Installing and configuring Jenkins

Downloading and installing Jenkins

Completing the previous steps enables you to download and install Jenkins on AWS. To download and install Jenkins:

1. Ensure that your software packages are up to date on your instance by using the following command to perform a quick software update:
```
[ec2-user ~]$ sudo yum update –y
```
2. Add the Jenkins repo using the following command:
```
[ec2-user ~]$ sudo wget -O /etc/yum.repos.d/jenkins.repo
https://pkg.jenkins.io/redhat-stable/jenkins.repo
```
3. Import a key file from Jenkins-CI to enable installation from the package:
```
[ec2-user ~]$ sudo rpm --import https://pkg.jenkins.io/redhat-
stable/jenkins.io.key
[ec2-user ~]$ sudo yum upgrade
```
4. Install Java:
```
[ec2-user ~]$ sudo amazon-linux-extras install java-openjdk11 -y
```
5. Install Jenkins:
```
[ec2-user ~]$ sudo yum install jenkins -y
```
6. Enable the Jenkins service to start at boot:
```
[ec2-user ~]$ sudo systemctl enable jenkins
```
7. Start Jenkins as a service:
```
[ec2-user ~]$ sudo systemctl start jenkins
```

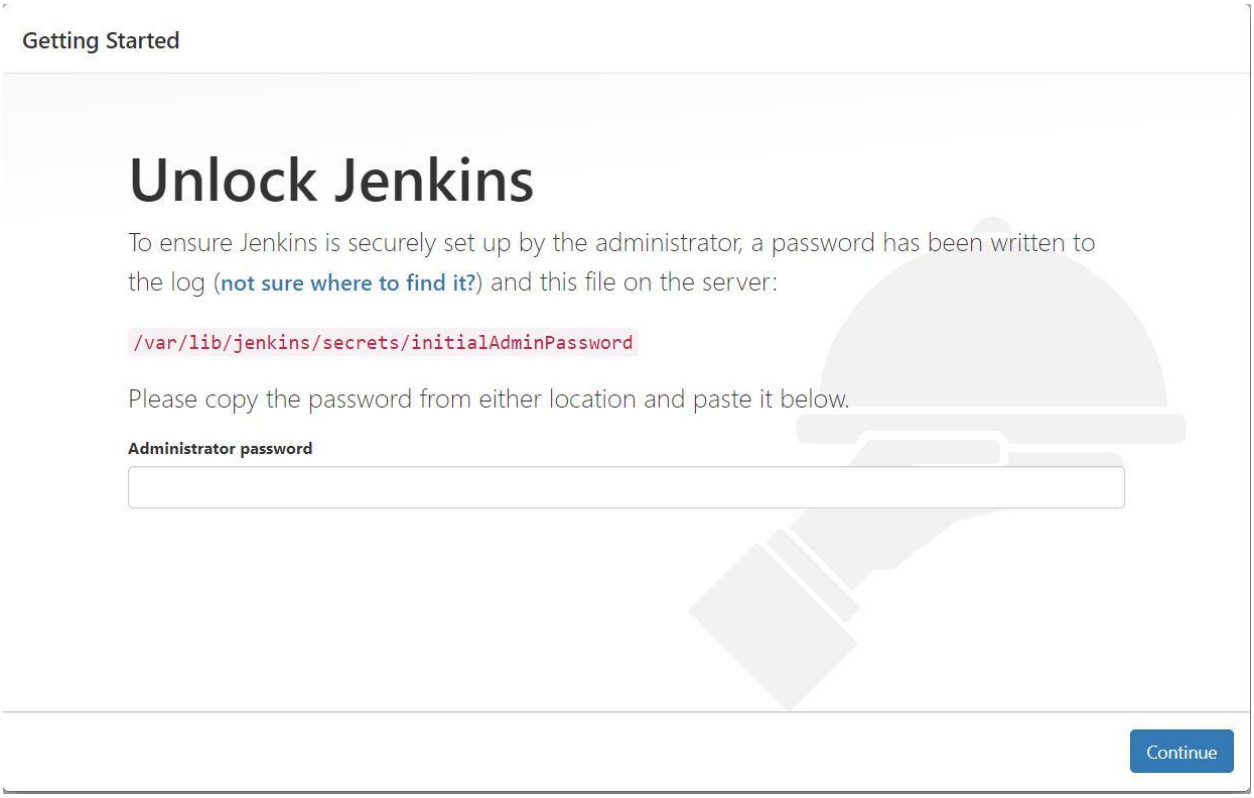
You can check the status of the Jenkins service using the command:

```
[ec2-user ~]$ sudo systemctl status jenkins
```

Configuring Jenkins

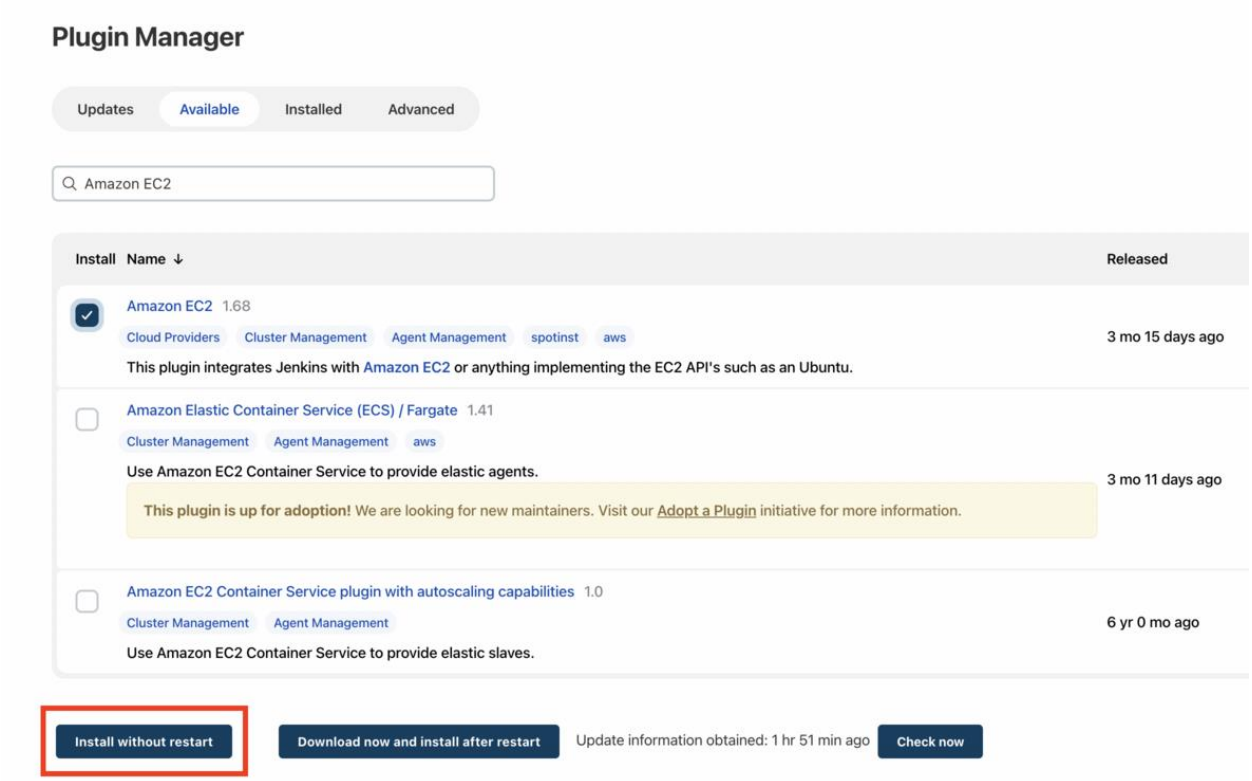
Jenkins is now installed and running on your EC2 instance. To configure Jenkins:

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

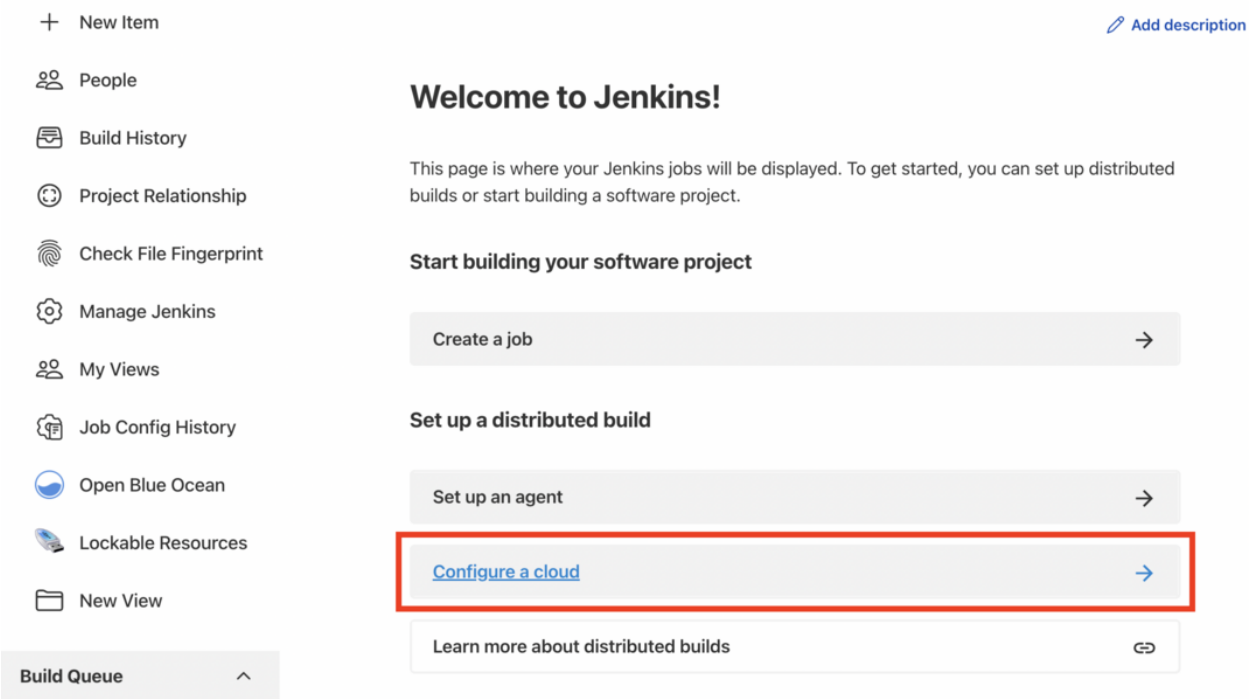


2. As prompted, enter the password found in **/var/lib/jenkins/secrets/initialAdminPassword**.
    a. Use the following command to display this password:
    ```
    [ec2-user ~]$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
    ```
3. The Jenkins installation script directs you to the **Customize 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**.

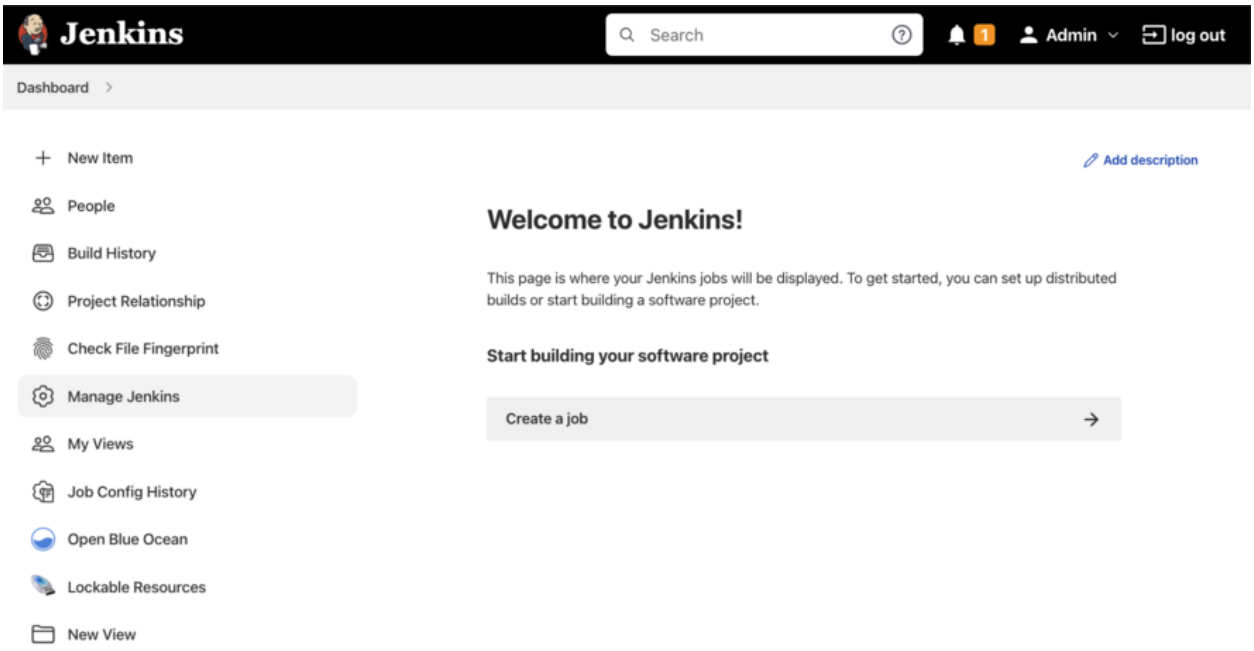
5. On the left-hand side, select **Manage Jenkins**, and then select **Manage Plugins**.
6. Select the **Available** tab, and then enter **Amazon EC2 plugin** at the top right.
7. Select the checkbox next to **Amazon EC2 plugin**, and then select **Install without restart**.



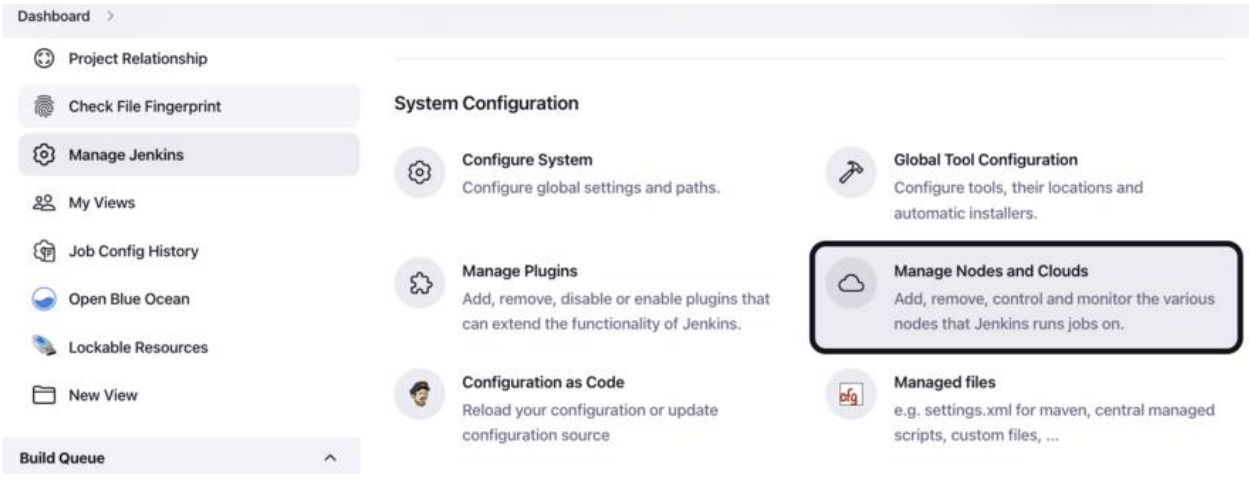
8. Once the installation is done, select **Back to Dashboard**.
9. Select **Configure a cloud** if there are no existing nodes or clouds.



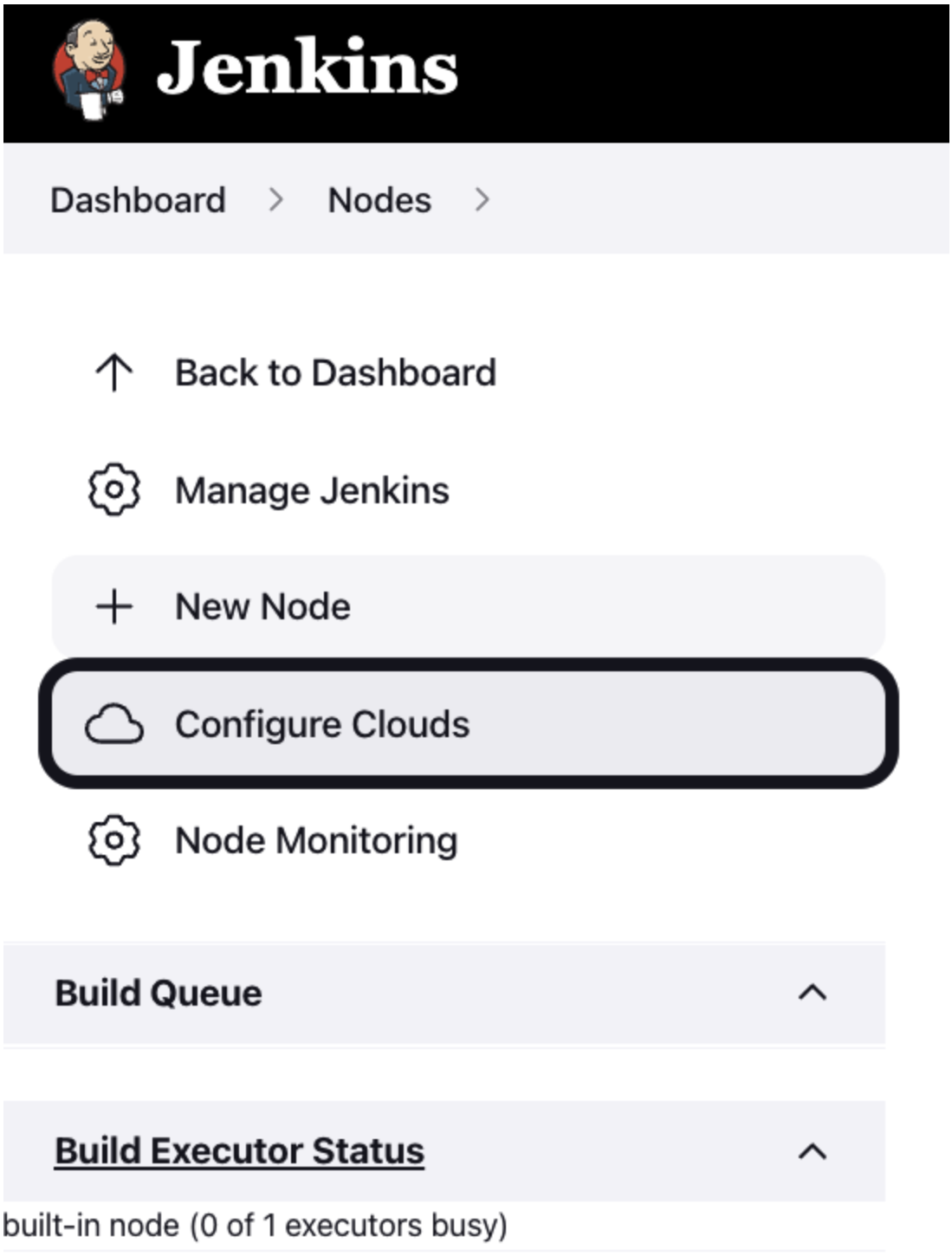
10. If you already have other nodes or clouds set up, select **Manage Jenkins**.



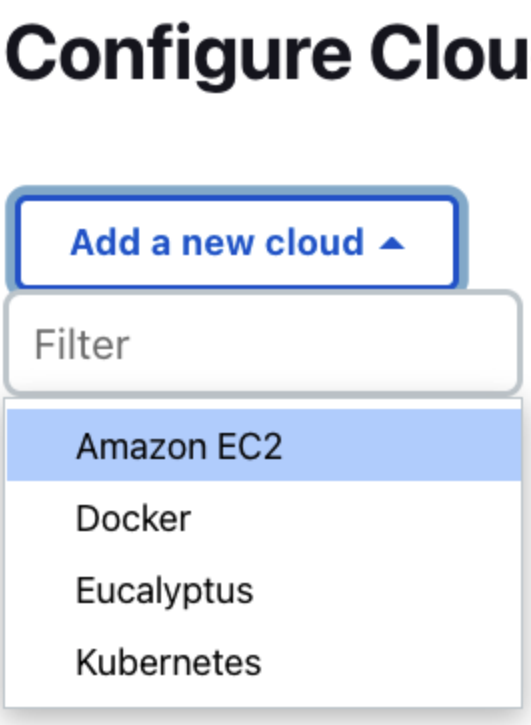
a. After navigating to **Manage Jenkins**, select **Configure Nodes and Clouds** from the left hand side of the page.



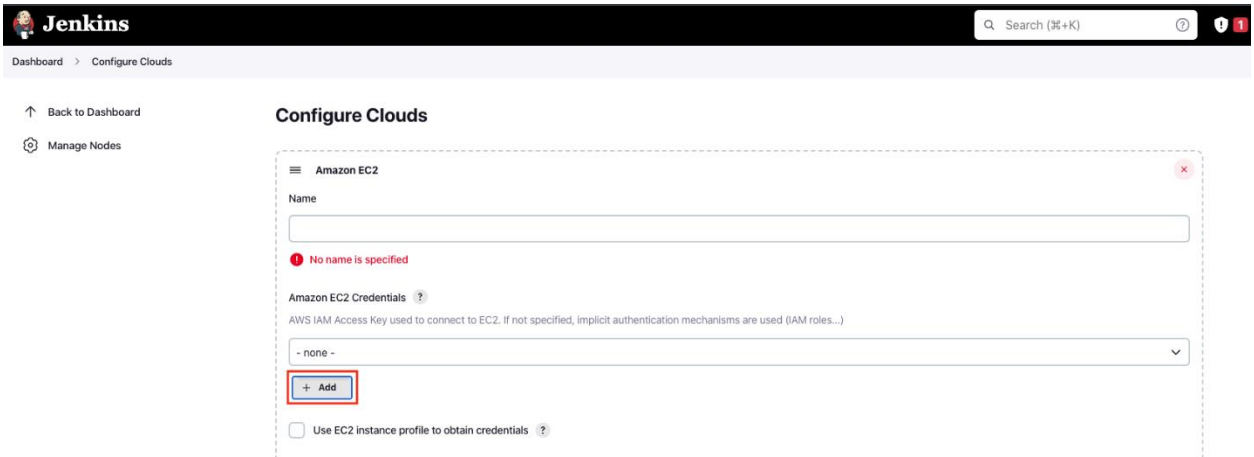
b. From here, select **Configure Clouds**.



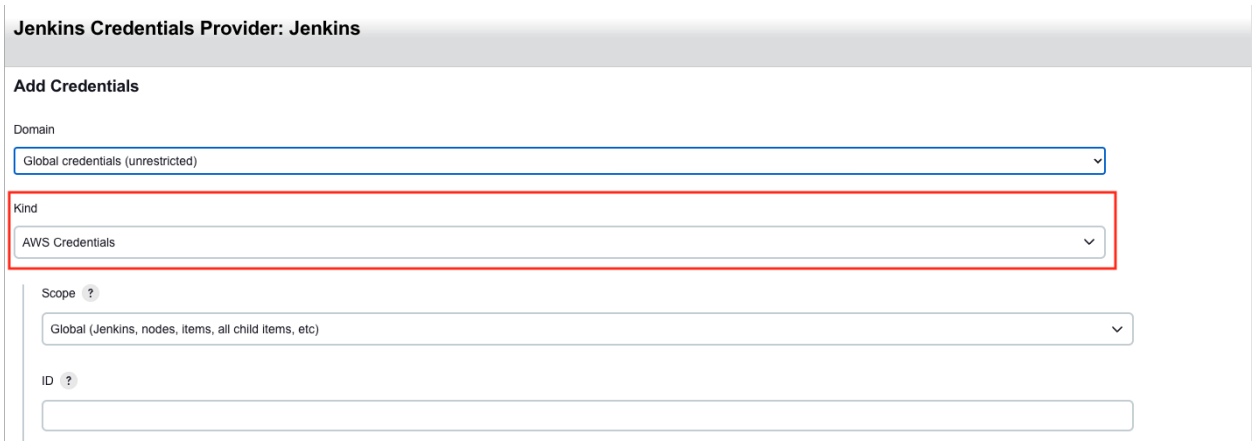
11. Select **Add a new cloud**, and select **Amazon EC2**. A collection of new fields appears.



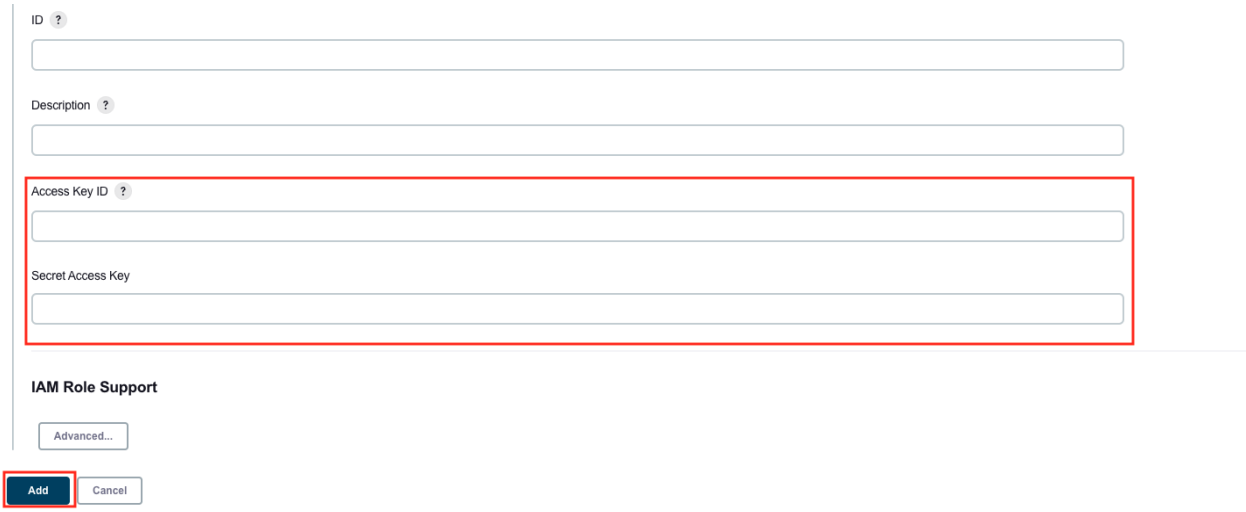
12. Click **Add** under Amazon EC2 Credentials



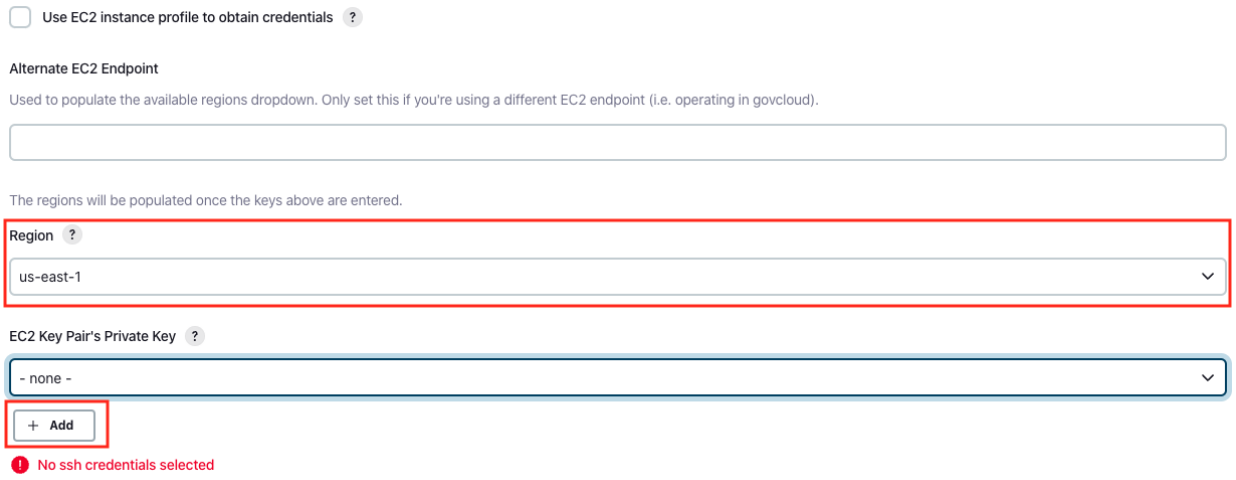
a. From the Jenkins Credentials Provider, select AWS Credentials as the **Kind**.



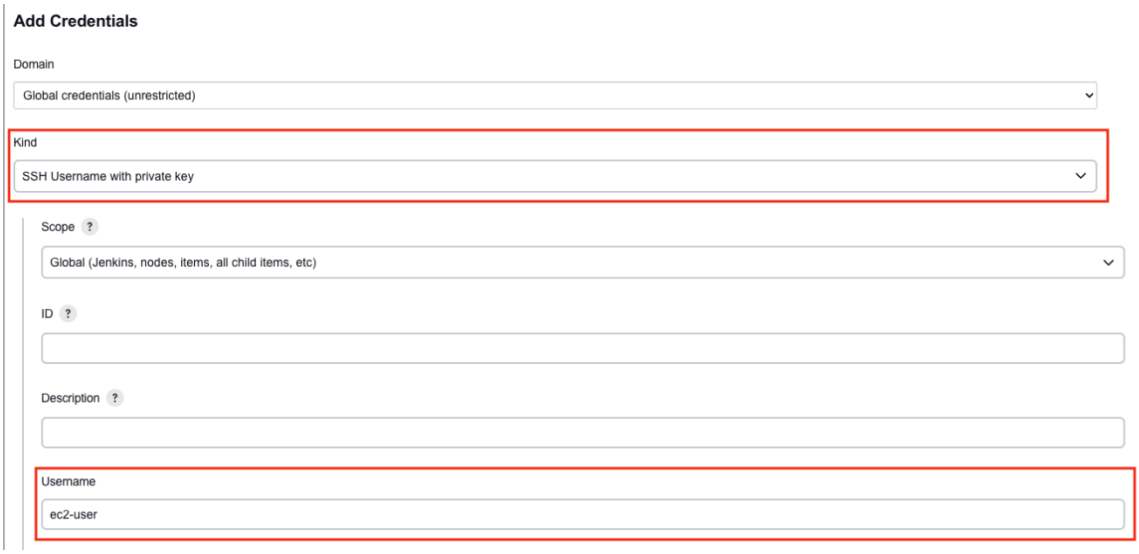
b. Scroll down and enter in the IAM User programmatic access keys with permissions to launch EC2 instances and select **Add**.



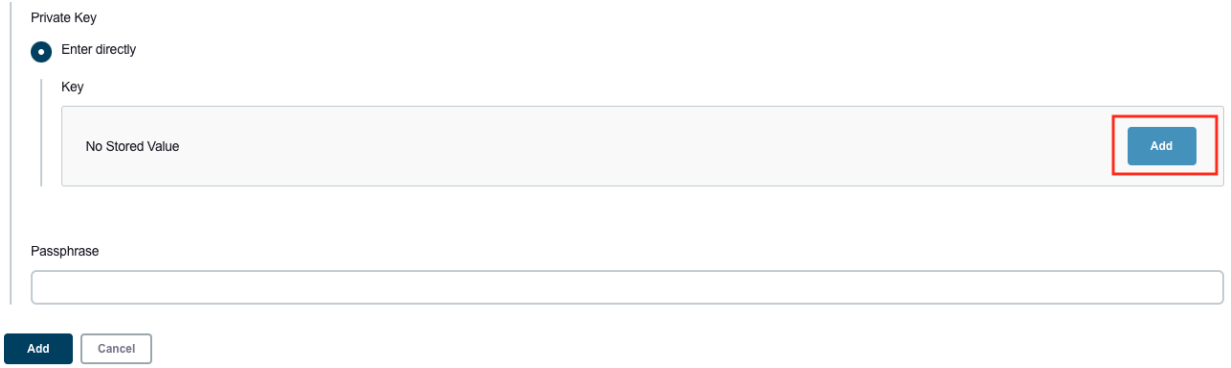
c. Scroll down to select your region using the drop-down, and select **Add** for the EC2 Key Pair's Private Key.



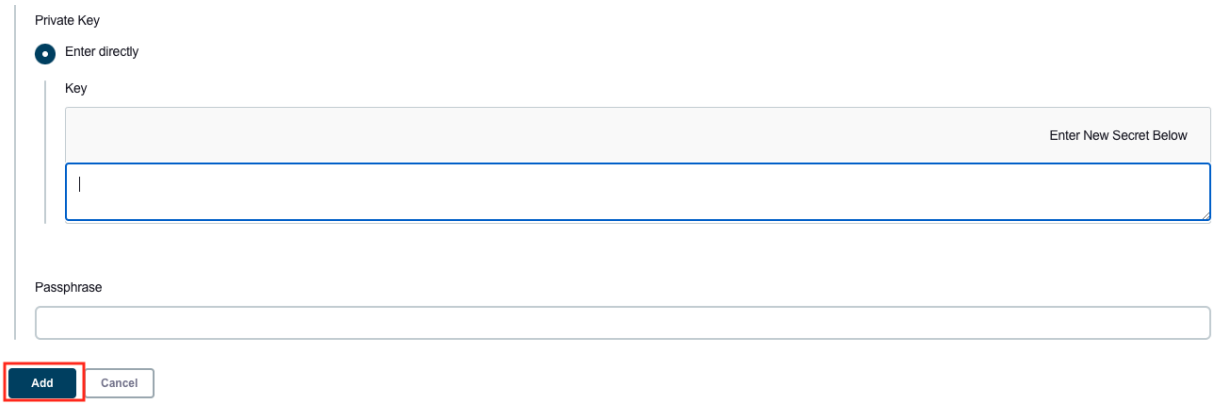
d. From the Jenkins Credentials Provider, select SSH Username with private key as the Kind and set the Username to `ec2-user`.



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



f. Open the private key pair you created in the creating a key pair step and paste in the contents from "-----BEGIN RSA PRIVATE KEY-----" to "-----END RSA PRIVATE KEY-----". Select **Add** when completed.



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