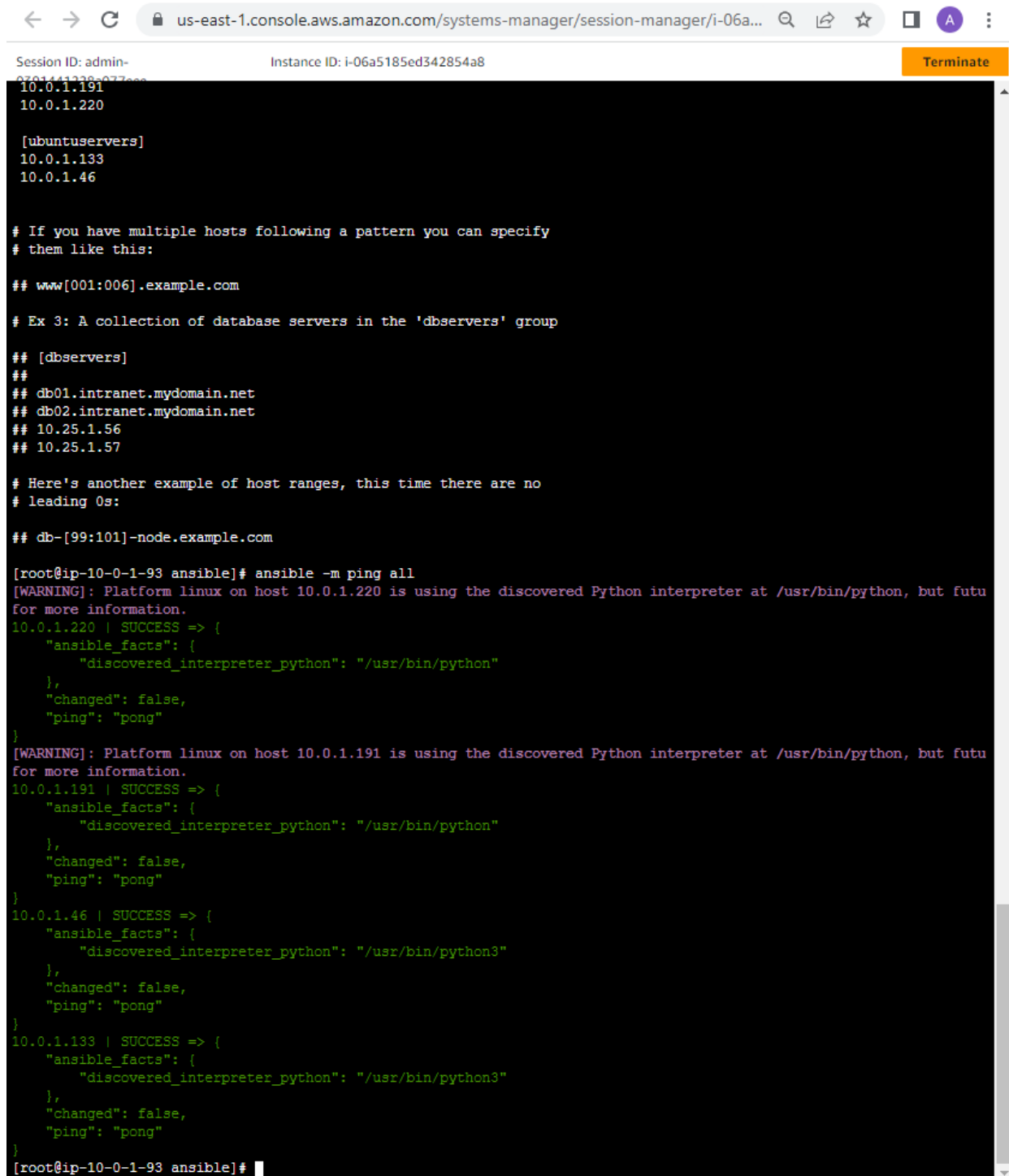


Ansible Assignment 2

Successfully set up an Ansible cluster with the controller running Amazon Linux 2, 2 nodes running Amazon Linux 2 and 2 other nodes running Ubuntu.



The screenshot shows a web browser window with the URL `us-east-1.console.aws.amazon.com/systems-manager/session-manager/i-06a...`. The session ID is `admin-` and the instance ID is `i-06a5185ed342854a8`. A `Terminate` button is visible in the top right corner. The terminal output shows the following:

```
10.0.1.191
10.0.1.220

[ubuntuuserservers]
10.0.1.133
10.0.1.46

# If you have multiple hosts following a pattern you can specify
# them like this:

## www[001:006].example.com

# Ex 3: A collection of database servers in the 'dbservers' group

## [dbservers]
##
## db01.intranet.mydomain.net
## db02.intranet.mydomain.net
## 10.25.1.56
## 10.25.1.57

# Here's another example of host ranges, this time there are no
# leading 0s:

## db-[99:101]-node.example.com

[root@ip-10-0-1-93 ansible]# ansible -m ping all
[WARNING]: Platform linux on host 10.0.1.220 is using the discovered Python interpreter at /usr/bin/python, but futu
for more information.
10.0.1.220 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
[WARNING]: Platform linux on host 10.0.1.191 is using the discovered Python interpreter at /usr/bin/python, but futu
for more information.
10.0.1.191 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
10.0.1.46 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
10.0.1.133 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
[root@ip-10-0-1-93 ansible]#
```

Setting up the playbook on the controller (all 3 plays have been set)

```
← → ↻ 🔒 us-east-1.console.aws.amazon.com/systems-manager/session-manager/i-06a... 🔍 📌 ☆ 🗄️ A ⋮
Session ID: admin- Instance ID: i-06a5185ed342854a8 Terminate
sh-4.2$ sudo su - ec2-user
Last login: Sat Jun 17 19:41:44 UTC 2023 on pts/0
[ec2-user@ip-10-0-1-93 ~]$ sudo -i
[root@ip-10-0-1-93 ~]# vim ansible2-playbook.yml
```

```
← → ↻ 🔒 us-east-1.console.aws.amazon.com/systems-manager/session-manager/i-06a5185ed342854a8?region=us-east-1
Session ID: admin-060f399903aa41bc2 Instance ID: i-06a5185ed342854a8
hosts: amazonlinuxservers

tasks:
  - name: Updating all Apache packages on the Server
    ansible.builtin.yum:
      name: '*'
      state: latest
  - name: Installing the latest version of Apache on the Server
    ansible.builtin.yum:
      name: httpd
      state: latest
  - name: Starting Apache
    ansible.builtin.service:
      name: httpd
      state: started
  - name: Enabling Apache on boot up run
    ansible.builtin.service:
      name: httpd
      enabled: yes
  - name: Copy index.html file from the controller to the nodes
    ansible.builtin.copy:
      src: /root/index.html
      dest: /var/www/html/

# PLAY2
- name: Installing Apache on the Ubuntu nodes.
  hosts: ubuntuuserservers

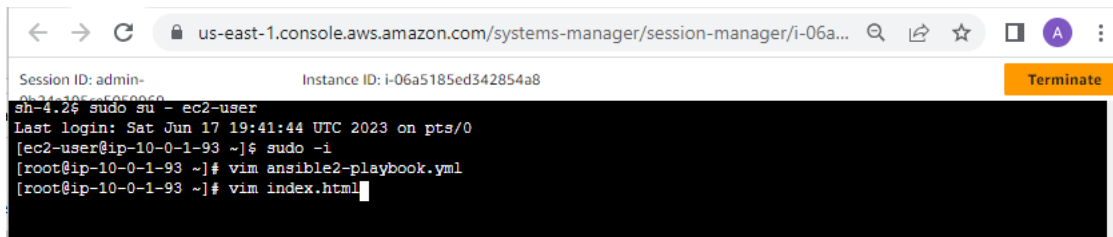
  tasks:
    - name: Updating all Apache packages on the Server
      ansible.builtin.apt:
        name: "*"
        state: latest
    - name: Installing the latest version of Apache on the Server
      ansible.builtin.apt:
        name: apache2
        state: latest
    - name: Starting Apache
      ansible.builtin.service:
        name: apache2
        state: started
    - name: Enabling Apache on boot up run
      ansible.builtin.service:
        name: apache2
        enabled: yes
    - name: Copy index.html file from the controller to the nodes
      ansible.builtin.copy:
        src: /root/index.html
        dest: /var/www/html/

# PLAY3
- name: Installing GIT on all nodes.
  hosts: all

  tasks:
    - name: Installing GIT on all nodes in the inventory file
      ansible.builtin.yum:
        name: git
        state: present

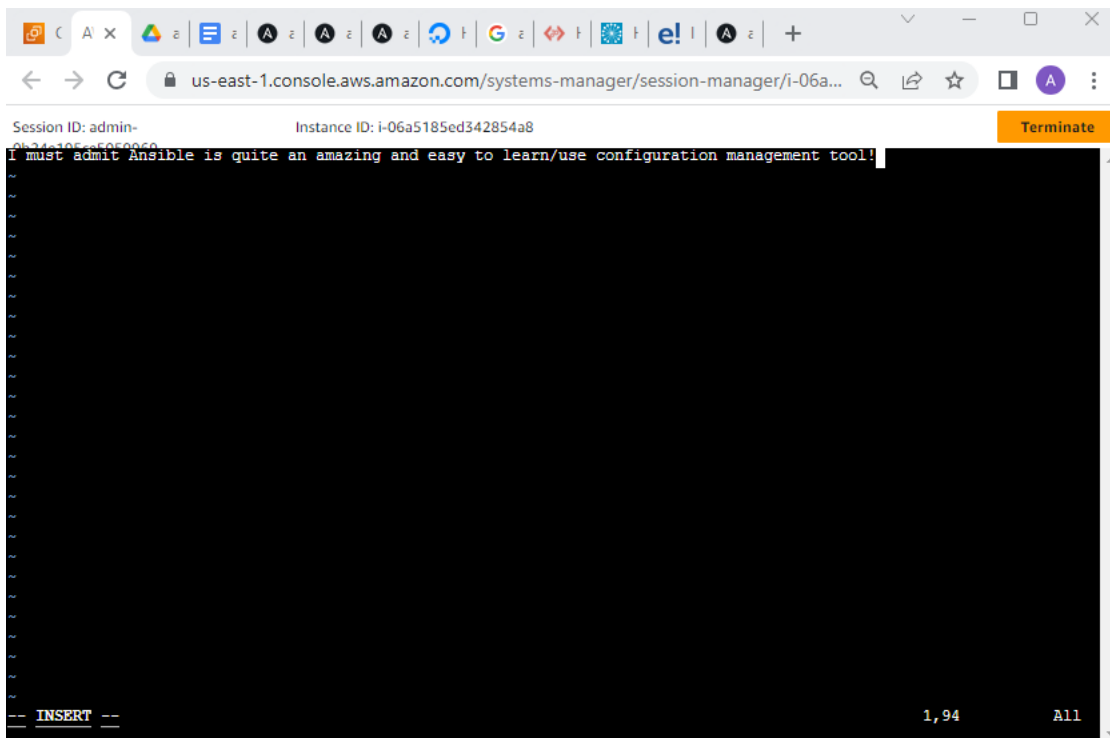
"ansible2-playbook.yml" 62L, 1651B
```

Creating and setting up my index.html on the controller



A screenshot of the AWS Systems Manager session manager interface. The browser address bar shows the URL: `us-east-1.console.aws.amazon.com/systems-manager/session-manager/i-06a...`. The session details at the top indicate "Session ID: admin-..." and "Instance ID: i-06a5185ed342854a8". A "Terminate" button is visible in the top right corner. The terminal window shows the following commands and output:

```
sh-4.2$ sudo su - ec2-user
Last login: Sat Jun 17 19:41:44 UTC 2023 on pts/0
[ec2-user@ip-10-0-1-93 ~]$ sudo -i
[root@ip-10-0-1-93 ~]# vim ansible2-playbook.yml
[root@ip-10-0-1-93 ~]# vim index.html
```



A screenshot of the AWS Systems Manager session manager interface, showing the same session as the previous image. The terminal window now displays the content of the `index.html` file being edited in vim:

```
I must admit Ansible is quite an amazing and easy to learn/use configuration management tool!
```

The vim editor interface is visible, showing the "INSERT" mode at the bottom left and the line number "1,94" at the bottom right.

Running the playbook to confirm whether Apache and Git were successfully deployed and launched. Success!

```
Post Ansil Ansil Coni A X G how Man 54.2 (650) +
us-east-1.console.aws.amazon.com/systems-manager/session-manager/i-06...
Session ID: admin-060f399903aa41bc2 Instance ID: i-06a5185ed342854a8 Terminate
sh-4.2$ sudo su - ec2-user
Last login: Thu Jun 22 02:04:53 UTC 2023 on pts/0
[ec2-user@ip-10-0-1-93 ~]$ sudo -i
[root@ip-10-0-1-93 ~]# vim ansible2-playbook.yml
[root@ip-10-0-1-93 ~]# ansible-playbook ansible2-playbook.yml

PLAY [Installing Apache on the Amazon Linux nodes.] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 10.0.1.191 is using the discovered Python interpreter at /usr/bin/python, but future i
for more information.
ok: [10.0.1.191]
[WARNING]: Platform linux on host 10.0.1.220 is using the discovered Python interpreter at /usr/bin/python, but future i
for more information.
ok: [10.0.1.220]

TASK [Updating all Apache packages on the Server] *****
ok: [10.0.1.220]
ok: [10.0.1.191]

TASK [Installing the latest version of Apache on the Server] *****
ok: [10.0.1.191]
ok: [10.0.1.220]

TASK [Starting Apache] *****
ok: [10.0.1.191]
ok: [10.0.1.220]

TASK [Enabling Apache on boot up run] *****
ok: [10.0.1.191]
ok: [10.0.1.220]

TASK [Copy index.html file from the controller to the nodes] *****
ok: [10.0.1.191]
ok: [10.0.1.220]

PLAY [Installing Apache on the Ubuntu nodes.] *****

TASK [Gathering Facts] *****
ok: [10.0.1.46]
ok: [10.0.1.133]

TASK [Updating all Apache packages on the Server] *****
ok: [10.0.1.46]
ok: [10.0.1.133]

TASK [Installing the latest version of Apache on the Server] *****
ok: [10.0.1.133]
ok: [10.0.1.46]

TASK [Starting Apache] *****
ok: [10.0.1.133]
ok: [10.0.1.46]

TASK [Enabling Apache on boot up run] *****
ok: [10.0.1.133]
ok: [10.0.1.46]

TASK [Copy index.html file from the controller to the nodes] *****
ok: [10.0.1.46]
ok: [10.0.1.133]
```

```
TASK [Copy index.html file from the controller to the nodes] *****
ok: [10.0.1.46]
ok: [10.0.1.133]

PLAY [Installing GIT on all nodes.] *****

TASK [Gathering Facts] *****
ok: [10.0.1.133]
ok: [10.0.1.46]
ok: [10.0.1.191]
ok: [10.0.1.220]

TASK [Installing GIT on all nodes in the inventory file] *****
ok: [10.0.1.133]
ok: [10.0.1.46]
changed: [10.0.1.220]
changed: [10.0.1.191]

PLAY RECAP *****
10.0.1.133 : ok=8 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
10.0.1.191 : ok=8 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
10.0.1.220 : ok=8 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
10.0.1.46 : ok=8 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

[root@ip-10-0-1-93 ~]#
```

Checking Apache was successfully deployed on the nodes – successful as shown on example below (all 4 nodes show the message below)

