

Create EC2 Instance

On this page, we will explain the creation of the **EC2** instance in **AWS**

- **AWS EC2** : here we will create an **EC2** instance in **AWS** using **Red Hat Enterprise Image**
- **connection** : we will explain **ssh connection**

Objectives

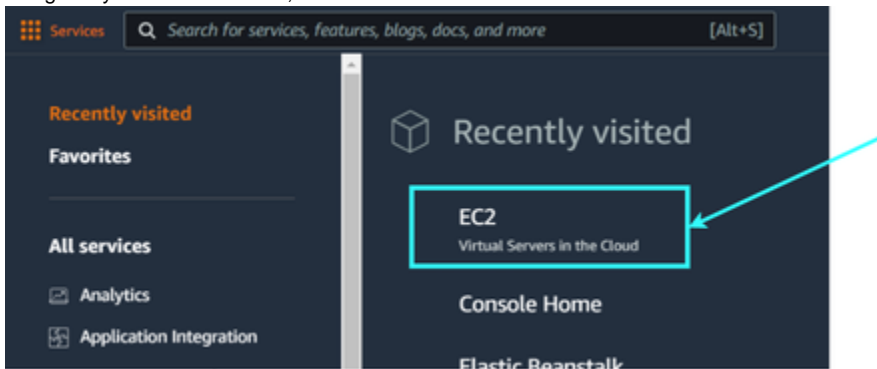
Facilitate the **EC2** instances creation in AWS.

Jobs we want to cover

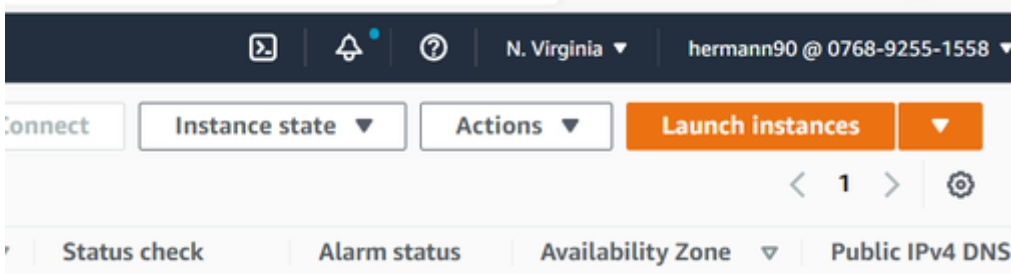
- When I am a DevOps engineer
- I want to quickly configure my EC2 instance

Step : create an **EC2** instance in **AWS** with the **Red Hat Enterprise** image

1- log into your **AWS account**, click on **Services** and select **EC2**

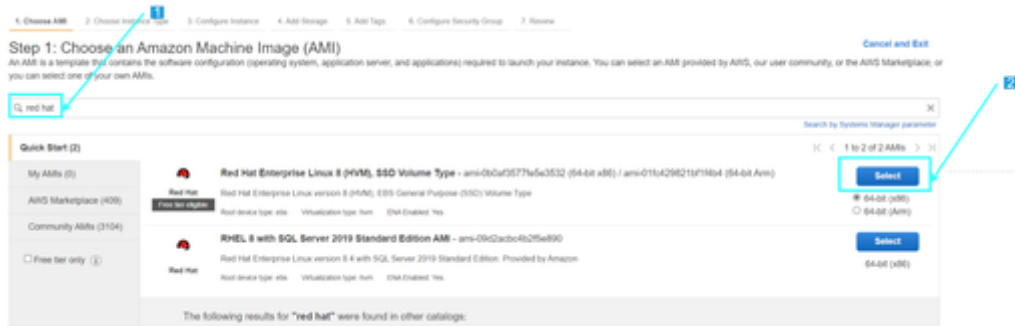


2- click on **Launch instances** for begin Red Hat installation.

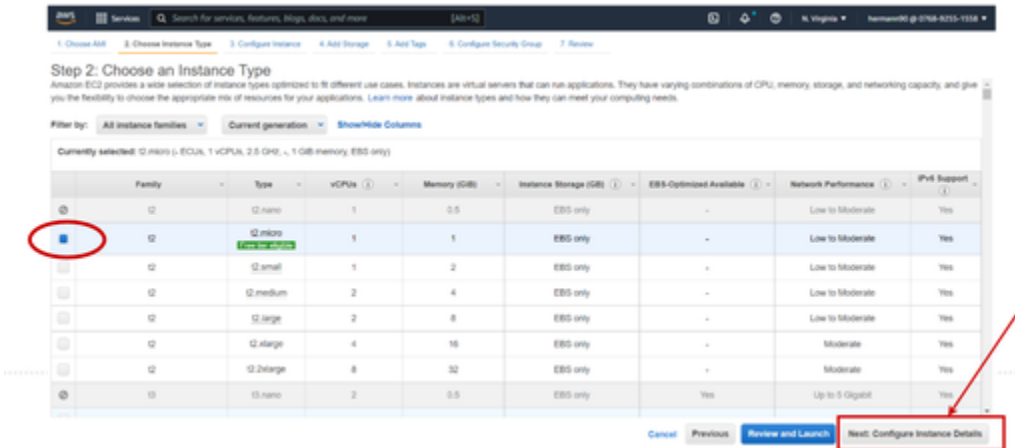


3- Here, let's perform these 2 actions :

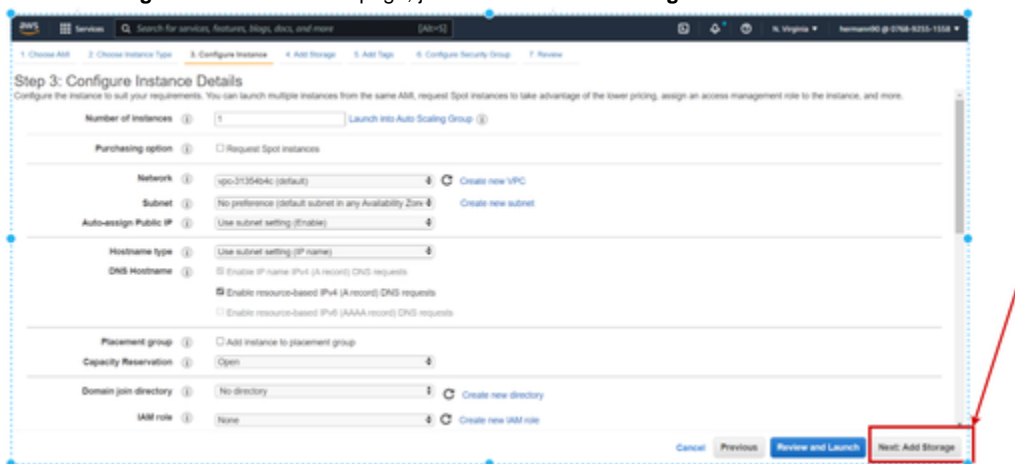
- **1-** enter **red hat** in the **search box** and then click enter to search for Red Hat OS available in AWS.
- **2-** - click on **Select** in 2 to choose Red Hat Enterprise Linux 8



4- Make sure that the line that is mark **free tier eligible** is checked, then click on **Next : configuration Instance Details**



5- in the **Configure Instance Details** page, just click **Next: Add Storage**



6- In this page too, nothing to add, just click on the **Next : Add Tags** button

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 (MiB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-03a3ad0056b4d17c	10	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

[Add New Volume](#)

Free tier eligible customers can get up to 30 GiB of EBS General Purpose (SSD) or Magnetic storage. [Learn more about free usage tier eligibility and usage restrictions.](#)

Shared file systems

You currently don't have any file systems on this instance. Select "Add file system" button below to add a file system.

[Add file system](#)

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

7- click on **Add tag**, then puts : key = **Name**, and value = **jenkins_host** the name of your server finally click on **Next: Config Security Group**

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	Network Interfaces
Name	jenkins_host	<input checked="" type="checkbox"/>	<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](#)

8- In the **security group**, we will add a rule to allow Jenkins to run on **Port 8080**. To do this, click on **Add Rules** to add this rule like in this following image, then click on **Review and Launch** button

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:

Description:

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom ... 0.0.0.0	e.g. SSH for Admin Desktop
Custom TCP	TCP	8080	Custom ... 0.0.0.0/0	e.g. SSH for Admin Desktop

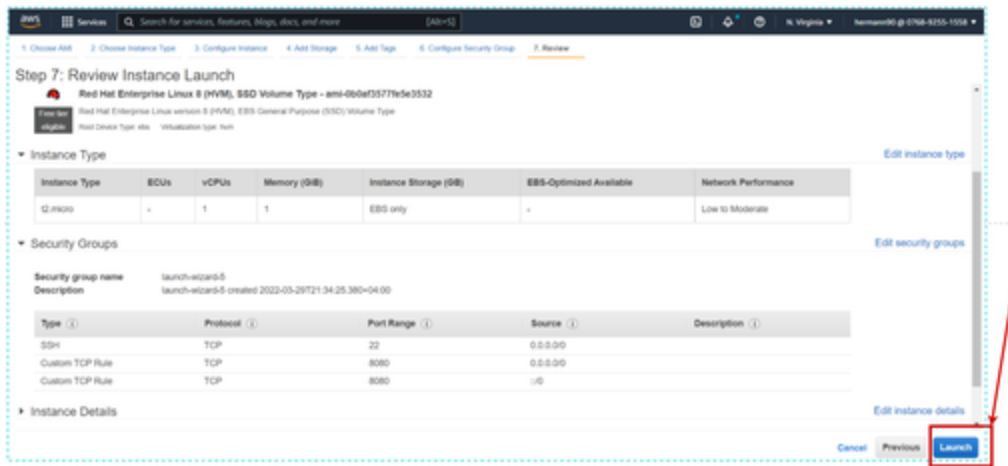
[Add Rule](#)

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.

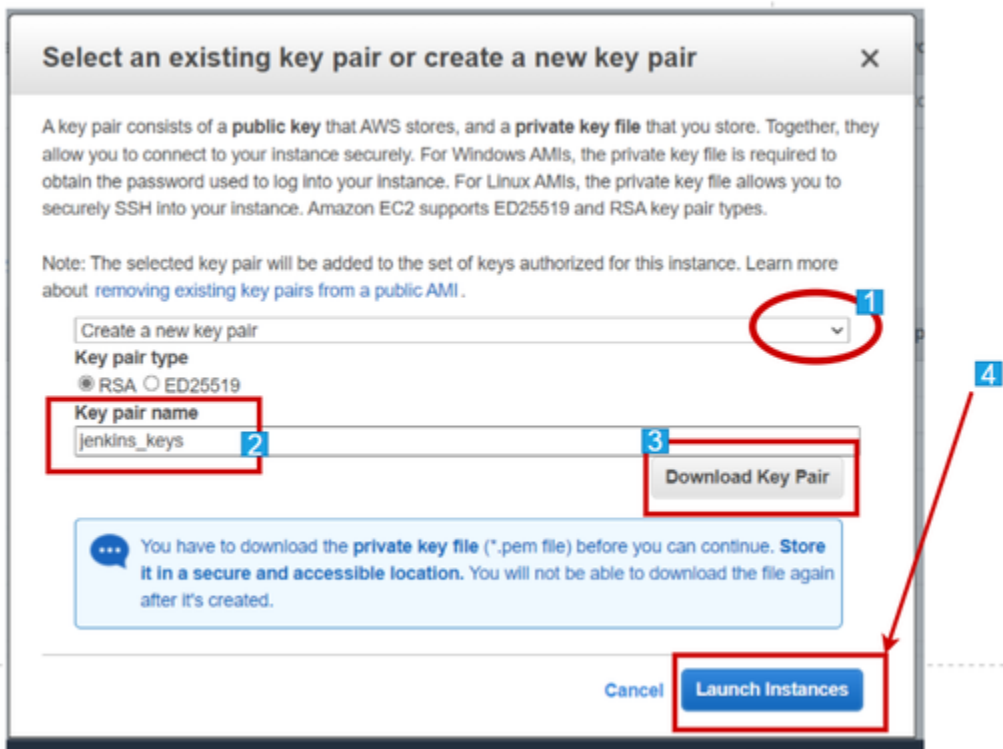
[Cancel](#) [Previous](#) [Review and Launch](#)

9- Here is what we have as a summary of our configurations. Just click on **Launch** to start our instance.

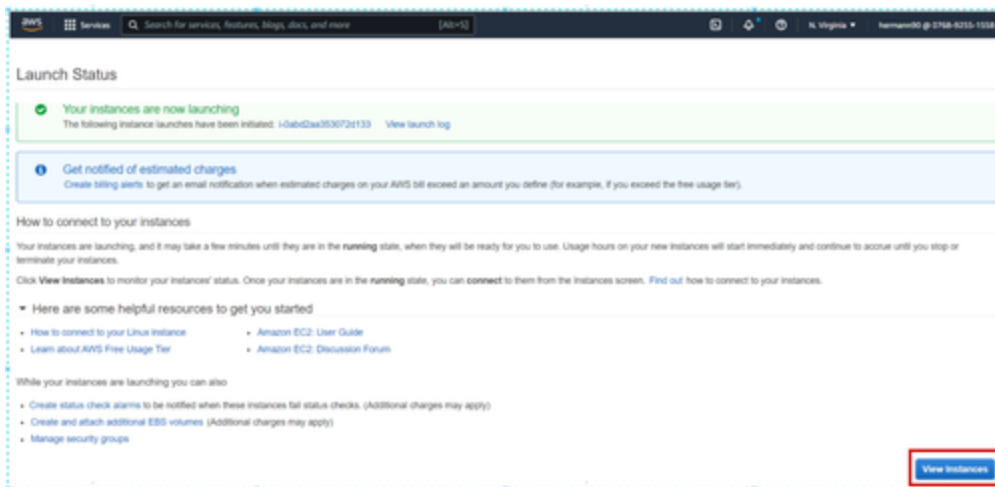


10- after clicking on **launch**, a window appears :

- a- In this window we will select in 1 **create a new key pair**,
- b- in 2, enter a name for this key (here, **jenkins_keys**).
- c- In 3, click on **Download Key Pair** to register this key in our machine,
- d- then in 4, click on the button **Launch Instances**.



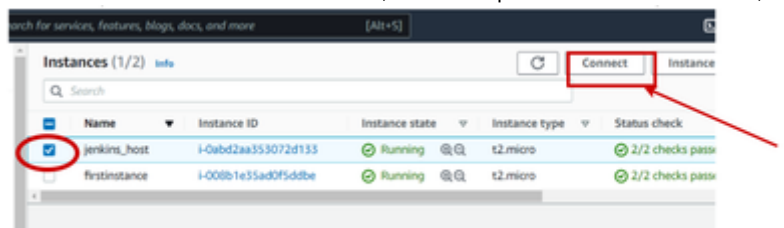
11- everything went well, you just have to click on **View instances**, to see our instances



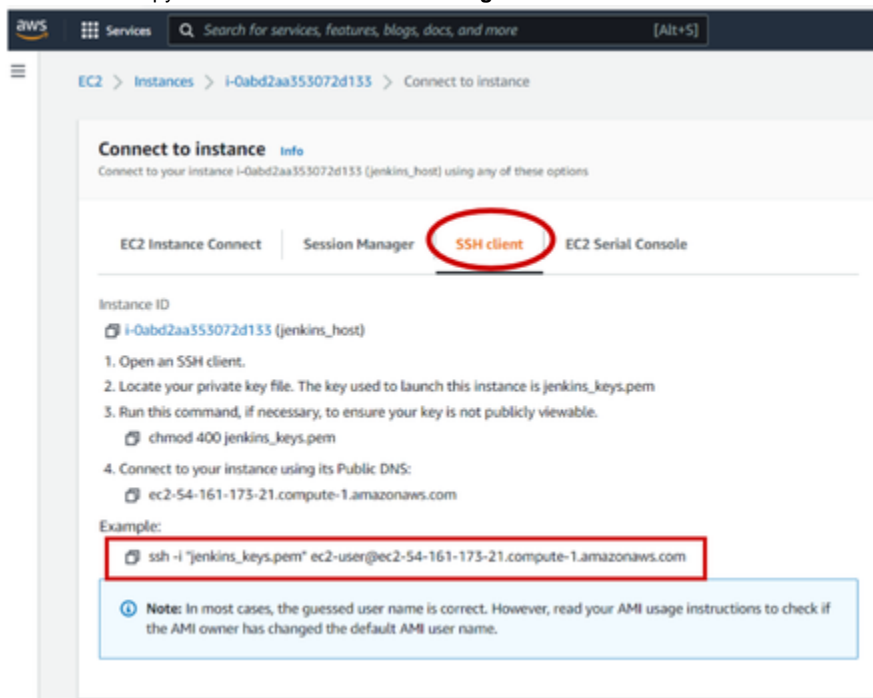
In this step, your EC2 instance are create 😊

12- ssh connections to the EC2 instance :

- for ssh connection to our server, the first step is to **select this instance**, then click on **connect**



- in the window that appears, make sure that **ssh client** is selected.
- then copy the line that is in the **red rectangle**.



- open the terminal, then make sure that you are in the folder where the key you downloaded is located. usually, it is in the **Download** folder.
- in the download folder of your machine, open the terminal, then paste this command, then hit **enter**.

```
▼ TERMINAL

PS C:\Users\hermann90\Downloads> ssh -i "jenkins_keys.pem" ec2-user@ec2-54-161-173-21.compute-1.amazonaws.com
The authenticity of host 'ec2-54-161-173-21.compute-1.amazonaws.com (54.161.173.21)' can't be established.
ECDSA key fingerprint is SHA256:TKMos1x0H0eF/wfx/u3+nGtwzNeAbFUdXnWmljcXfbo.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-161-173-21.compute-1.amazonaws.com,54.161.173.21' (ECDSA) to the list of known hosts.
[ec2-user@ip-172-31-82-14 ~]$
```

Congratulations on setting up an EC2 instance in AWS using the Red Hat Enterprise image 🎉🔥