name of your private key file is `my-key-pair.pem`, use the following command:

   `chmod 400 my-key-pair.pem`

2. Use the following SSH command to connect to the instance:

   `ssh -i /path/my-key-pair.pem ec2-user@public_dns_name`
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Connect Using Your Browser

Note
For this quick start, you used the Amazon Linux AMI for your instance, so the user name is ec2-user.

Note
You can get the public DNS for your instance using the Amazon EC2 console. (If the Public DNS column is hidden, choose the Show/Hide icon.)

Connect Using Your Browser

Using a browser is the fastest way to connect to your instance. It is recommended you use Firefox or Safari to complete the procedure below since Java is disabled in Chrome. If you don’t have Java already, you can contact your system administrator to get it installed, or follow the steps outlined in the following pages: Install Java and Enable Java in your web browser.

To connect using a browser

1. On the Amazon EC2 console, in the navigation pane, choose Instances.
2. Select the instance that you launched and choose Connect.

3. Choose A Java SSH client directly from my browser (Java required).
4. Amazon EC2 automatically detects the public DNS name of your instance and populates Public DNS for you. It also detects the key pair that you specified when you launched the instance. Complete the following, and then choose Launch SSH Client.
   - For User name, enter ec2-user.
   - For Private key path, enter the fully qualified path to your private key (.pem) file, including the key pair name, for example, C:\KeyPairs\my-key-pair.pem.
   - (Optional) Choose Store in browser cache to store the location of the private key in your browser cache. This enables Amazon EC2 to detect the location of the private key in subsequent browser sessions, until you clear your browser's cache.
5. If necessary, choose Yes to trust the certificate and Run to run the MindTerm client.

6. If this is your first time running MindTerm, a series of dialog boxes asks you to accept the license agreement, to confirm setup for your home directory, and to confirm setup of the known hosts directory.

7. A dialog box prompts you to add the host to your set of known hosts. If you do not want to store the host key information on your local computer, choose No.

8. A window opens and you are connected to your instance.

   **Note**
   
   If you chose No in the previous step, you see the following message, which is expected:
   "Verification of server key disabled in this session."

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**Step 3: Clean Up Your Amazon EC2 Instance**

After you are finished with the instance that you created for this quick start, you can clean up by terminating the instance.

Terminating an instance effectively deletes it because you can't reconnect to an instance after you've terminated it. This differs from stopping the instance; when you stop an instance, it is shut down and you are not billed for hourly usage or data transfer (but you are billed for any Amazon EBS volume storage).
Also, you can restart a stopped instance at any time. For more information about the differences between stopping and terminating an instance, see Stopping Instances.

To terminate an instance

1. In the Amazon EC2 console, on the Instances page, locate your instance.
2. Open the context (right-click) menu for the instance and choose Instance State, Terminate.
3. Choose Yes, Terminate when prompted for confirmation.

Amazon EC2 shuts down and terminates your instance. After your instance is terminated, it remains visible on the console for a short while, and then the entry is deleted.