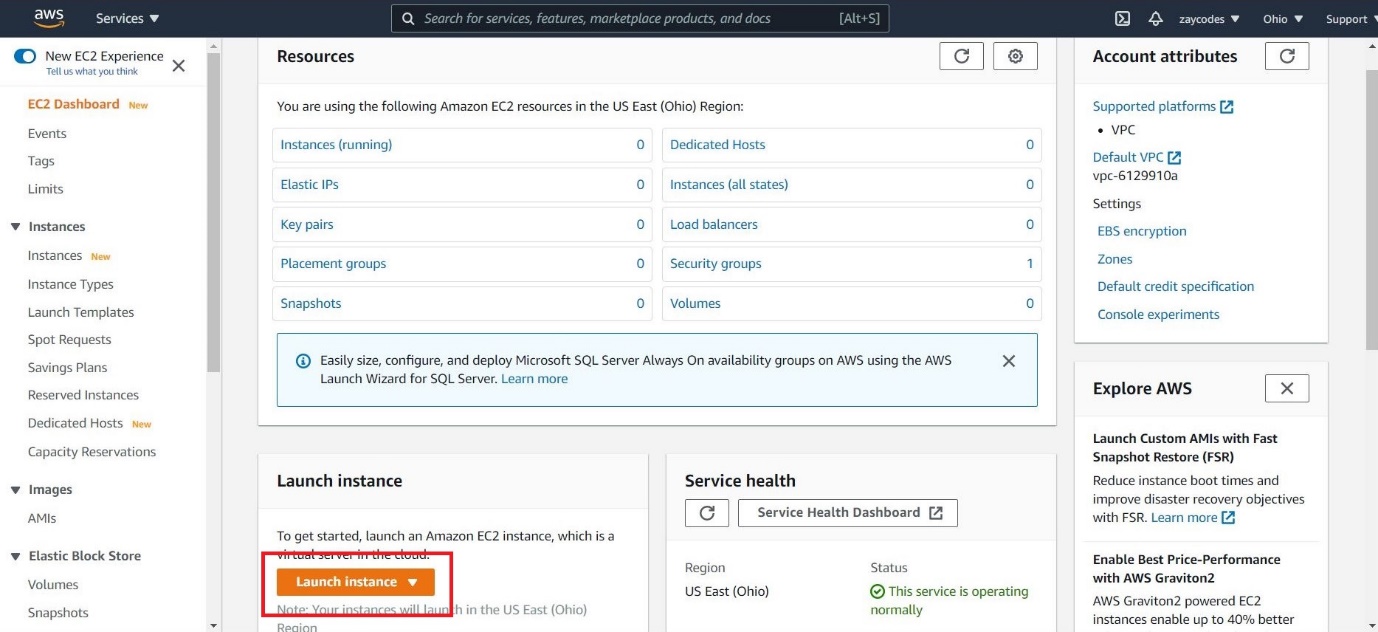
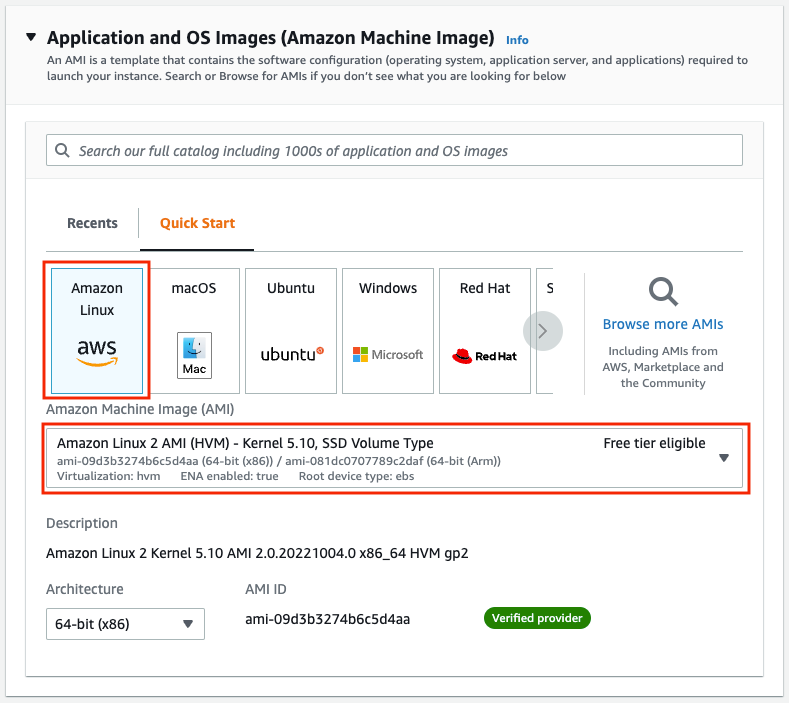
**Jenkins Installation on Amazon Linux EC2 Instance**

**Steps to Follow:**

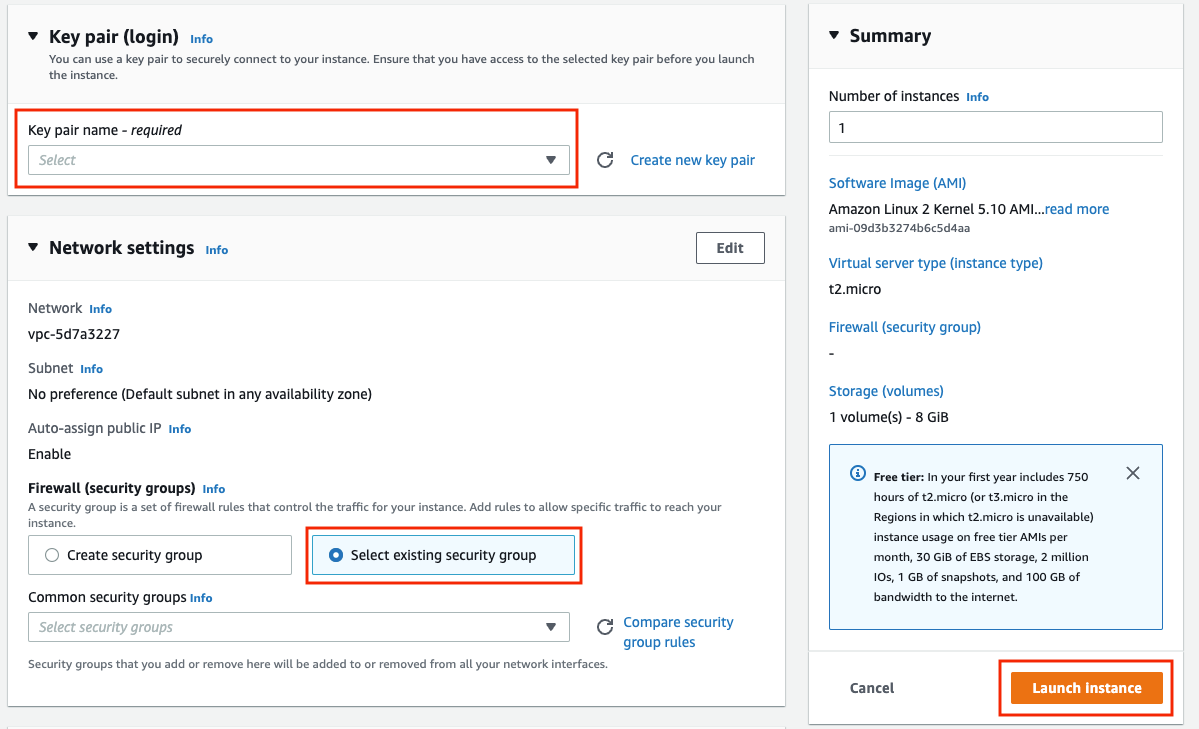
1. Sign in to the the [AWS Management Console](https://console.aws.amazon.com/ec2/).
2. Open the Amazon EC2 console by selecting EC2 under **Compute**.
3. From the Amazon EC2 dashboard, select **Launch Instance**.



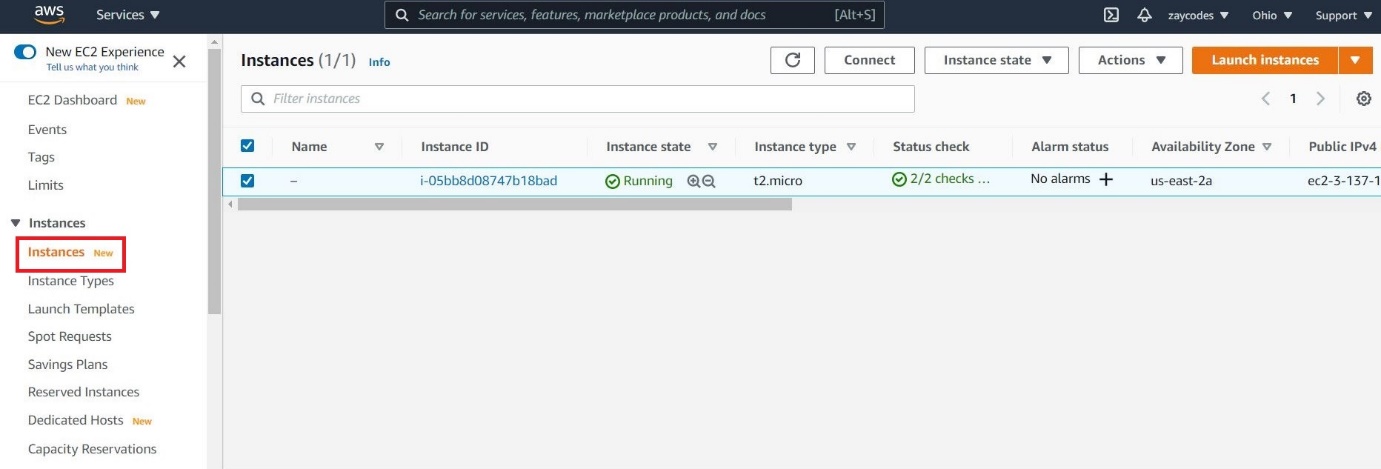
1. The **Choose an Amazon Machine Image (AMI)** page displays a list of basic configurations called Amazon Machine Images (AMIs) that serve as templates for your instance. Select the HVM edition of the **Amazon Linux AMI**.



1. Scroll down and select the key pair you created in the [creating a key pair](https://www.jenkins.io/doc/tutorials/tutorial-for-installing-jenkins-on-AWS/#creating-a-key-pair) section above or any existing key pair you intend to use.
2. Select **Select an existing security group**.
3. Select the **custom** security group by adding ssh and custom TCP at 8080 port rule.
4. Select **Launch Instance**.



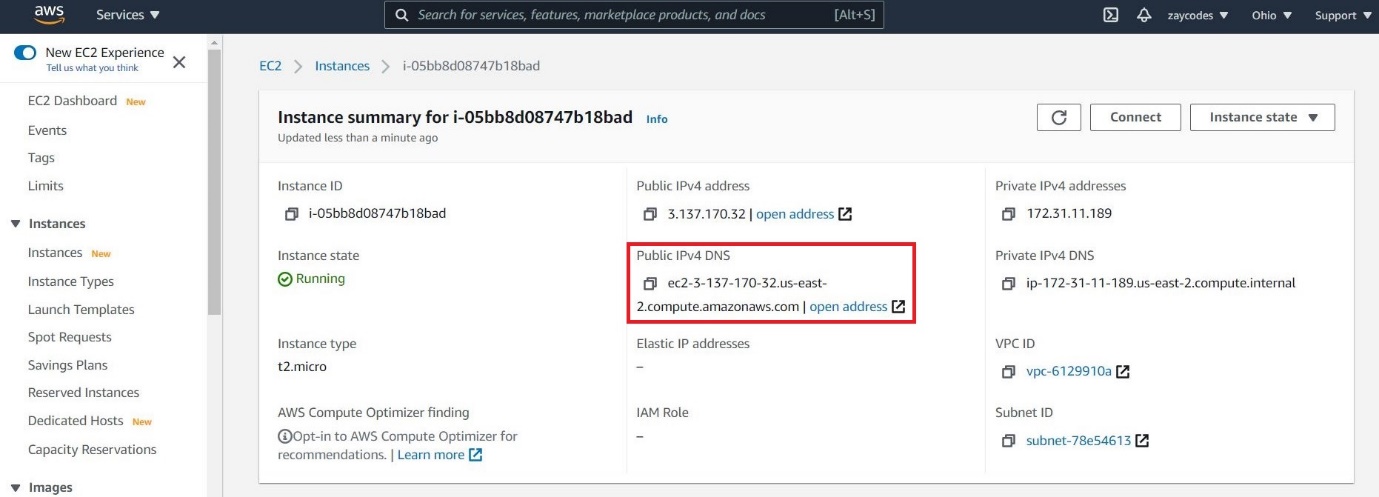
1. In the left-hand navigation bar, choose **Instances** to view the status of your instance. Initially, the status of your instance is pending. After the status changes to running, your instance is ready for use.



**Installing and configuring Jenkins**

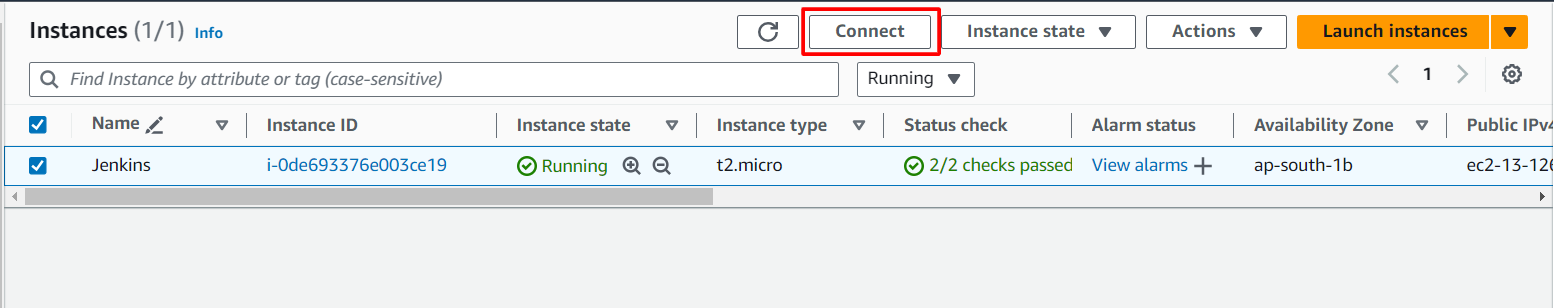
After you launch your instance, you can connect to it and use it the same way as your local machine.

* **Select the instance and locate Public DNS.**



**NOTE:-** If your instance doesn’t have a public DNS name, open the VPC console, select the VPC, and check the **Summary** tab. If either DNS resolution or DNS hostnames is **no**, select **Edit** and change the value to **yes**.

* **Connect the EC2 instance**

****

### **Downloading and installing Jenkins and run commands**

sudo yum update –y

sudo wget -O /etc/yum.repos.d/jenkins.repo \

https://pkg.jenkins.io/redhat-stable/jenkins.repo

sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key

sudo yum upgrade

sudo dnf install java-17-amazon-corretto -y

sudo yum install jenkins -y

sudo systemctl enable jenkins

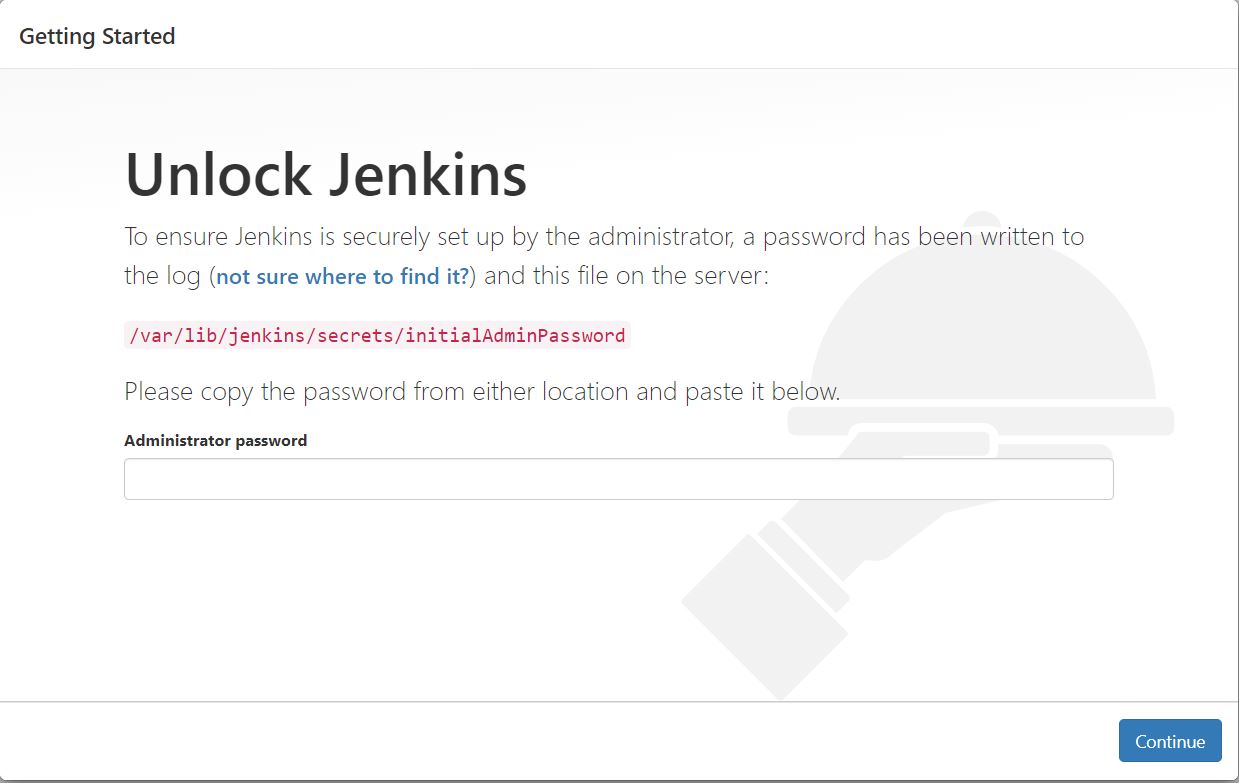
sudo systemctl start jenkins

sudo systemctl status jenkins

### **Configuring Jenkins**

Jenkins is now installed and running on your EC2 instance. To configure Jenkins:

1. Connect to http://<your\_server\_public\_DNS>:8080 from your browser. You will be able to access Jenkins through its management interface:



2. As prompted, enter the password found in /var/lib/jenkins/secrets/initialAdminPassword.

1. Use the following command to display this password:

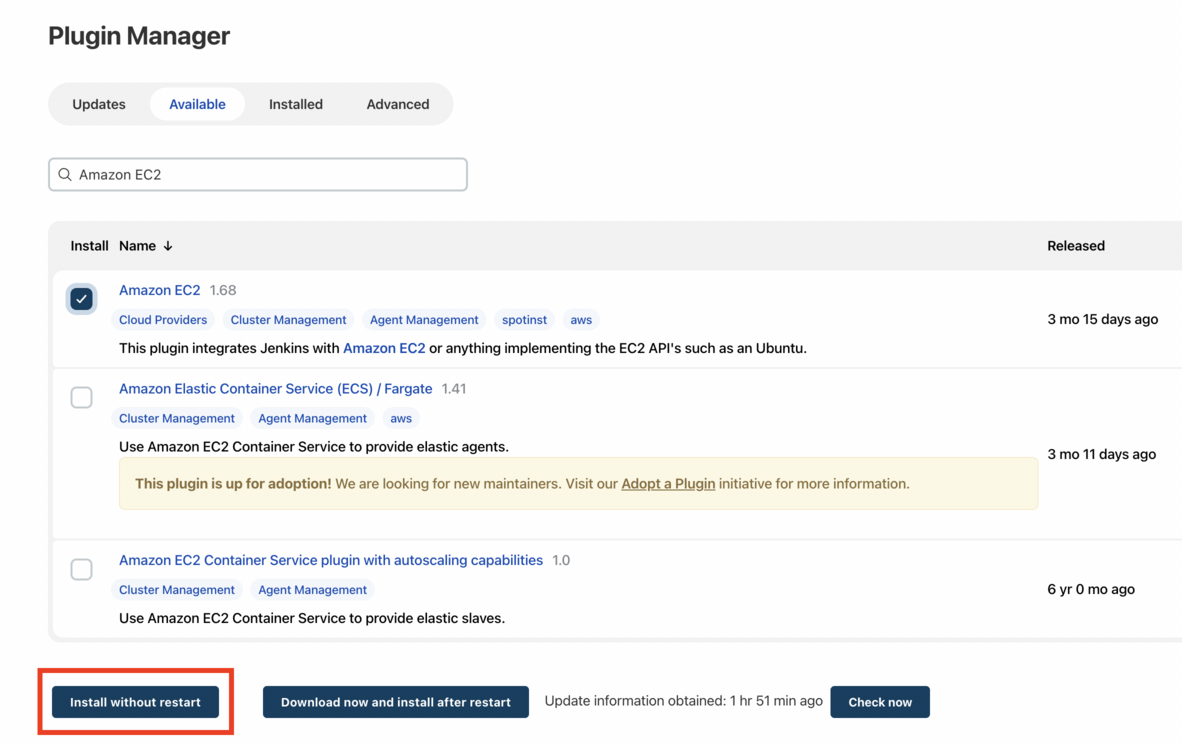
**sudo cat /var/lib/jenkins/secrets/initialAdminPassword**

3. The Jenkins installation script directs you to the **Customize Jenkins page**. Click **Install suggested plugins**.

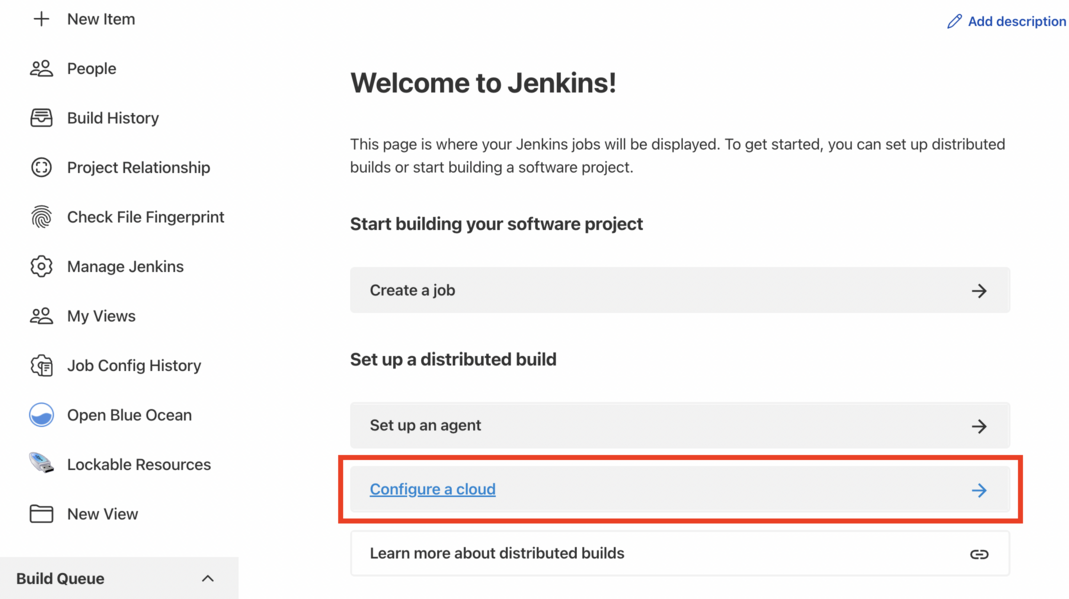
4. Once the installation is complete, the **Create First Admin User** will open. Enter your information, and then select **Save and Continue**.

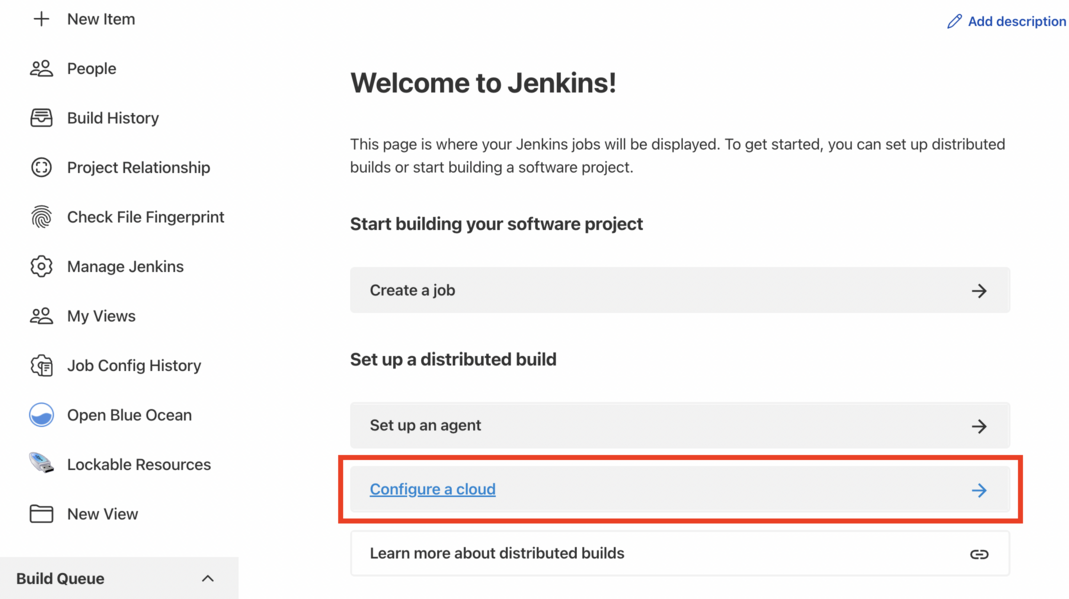


1. On the left-hand side, select **Manage Jenkins**, and then select **Manage Plugins**.
2. Select the **Available** tab, and then enter **Amazon EC2 plugin** at the top right.
3. Select the checkbox next to **Amazon EC2 plugin**, and then select **Install without restart**.

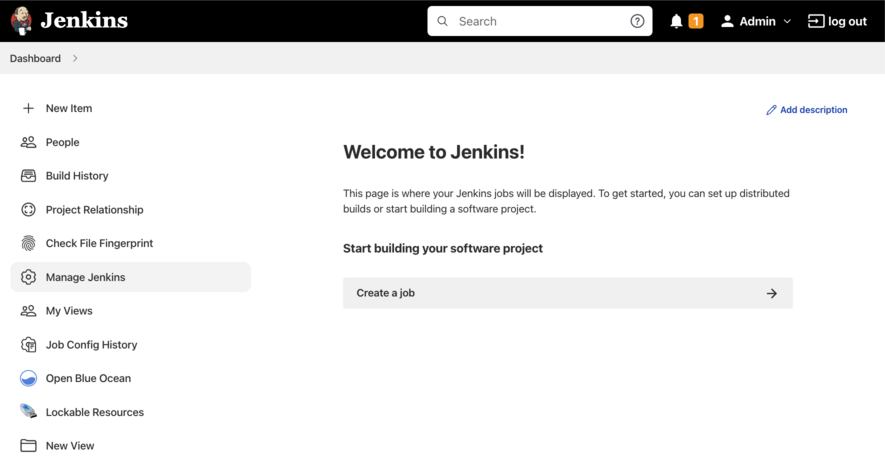


1. Once the installation is done, select **Back to Dashboard**.
2. Select **Configure a cloud** if there are no existing nodes or clouds.

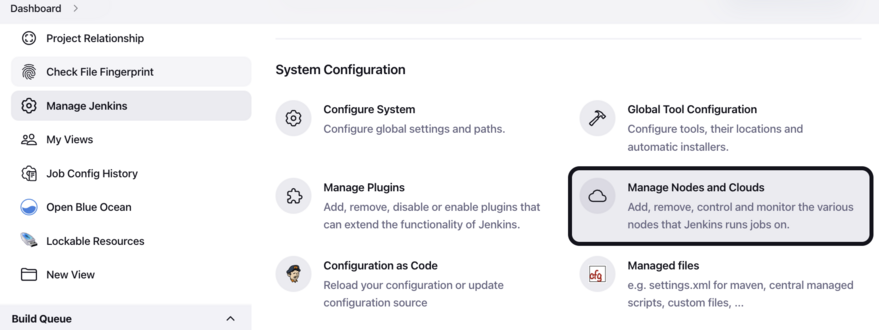




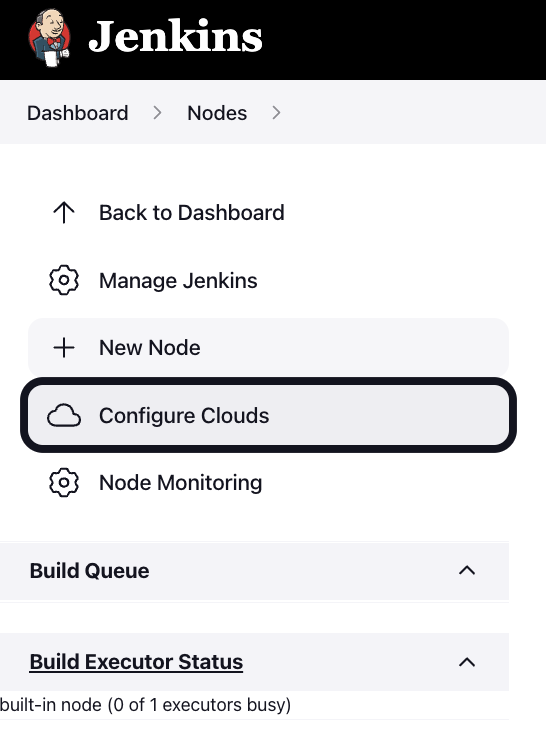
1. If you already have other nodes or clouds set up, select **Manage Jenkins**.



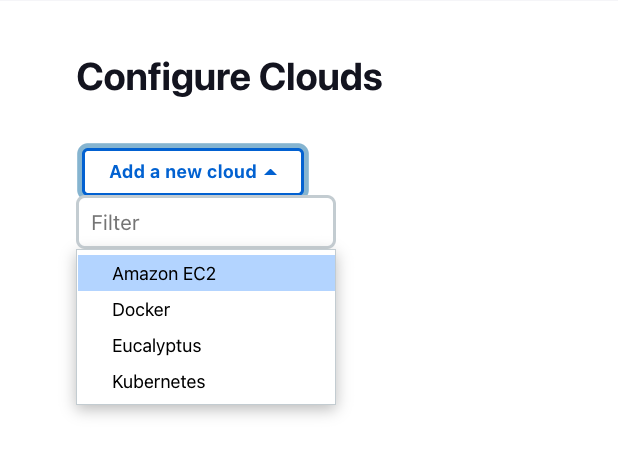
* After navigating to **Manage Jenkins**, select **Configure Nodes and Clouds** from the left hand side of the page.



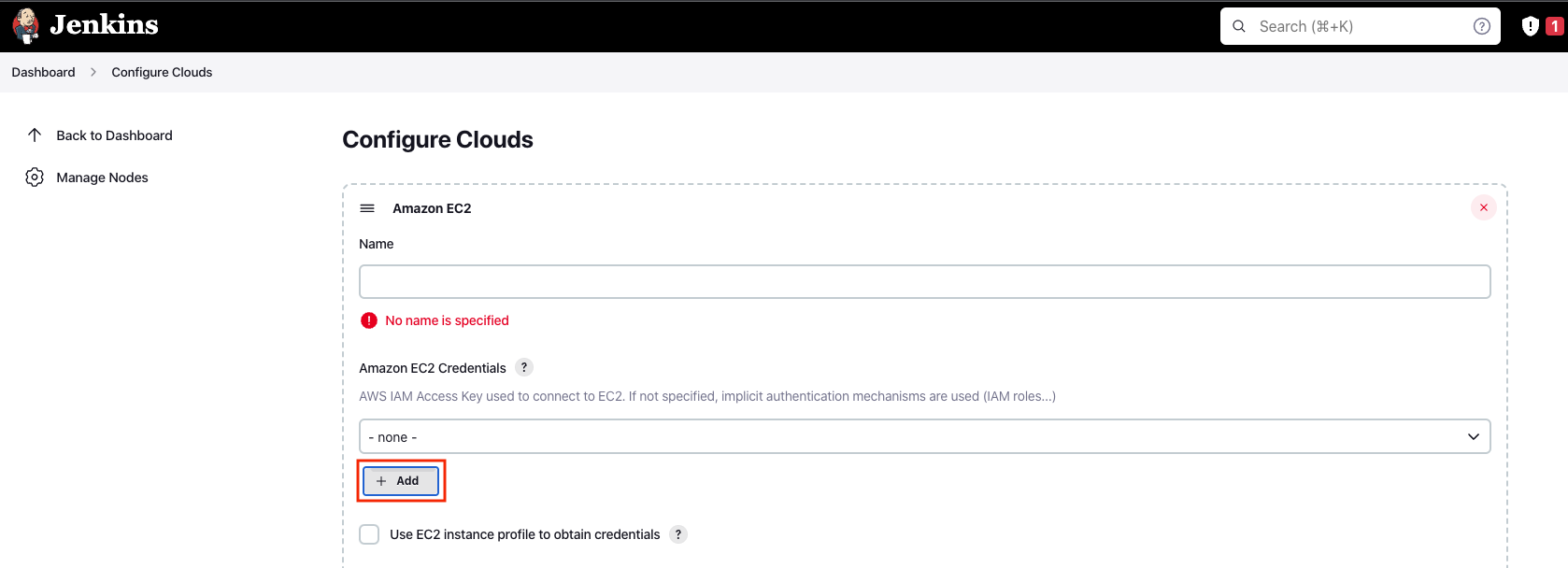
* From here, select **Clouds**.



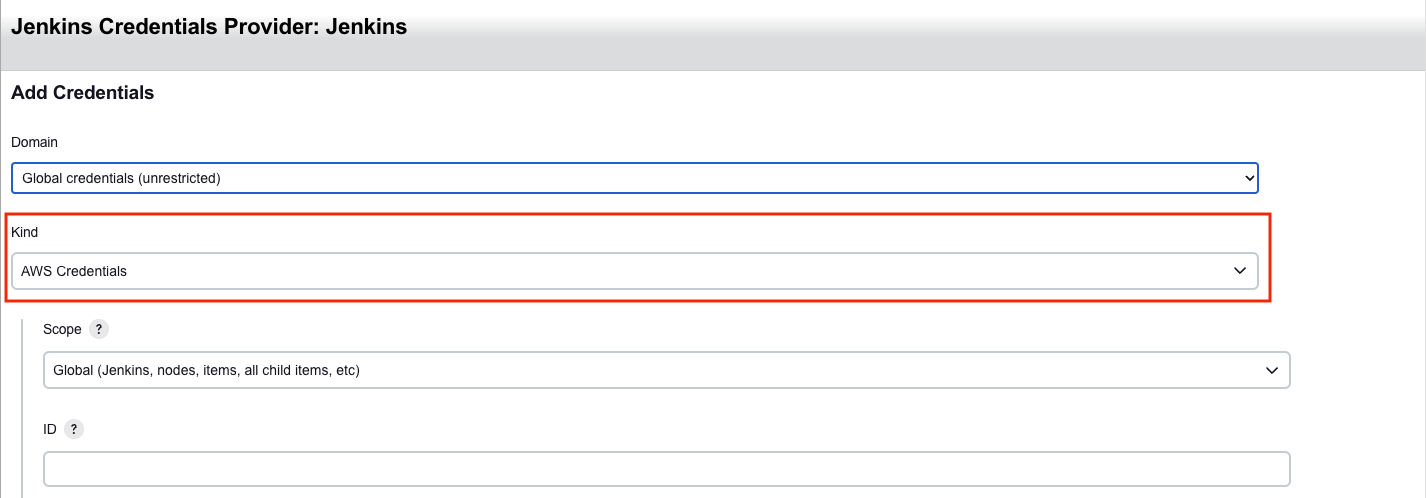
1. Select **Add a new cloud**, and select **Amazon EC2**. A collection of new fields appears.



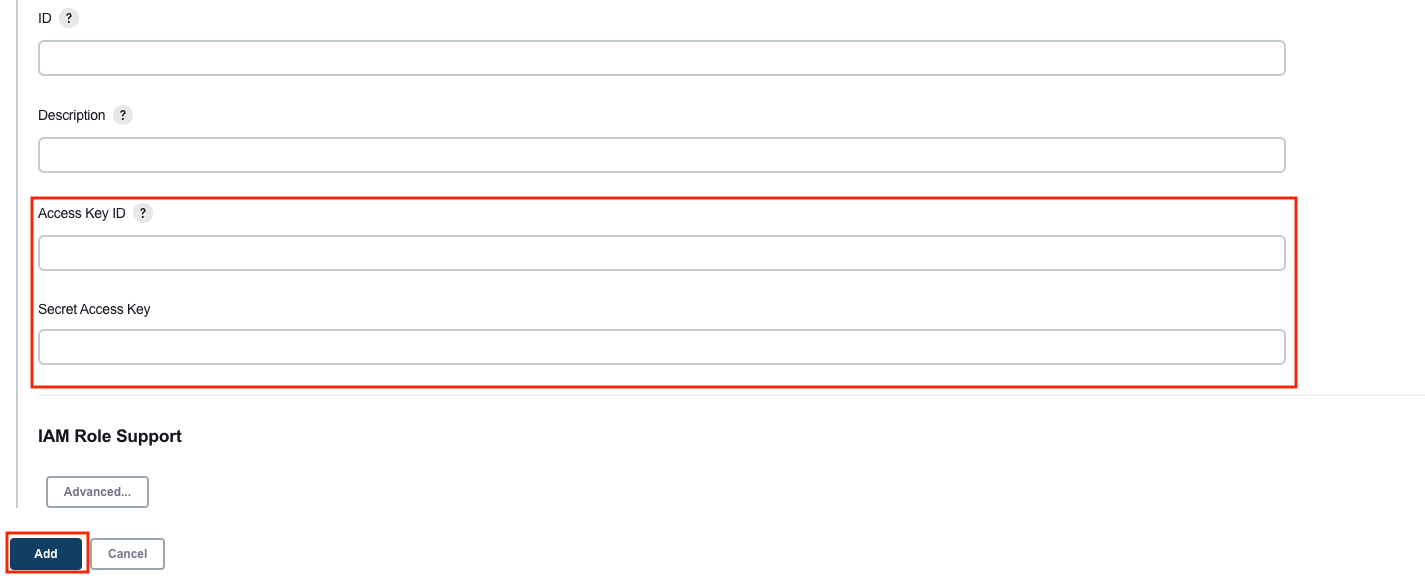
1. Click **Add** under Amazon EC2 Credentials



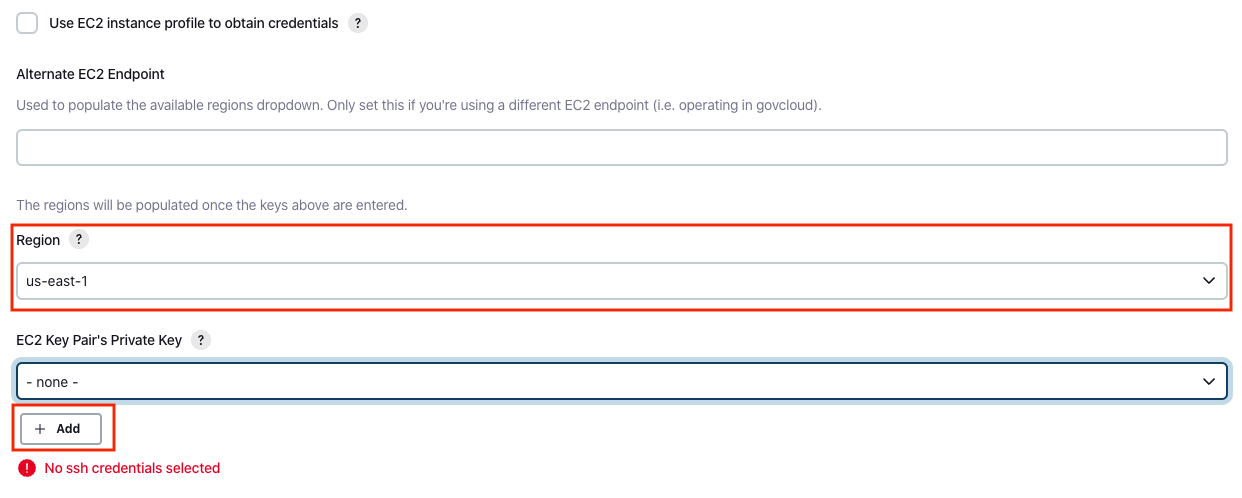
* From the Jenkins Credentials Provider, select AWS Credentials as the **Kind**.



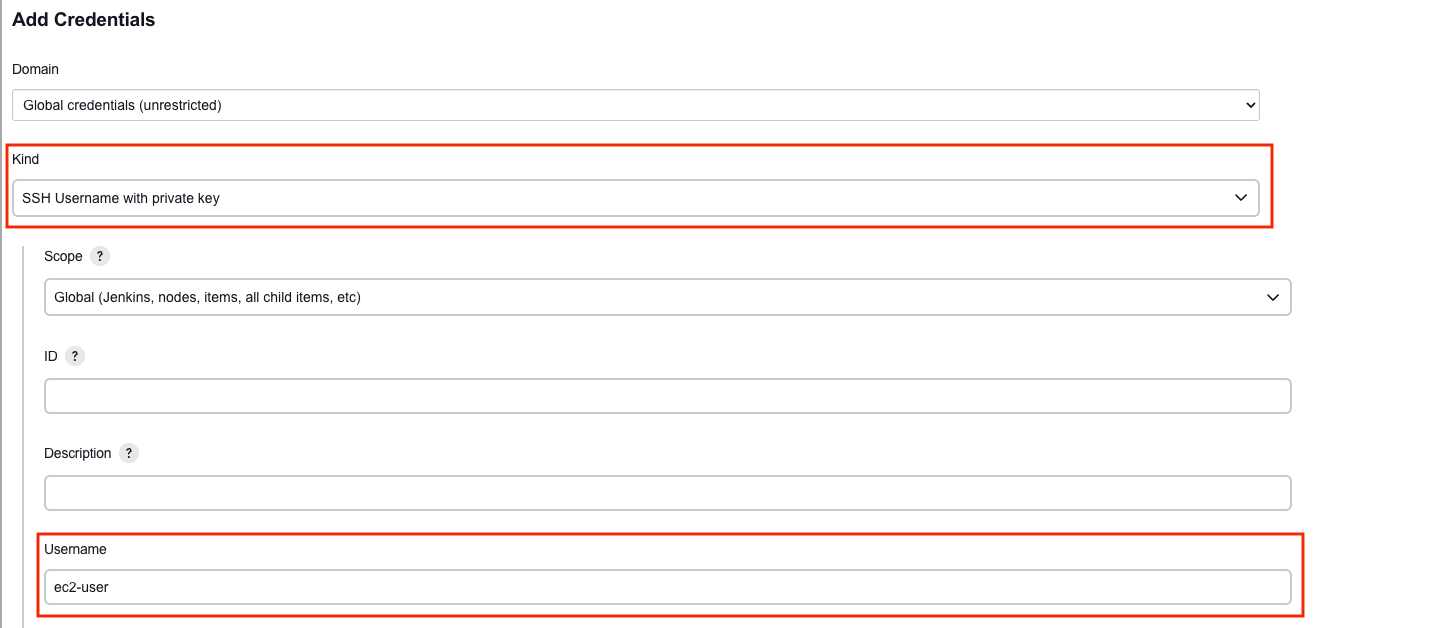
* Scroll down and enter in the IAM User programmatic access keys with permissions to launch EC2 instances and select **Add**.



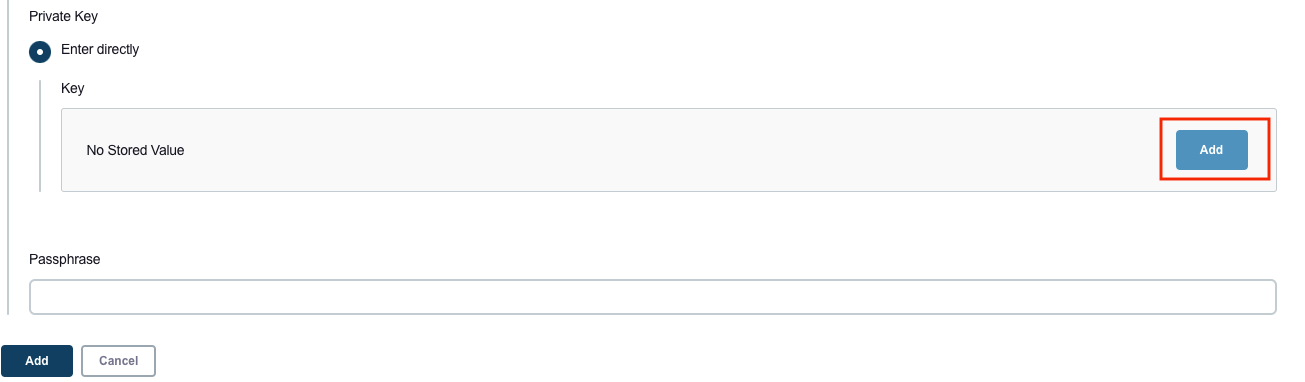
* Scroll down to select your region using the drop-down, and select **Add** for the EC2 Key Pair’s Private Key.



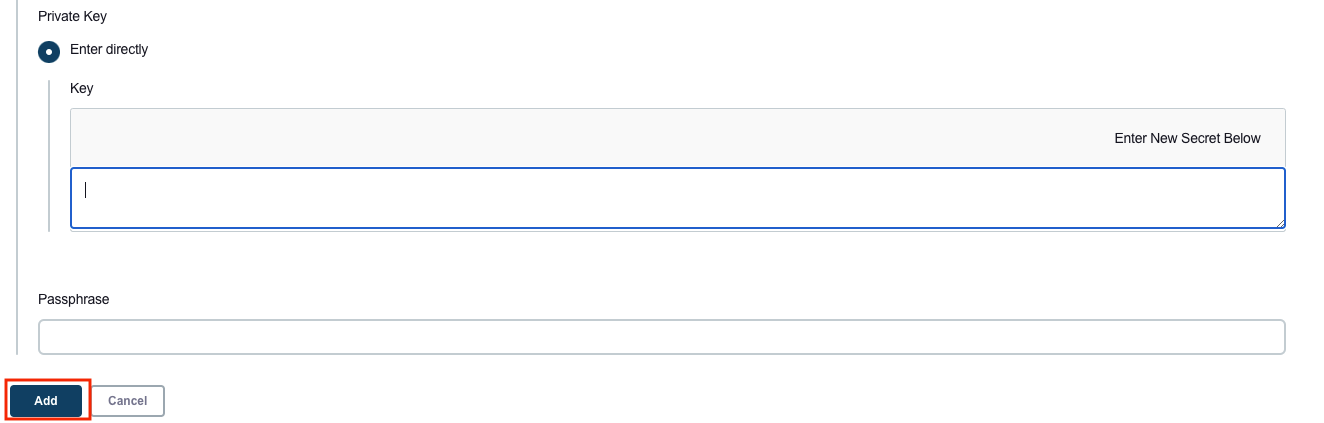
* From the Jenkins Credentials Provider, select SSH Username with private key as the Kind and set the Username to ec2-user.



* Scroll down and select **Enter Directly** under Private Key, then select **Add**.



* Open the private key pair you created in the [creating a key pair](https://www.jenkins.io/doc/tutorials/tutorial-for-installing-jenkins-on-AWS/#creating-a-key-pair) step and paste in the contents from "-----BEGIN RSA PRIVATE KEY-----" to "-----END RSA PRIVATE KEY-----". Select **Add** when completed.



* Scroll down to "Test Connection" and ensure it states "Success". Select **Save** when done



**You are now ready to use EC2 instances as Jenkins agents.**