1. Create 2 EC2 instance with source and target server

2.

Source

Create a files and it should be replicated over the target server
Please check them

Target
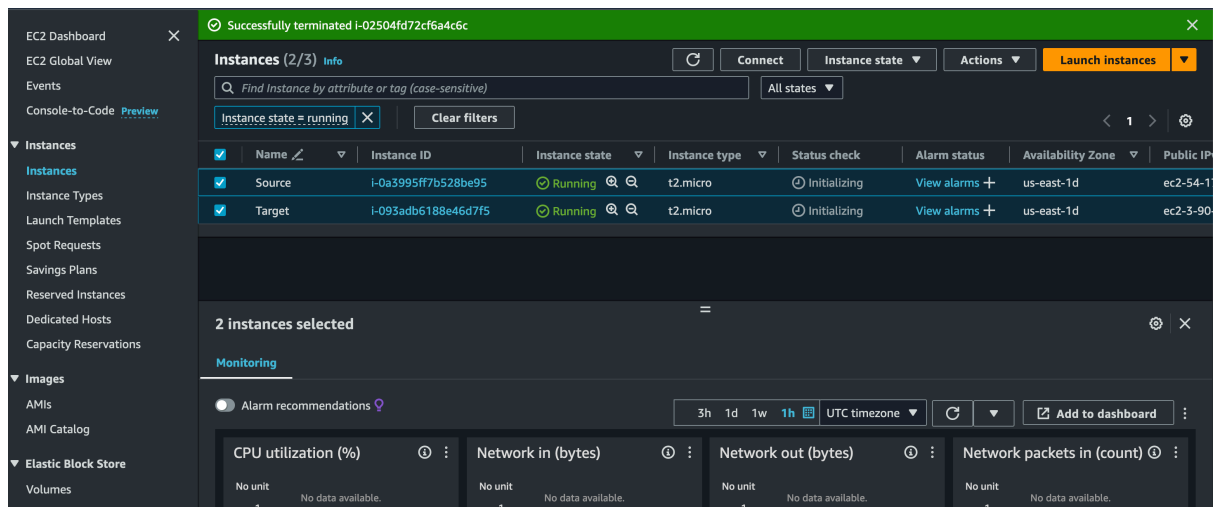
```
ubuntu@ip-172-31-20-198:~/.ssh$ history
    1  sudo apt update
    2  ssh-keygen
    3  ll
    4  cd ~/.ssh/
    5  ll
    6  vi authorized_keys
    7  history
ubuntu@ip-172-31-20-198:~/.ssh$ 
```

2. Write the playbook to install ngnix

    "ADHOC & PLAYBOOKS are used for the below"
    Source

```
   13  ansible -i inventory all -m "shell" -a "touch devopsclass"
   14  vi first-playbook.yml
   15  ansible-playbok -i inventory first-playbook.yml
   16  ansible-playbook -i inventory first-playbook.yml
   17  vi first-playbook.yml
   18  ansible-playbook -i inventory first-playbook.yml
   19  vi first-playbook.yml
   20  ansible-playbook -i inventory first-playbook.yml
   21  history
ubuntu@ip-172-31-31-133:~/ansible$ 
```

- name: nginx install & start services
 hosts: all
 become: true
 tasks:
   - name: install nginx
     apt:
       name: nginx
       state: latest
   - name: start nginx
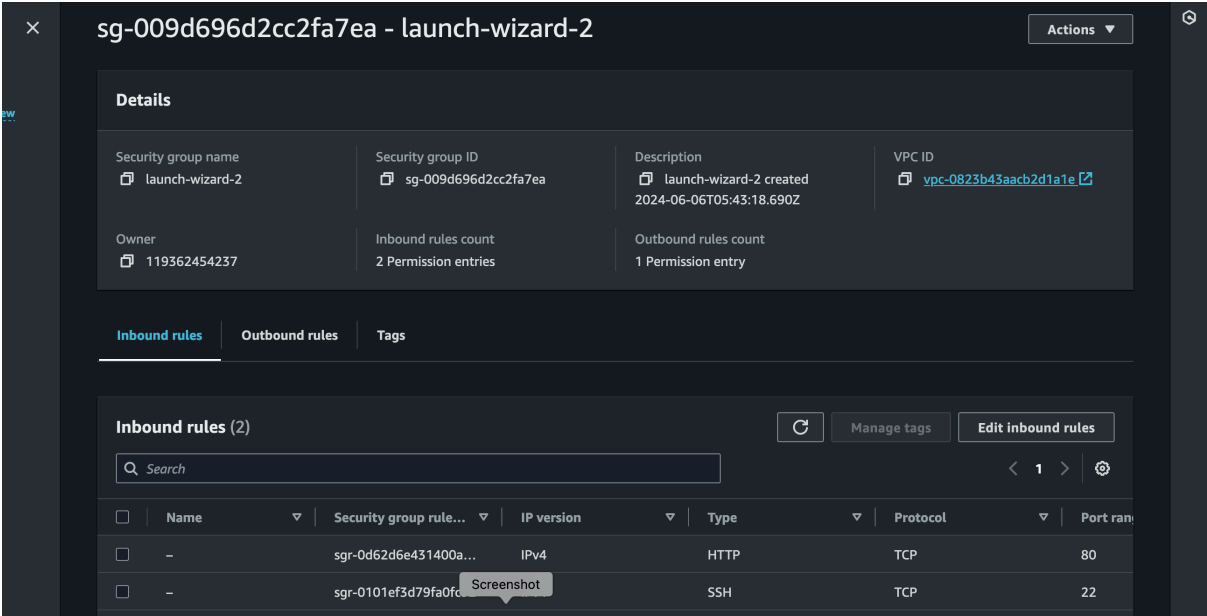   service:
       name: nginx
       state: started

Target

Check the status it should be actively running

Go to aws console add the security groups with port 80

Go to browser and follow the below

3. Create a new playbook and add git and tree to it

```
---
- name: Install Git and Tree on Ubuntu
  hosts: all
  become: true

  tasks:
    - name: Update apt package index
      apt:
        update_cache: yes

    - name: Install Git
      apt:
        name: git
        state: present

    - name: Install Tree
      apt:
        name: tree
        state: present
```


Go to destination server and check whether it is installed or not

4. Create a new playbook and add tomcat to it

Source


```
ubuntu@ip-172-31-31-133:~/ansible$ cat inventory
172.31.20.198

ubuntu@ip-172-31-31-133:~/ansible$
```



```
ubuntu@ip-172-31-31-133:~/ansible$ ansible-playbook -i inventory third-playbook.yml

PLAY [Install Apache Tomcat on Ubuntu] ************************************************************

TASK [Gathering Facts] ***************************************************************************
ok: [172.31.20.198]

TASK [Update apt cache] **************************************************************************
changed: [172.31.20.198]

TASK [Install Java] ******************************************************************************
ok: [172.31.20.198]

TASK [Download Tomcat] ***************************************************************************
ok: [172.31.20.198]

TASK [Extract Tomcat] ****************************************************************************
ok: [172.31.20.198]

TASK [Set Tomcat Environment Variables] **********************************************************
ok: [172.31.20.198]

TASK [Start Tomcat Service] **********************************************************************
changed: [172.31.20.198]

PLAY RECAP ***************************************************************************************
172.31.20.198              : ok=7    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-31-133:~/ansible$
```

```
---
- name: Install Apache Tomcat on Ubuntu
  hosts: all
  become: yes

  tasks:
    - name: Update apt cache
      apt:
        update_cache: yes

    - name: Install Java
      apt:
        name: default-jdk
        state: present

    - name: Download Tomcat
      get_url:
        url: "https://dlcdn.apache.org/tomcat/tomcat-11/v11.0.0-M20/bin/apache-tomcat-11.0.0-M20.tar.gz"
        dest: /tmp/apache-tomcat-11.0.0-M20.tar.gz
```

```
- name: Extract Tomcat
  become: yes
  unarchive:
    src: /tmp/apache-tomcat-11.0.0-M20.tar.gz
    dest: /opt
    remote_src: yes

- name: Set Tomcat Environment Variables
  lineinfile:
    dest: /etc/environment
    line: 'CATALINA_HOME="/opt/apache-tomcat-11.0.0-M20"'

- name: Start Tomcat Service
  command: "{{ tomcat_startup_script }} start"
  vars:
    tomcat_startup_script: "/opt/apache-tomcat-11.0.0-M20/bin/startup.sh"
```

==Note:== **Change the latest version of tomcat link**

Tar.gz ➜ change all the tar links which are added to it.
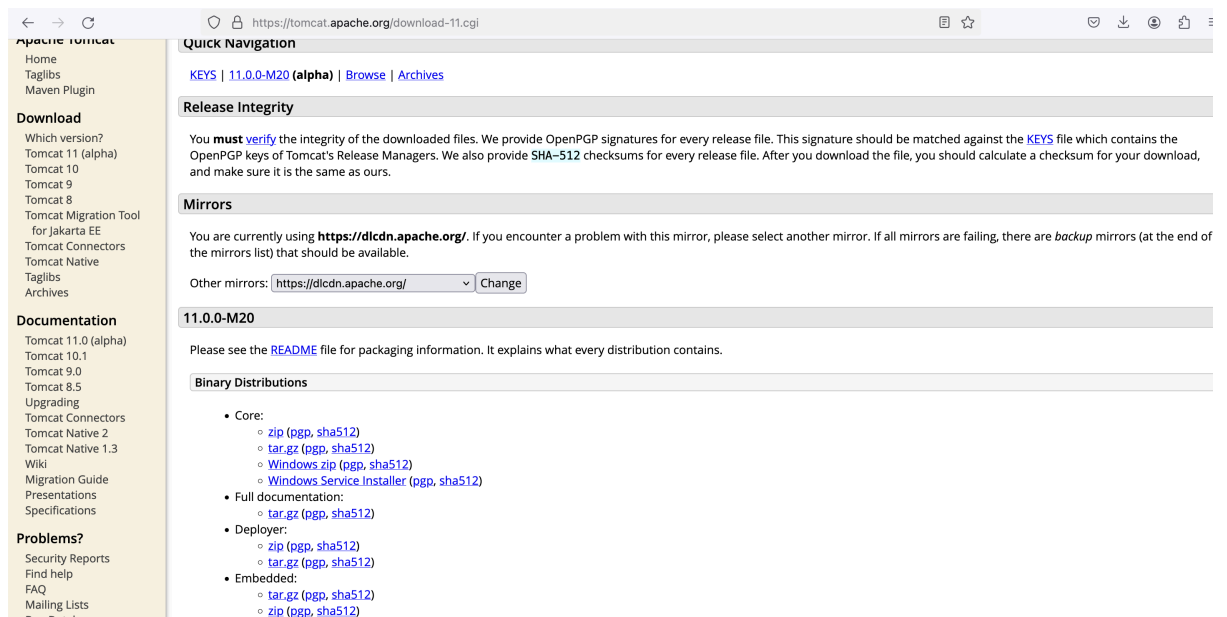
5. Done

   Go to browser and check it is working or not

Home   Documentation   Configuration   Examples   Wiki   Mailing Lists   Find Help

Apache Tomcat/11.0.0-M20   APACHE SOFTWARE FOUNDATION
                                                                   http://www.apache.org/

If you're seeing this, you've successfully installed Tomcat. Congratulations!

Recommended Reading: Server Status

Security Considerations How-To   Manager App

Manager Application How-To   Host Manager

Clustering/Session Replication How-To

Developer Quick Start

Tomcat Setup   **Realms & AAA**   **Examples**   **Servlet Specifications**
First Web Application **JDBC DataSources**   **Tomcat Versions**

Managing Tomcat	Documentation	Getting Help
For security, access to the **manager webapp** is restricted. Users are defined in:	**Tomcat 11.0 Documentation**	**FAQ** and **Mailing Lists**
`$CATALINA_HOME/conf/tomcat-users.xml`	**Tomcat 11.0 Configuration**	The following mailing lists are available:
In Tomcat 11.0 access to the manager application is split between different users.	**Tomcat Wiki**	**tomcat-announce** **Important announcements, releases, security vulnerability notifications. (Low volume).**
Read more...	Find additional important configuration information in:	tomcat-users User support and discussion
Release Notes	`$CATALINA_HOME/RUNNING.txt`	taglibs-user User support and discussion for Apache Taglibs
Changelog	Developers may be interested in:	tomcat-dev Development mailing list, including commit messages
Migration Guide	Tomcat 11.0 Bug Database	
Security Notices	Tomcat 11.0 Screenshot	
	Tomcat 11.0 Git Repository at GitHub	

Done