DevOps (CS457)

ASSIGNMENT 3 – Task 5

Add users to EC2 instances with SSH Access – Ansible

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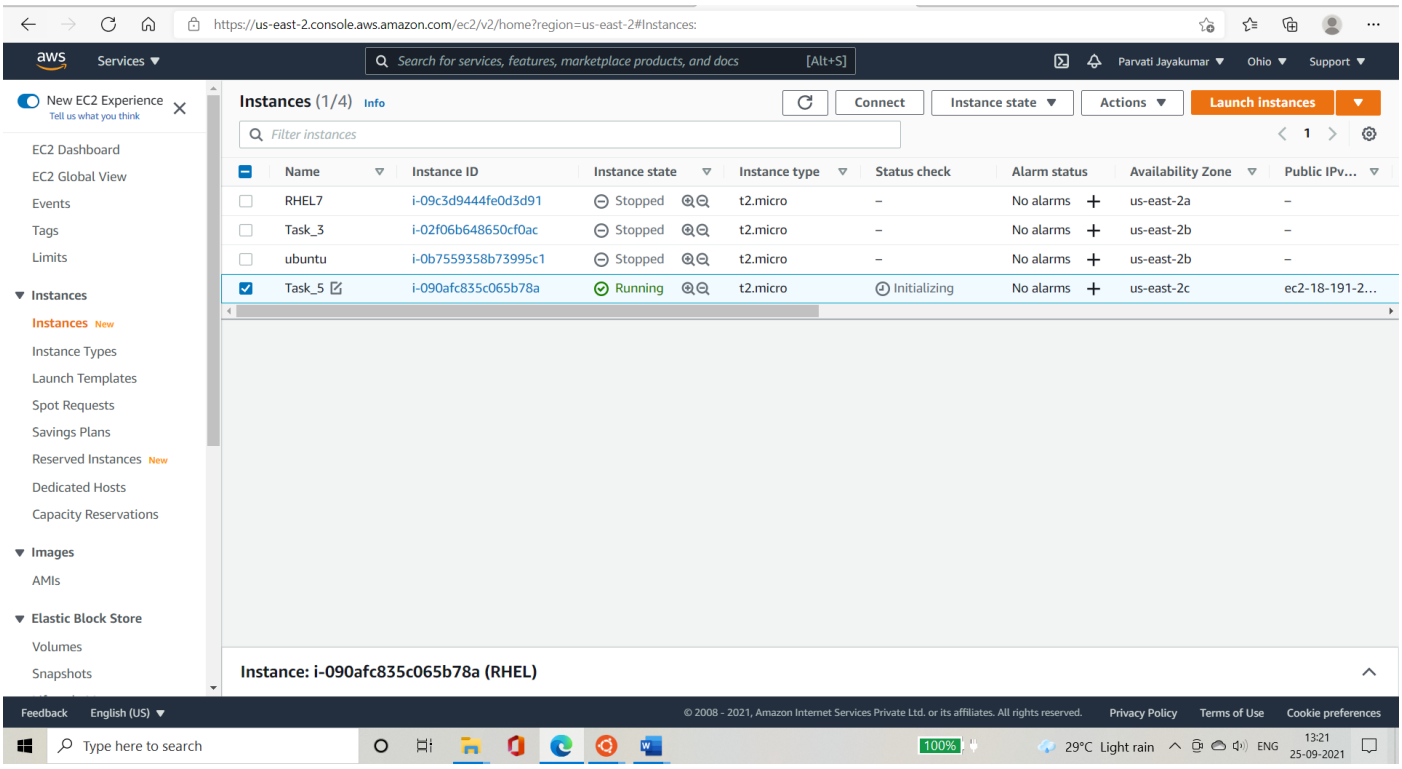
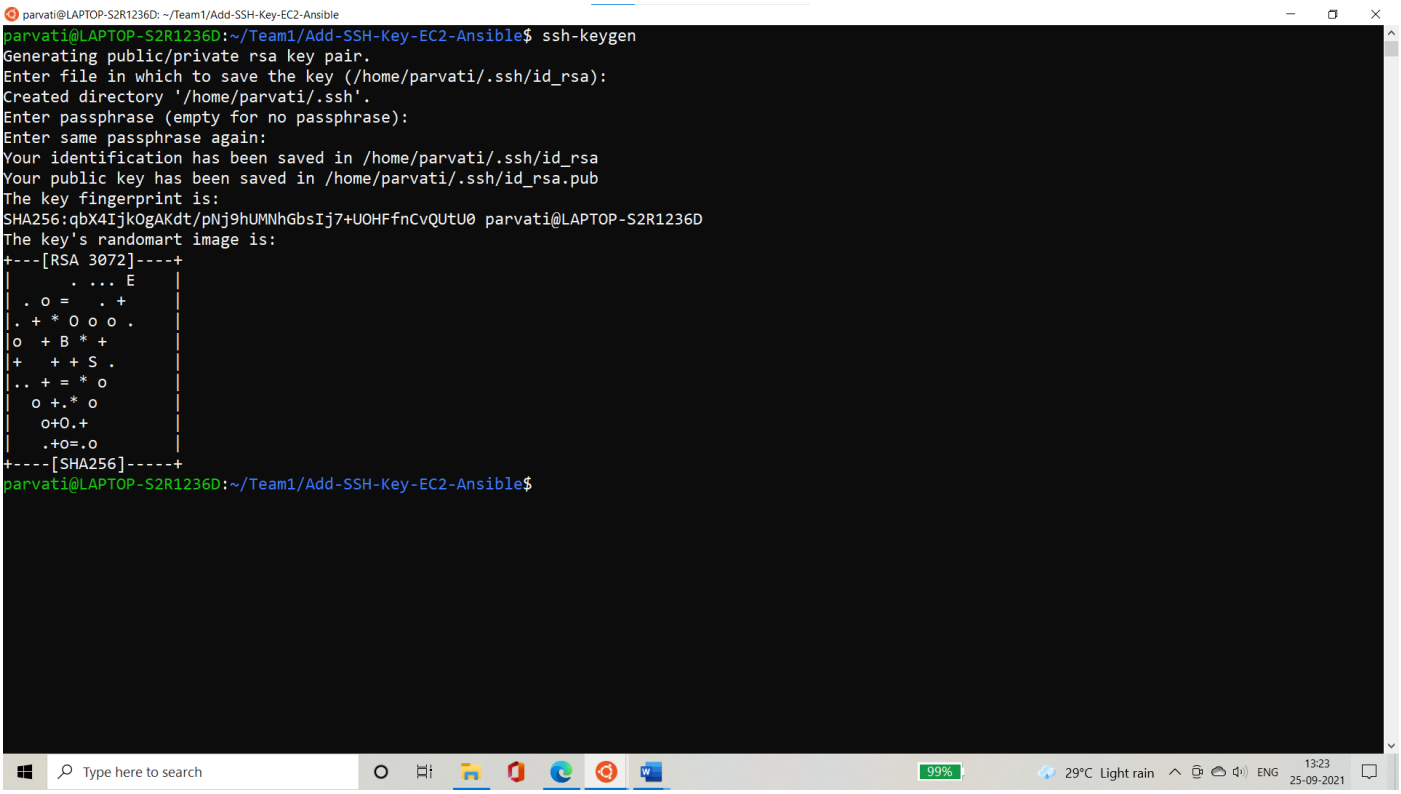
STEP 1: Set up the EC2 instances

Step 1.1: Launch a Red Hat Enterprise Linux served (Example: as server named 'Task_5').

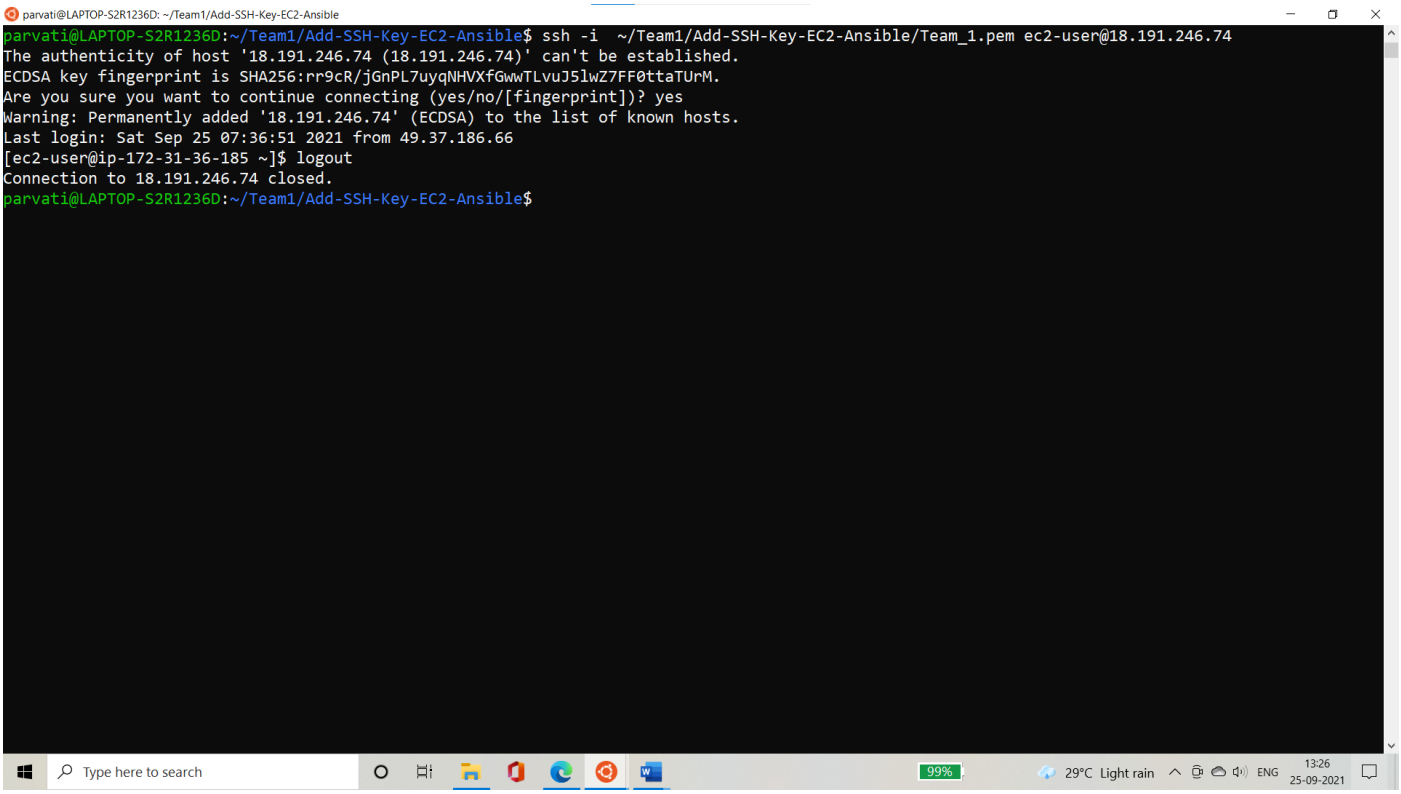
Make sure that port - 22 is open.



Step 1.2: Generate a SSH key.

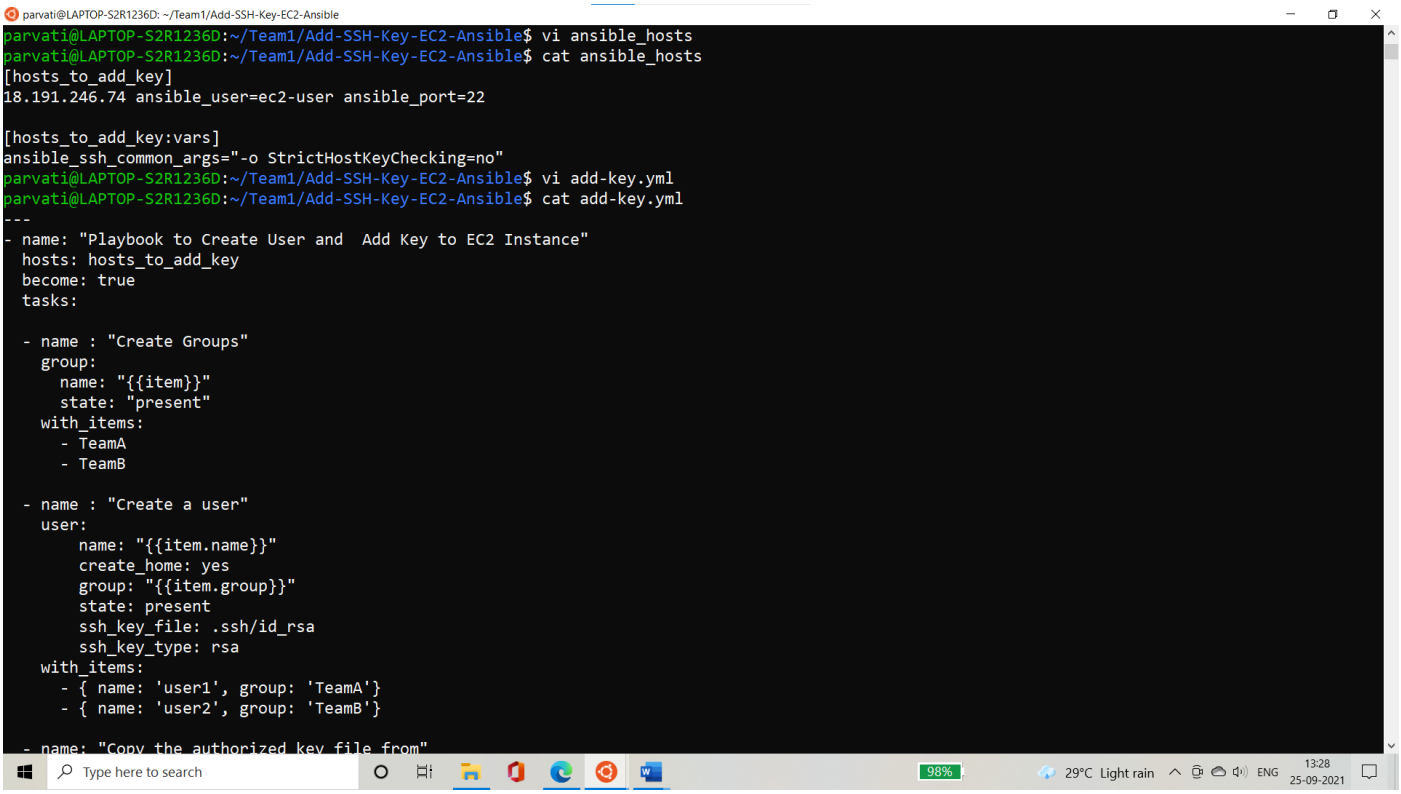


Step 1.3: Make sure that the remote server ‘Task_5’ can be accessed through our local machine.

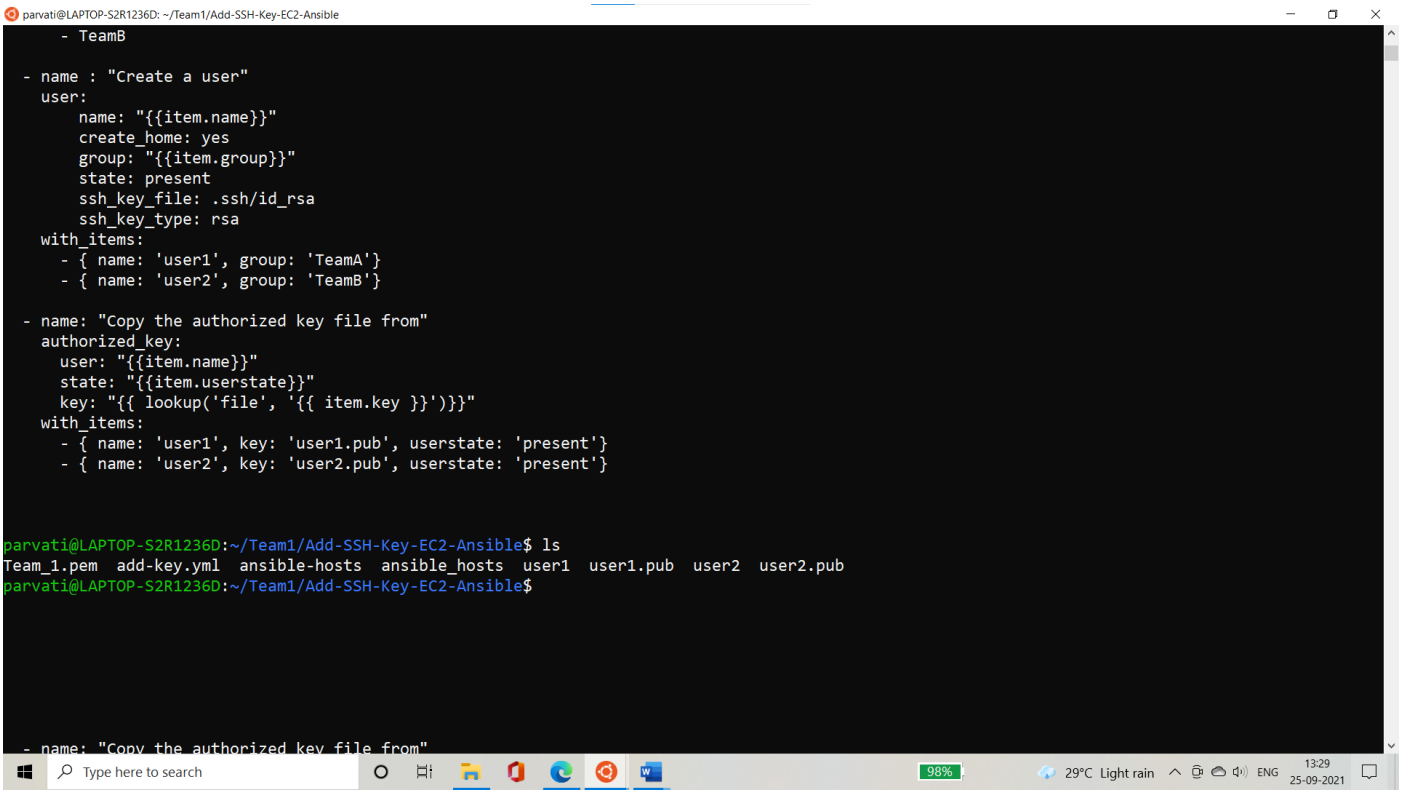


STEP 2: Configure the files required for executing the playbook

Step 2.1: Create the files: ansible_hosts, add-key.yml.



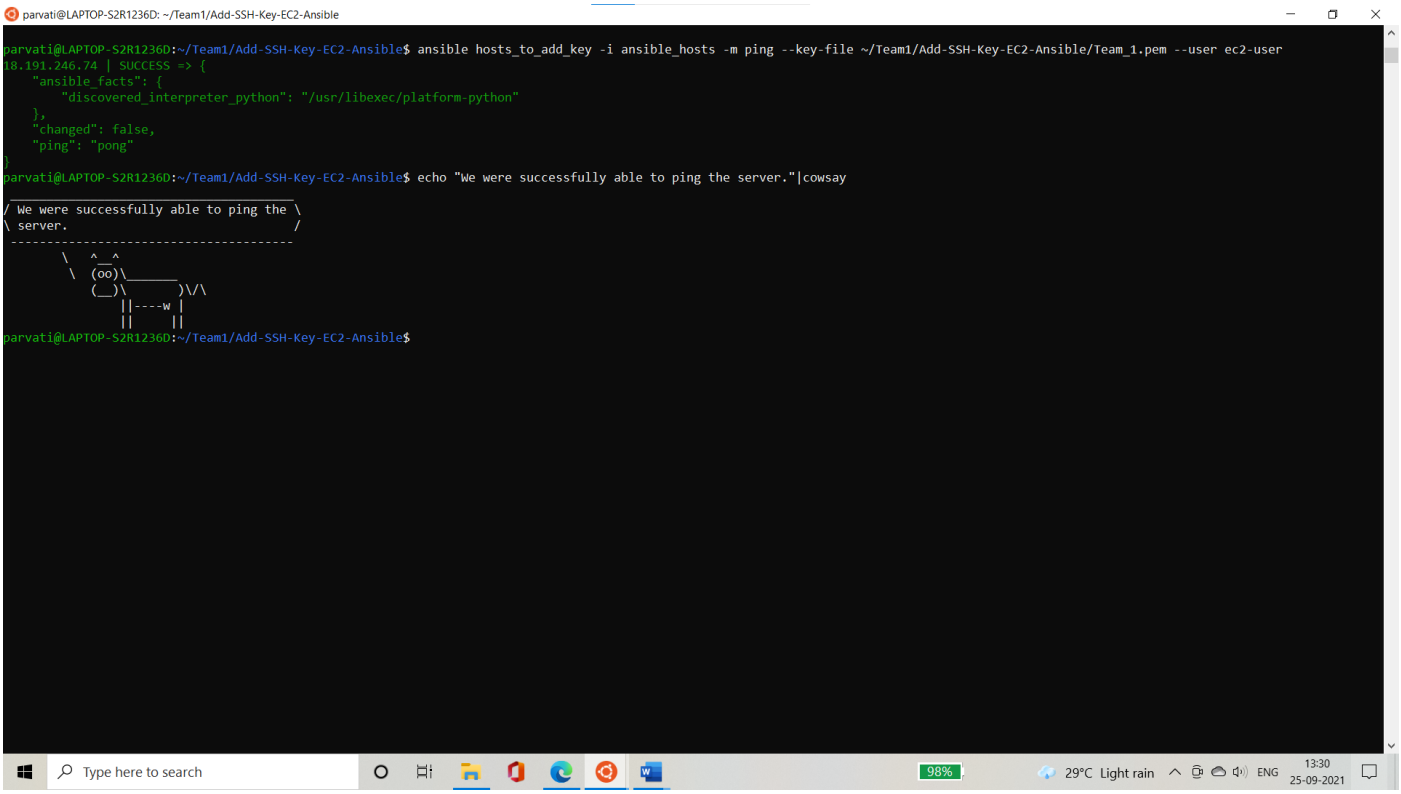
```
parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$ vi ansible_hosts
parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$ cat ansible_hosts
[hosts_to_add_key]
18.191.246.74 ansible_user=ec2-user ansible_port=22

[hosts_to_add_key:vars]
ansible_ssh_common_args="-o StrictHostKeyChecking=no"
parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$ vi add-key.yml
parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$ cat add-key.yml
---
- name: "Playbook to Create User and  Add Key to EC2 Instance"
  hosts: hosts_to_add_key
  become: true
  tasks:

  - name : "Create Groups"
    group:
      name: "{{item}}"
      state: "present"
    with_items:
      - TeamA
      - TeamB

  - name : "Create a user"
    user:
        name: "{{item.name}}"
        create_home: yes
        group: "{{item.group}}"
        state: present
        ssh_key_file: .ssh/id_rsa
        ssh_key_type: rsa
    with_items:
      - { name: 'user1', group: 'TeamA'}
      - { name: 'user2', group: 'TeamB'}

  - name: "Copy the authorized key file from"
```

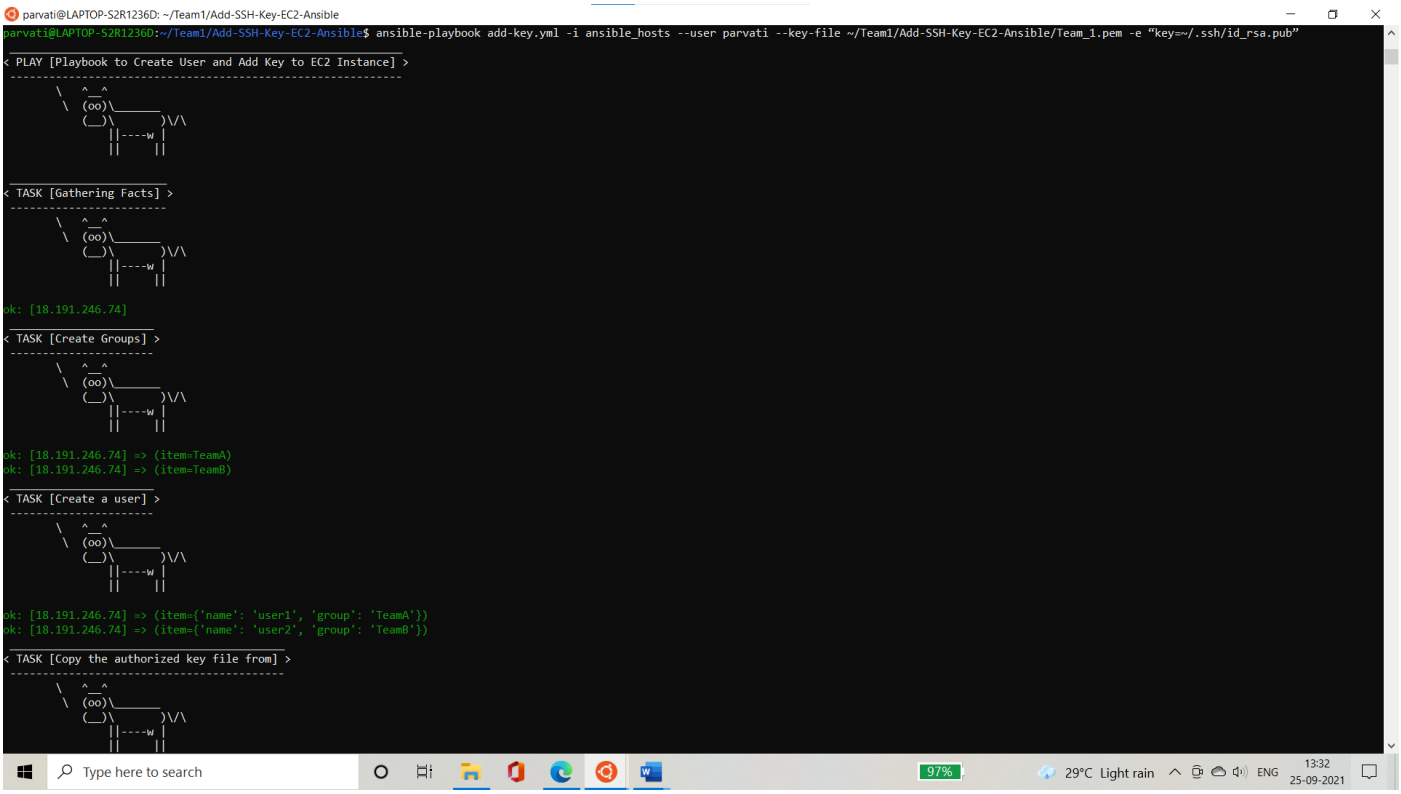
```
      - TeamB

  - name : "Create a user"
    user:
        name: "{{item.name}}"
        create_home: yes
        group: "{{item.group}}"
        state: present
        ssh_key_file: .ssh/id_rsa
        ssh_key_type: rsa
    with_items:
      - { name: 'user1', group: 'TeamA'}
      - { name: 'user2', group: 'TeamB'}

  - name: "Copy the authorized key file from"
    authorized_key:
      user: "{{item.name}}"
      state: "{{item.userstate}}"
      key: "{{ lookup('file', '{{ item.key }}')}}"
    with_items:
      - { name: 'user1', key: 'user1.pub', userstate: 'present'}
      - { name: 'user2', key: 'user2.pub', userstate: 'present'}



parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$ ls
Team_1.pem  add-key.yml  ansible-hosts  ansible_hosts  user1  user1.pub  user2  user2.pub
parvati@LAPTOP-S2R1236D:~/Team1/Add-SSH-Key-EC2-Ansible$

  - name: "Copy the authorized key file from"
```

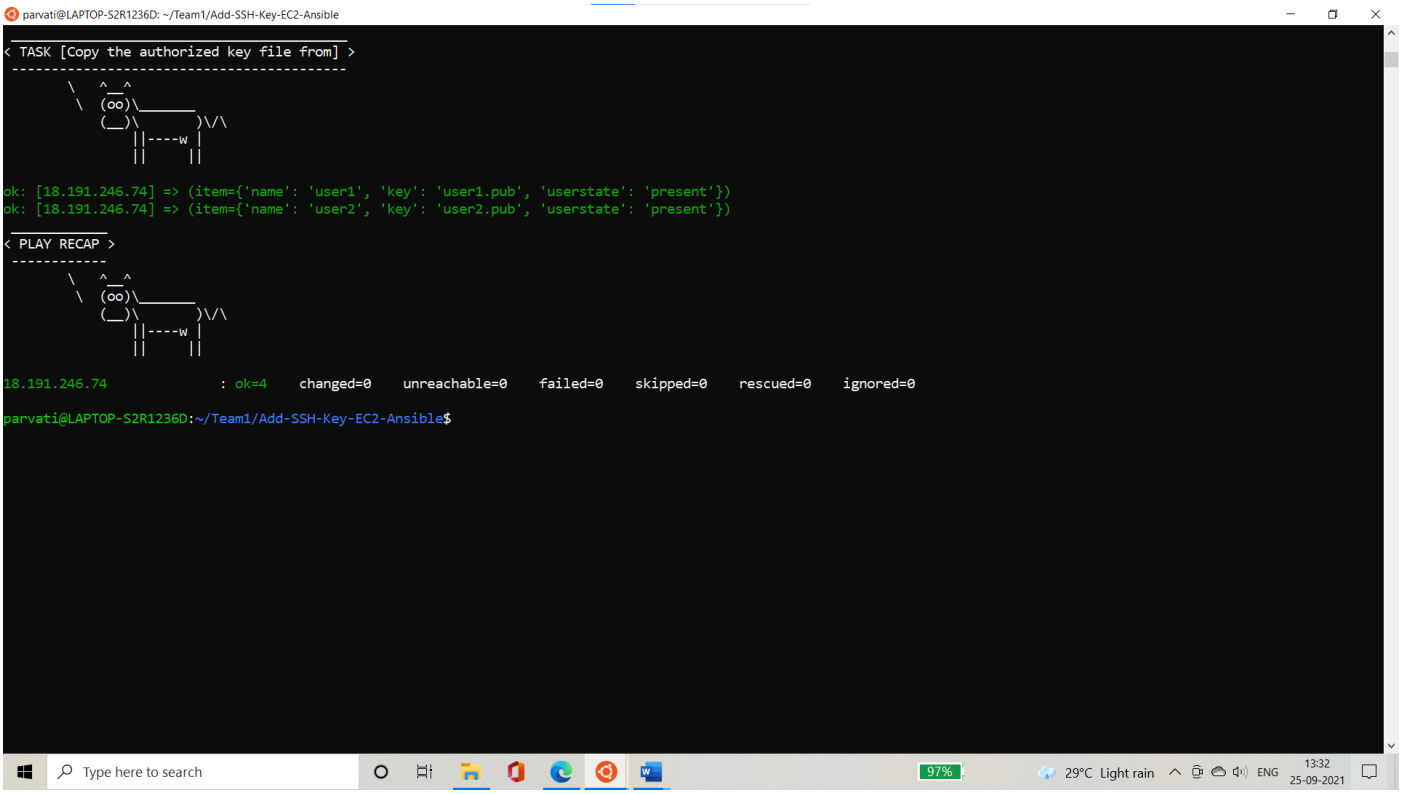
STEP 3: Execute the playbook

Step 3.1: Ping to check if the connection is successful

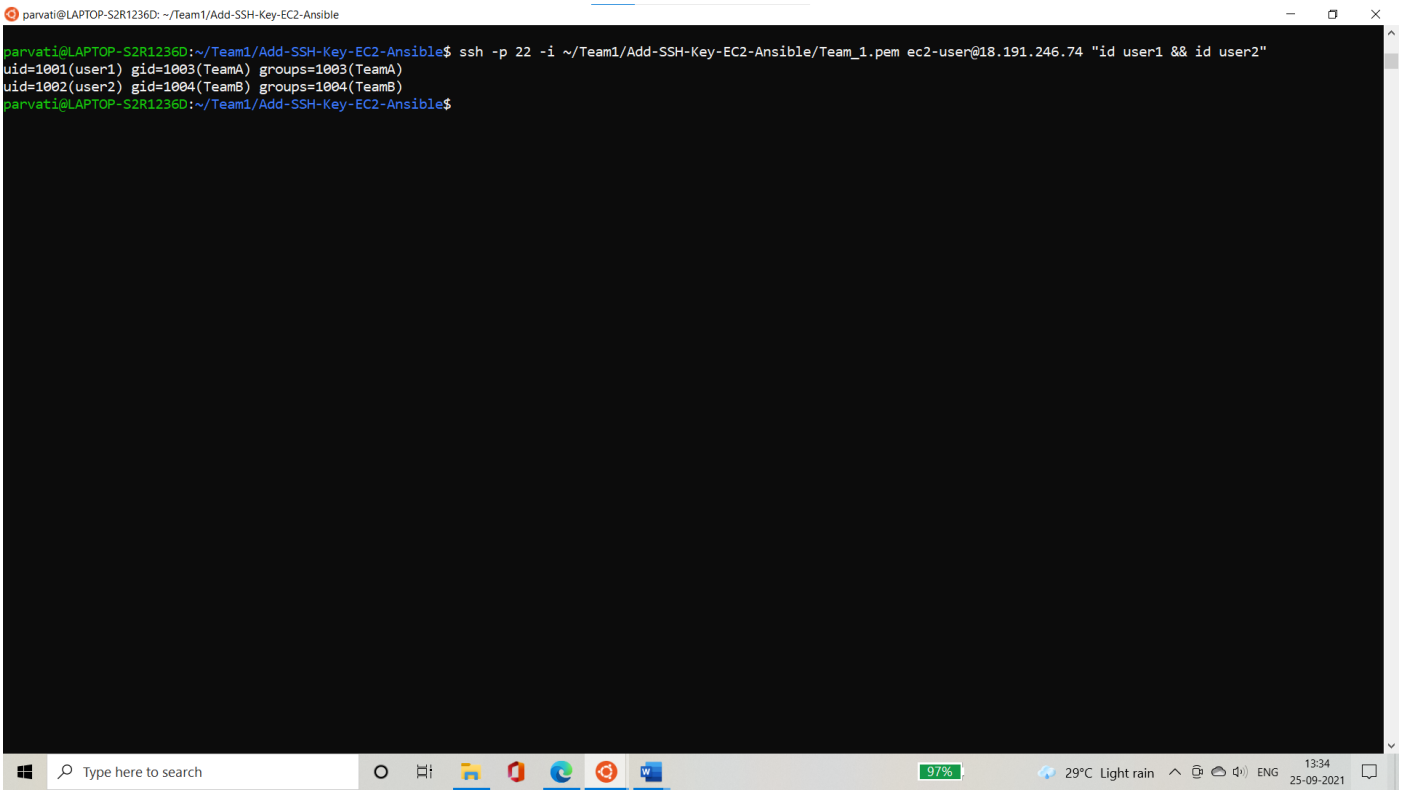


Step 3.2: Use the command ansible-playbook to execute add-key.yml



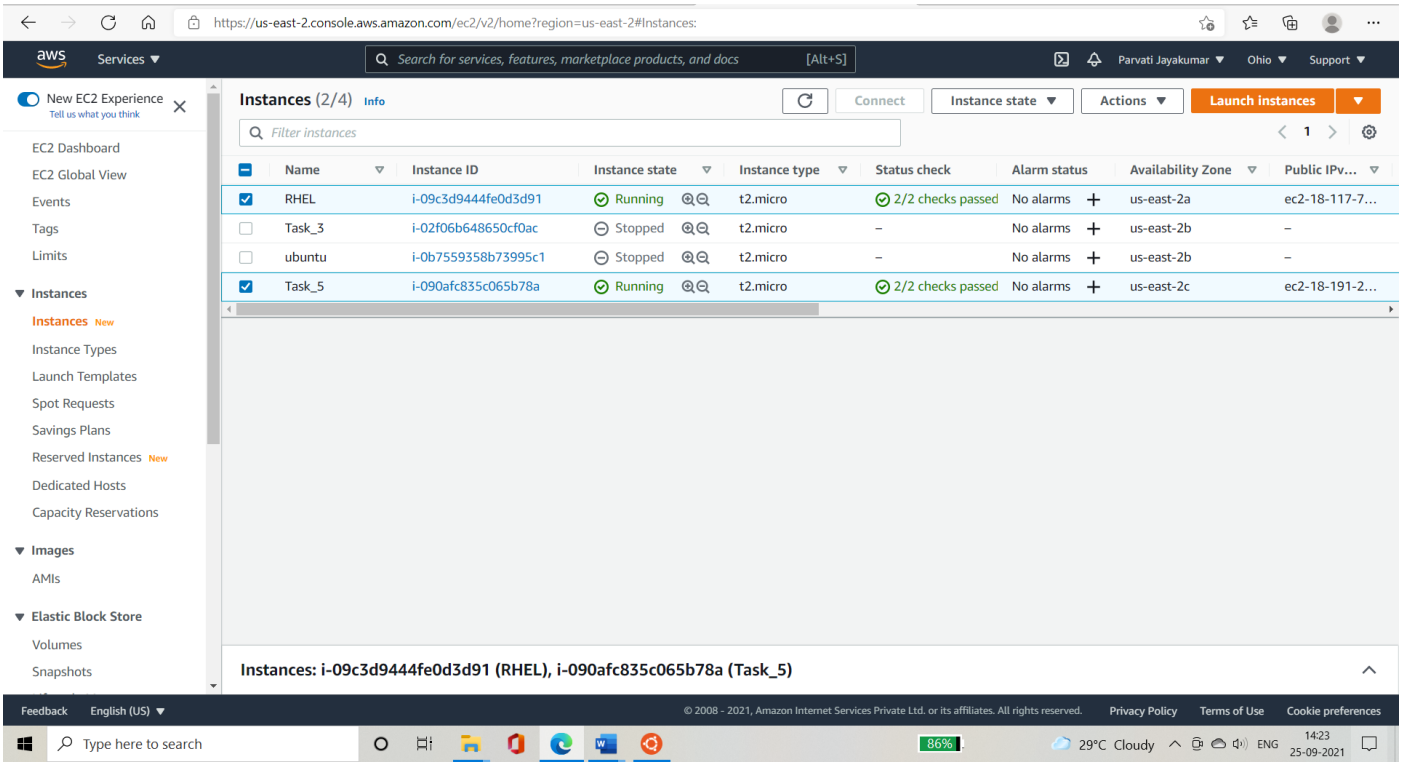


Step 3.3: Validate the results using ssh and public ip of the instance.

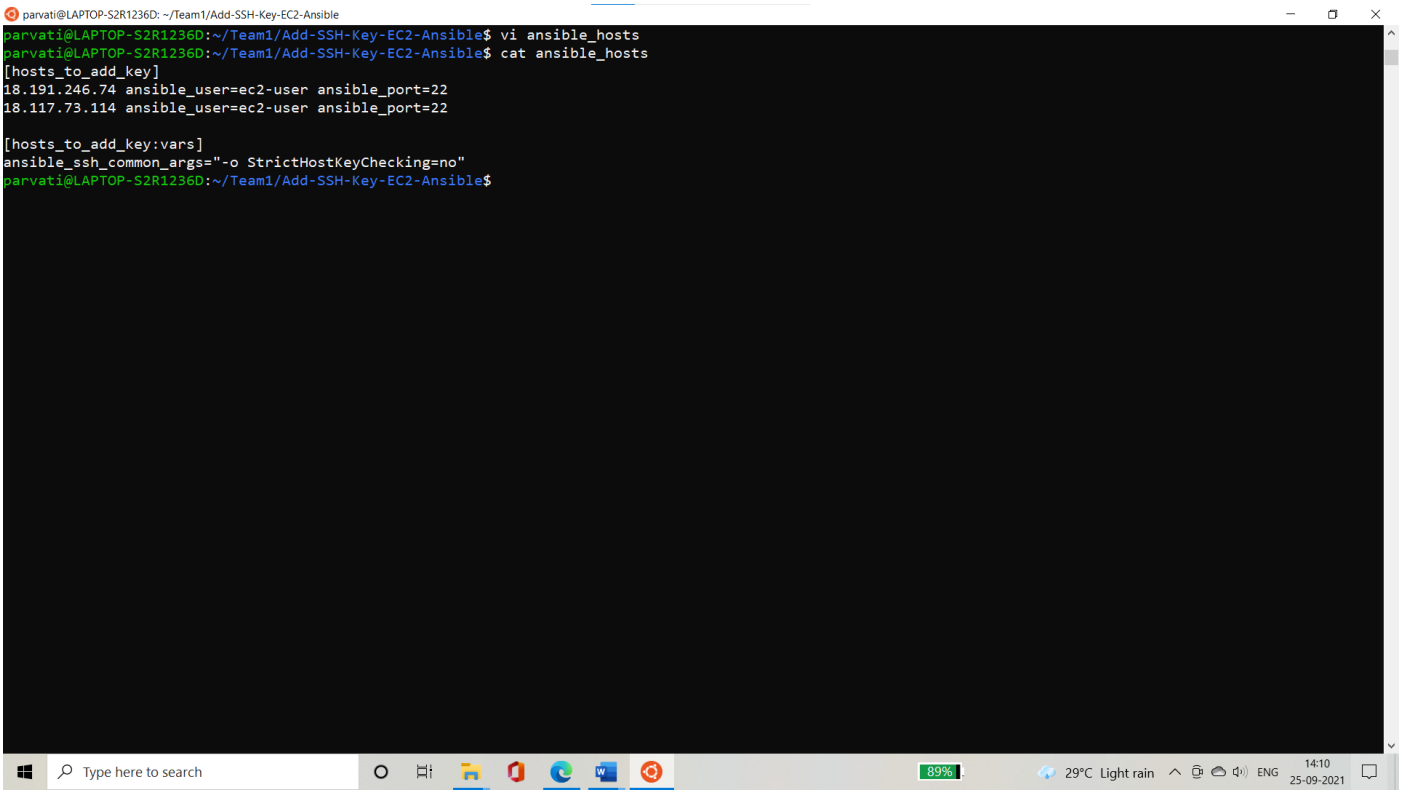


STEP 4: You can also try to add users to multiple instances by giving multiple hosts.

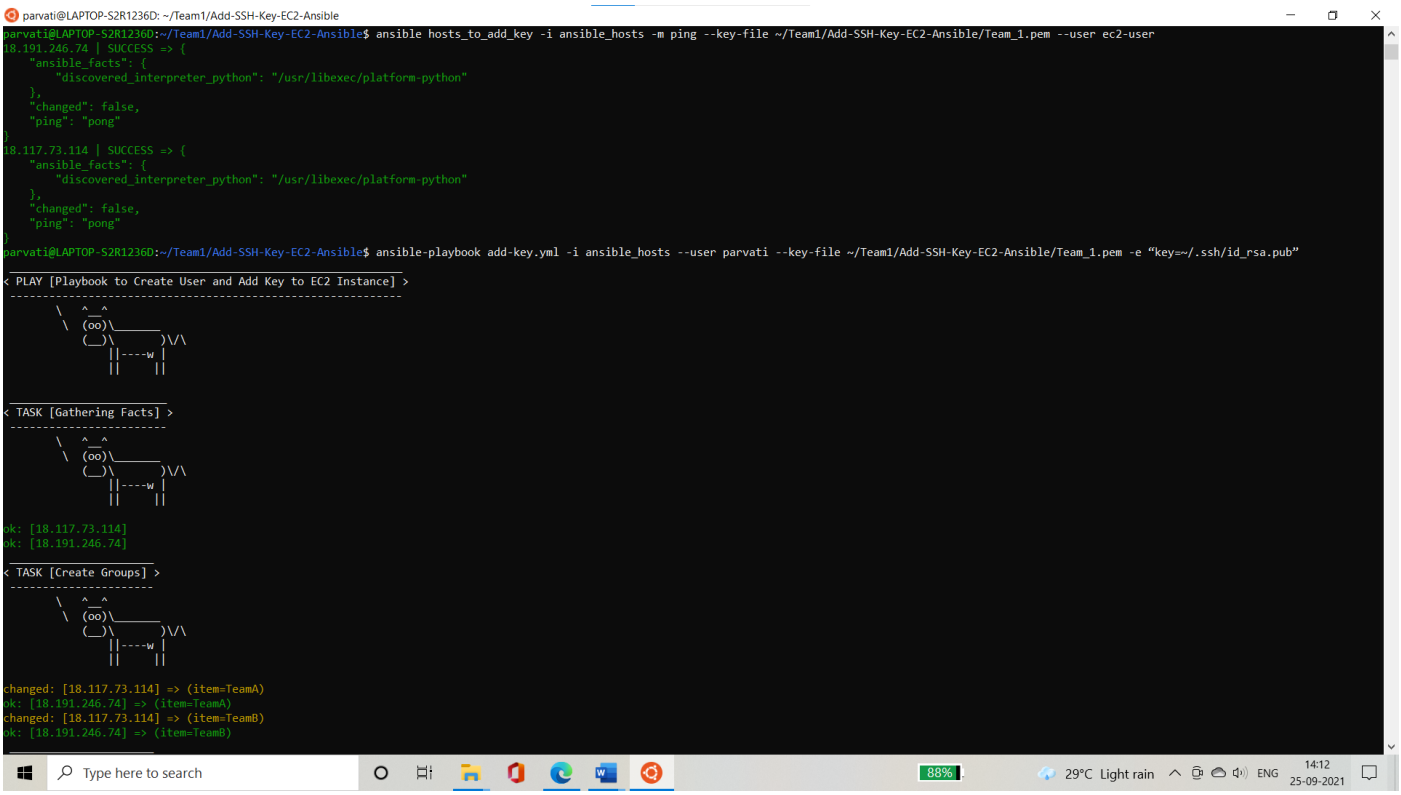
Step 4.1: Launch a new instance (Example: RHEL)

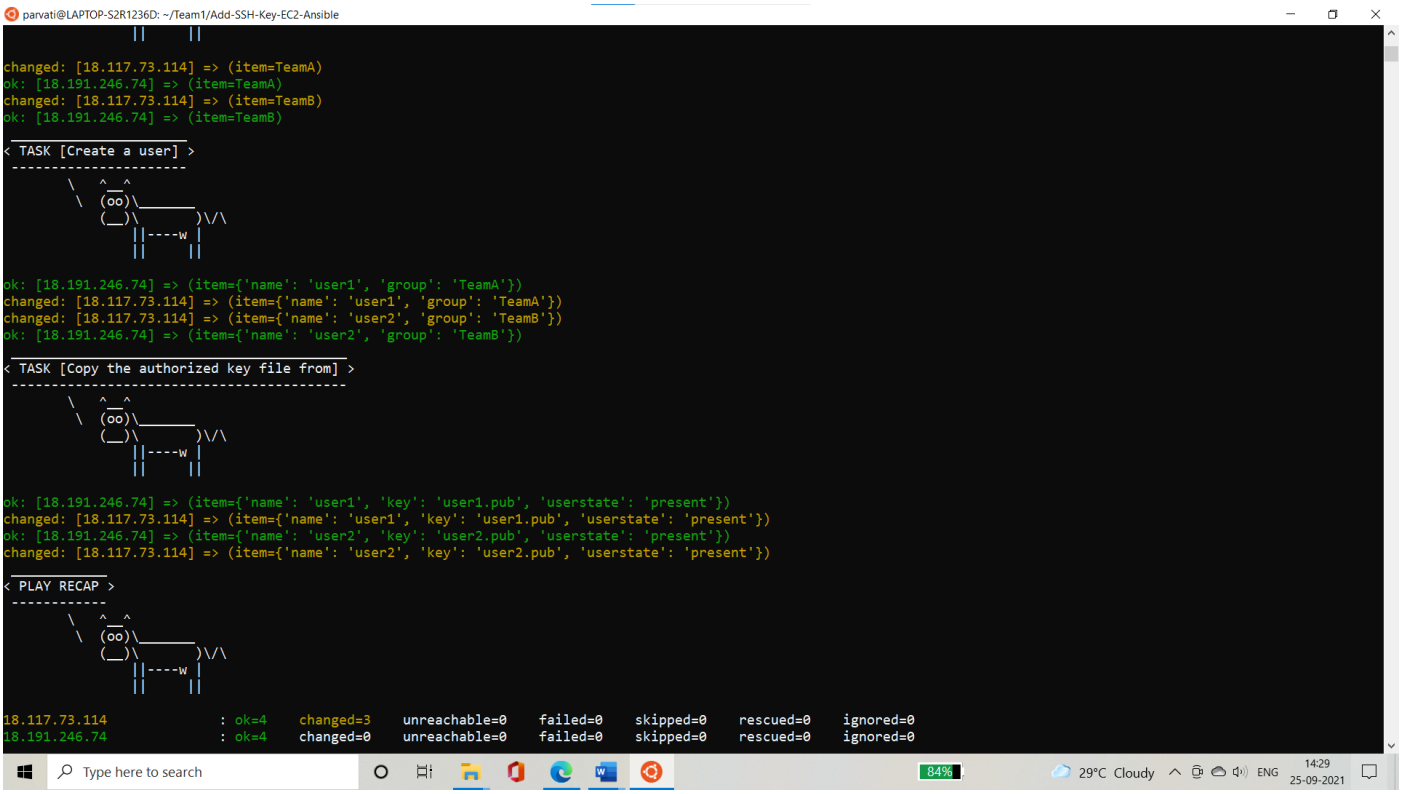


Step 4.2: Configure ansible_hosts file

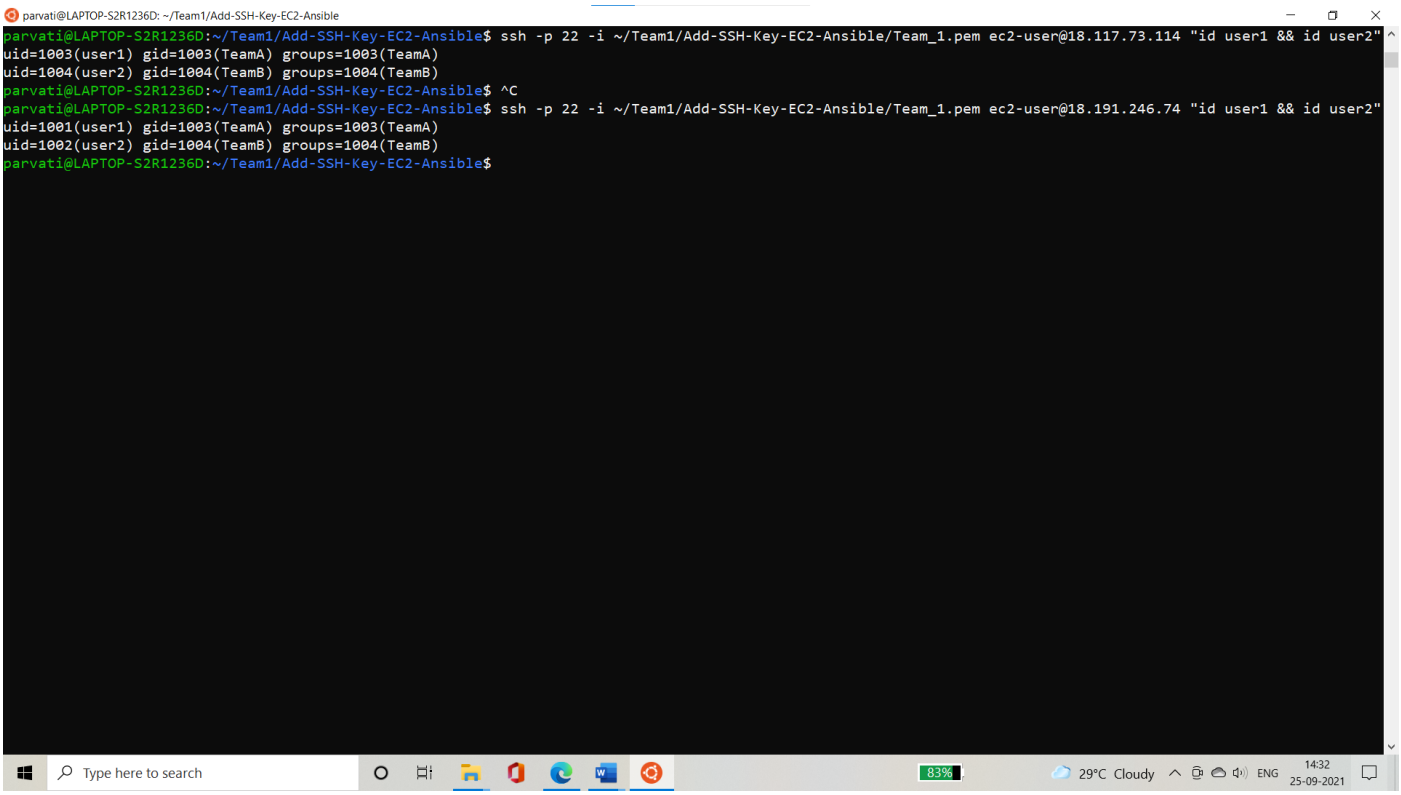


Step 4.3: Execute the YAML file





Step 4.4: Validate the results by checking users in both the instances using ssh and public ip .



REFERENCES

- https://www.middlewareinventory.com/blog/add-users-to-ec2-instances-with-ssh-access-ansible/
- https://youtu.be/EGWyN6DMI1g
- https://youtu.be/kfWfj76-am8