

Assignment-3 Add users to EC2 instance with SSH access using ansible

The task consists of 2 steps:

- 1.Create a new user account on all these EC2 instances for the user.
- 2.Copy the user's SSH public key into the newly created account for them to login without a password

1. Configuring the host file with multiple hosts

Creating a host group named `hosts_to_add_key` with host ip address,username.

```
[hosts_to_add_key]
```

```
172.99.1.82 ansible_user=ec2-user ansible_port=22
```

```
172.99.1.56 ansible_user=ec2-user ansible_port=22
```

```
[hosts_to_add_key:vars]
```

```
ansible_ssh_common_args="-o StrictHostKeyChecking=no"
```

2. Checking if the host are available

```
Select harshitha@DESKTOP-D1349KB: ~/Team8_devops
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ansible hosts_to_add_key -m ping
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'
[WARNING]: Could not match supplied host pattern, ignoring: hosts_to_add_key
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ansible hosts_to_add_key -m ping -i ansible_hosts
18.221.249.41 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: load pubkey \"/home/harshitha/.ssh/id_rsa\": invalid format\r\nharshitha@18.221.249.41: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).",
  "unreachable": true
}
3.137.204.136 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: load pubkey \"/home/harshitha/.ssh/id_rsa\": invalid format\r\nWarning: Permanently added '3.137.204.136' (ECDSA) to the list of known hosts.\r\nharshitha@3.137.204.136: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).",
  "unreachable": true
}
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ls
add-key.yml  ansible_hosts  keypair  keypair.pem
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ansible hosts_to_add_key -m ping -i ansible_hosts -i keypair.pem
[WARNING]: * Failed to parse /home/harshitha/Team8_devops/keypair.pem with ini plugin: /home/harshitha/Team8_devops/keypair.pem:1: Expected key=value host variable assignment, got: RSA
[WARNING]: Unable to parse /home/harshitha/Team8_devops/keypair.pem as an inventory source
3.137.204.136 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: load pubkey \"/home/harshitha/.ssh/id_rsa\": invalid format\r\nharshitha@3.137.204.136: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).",
  "unreachable": true
}
18.221.249.41 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: load pubkey \"/home/harshitha/.ssh/id_rsa\": invalid format\r\nharshitha@18.221.249.41: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).",
  "unreachable": true
}
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ansible hosts_to_add_key -m ping -i ansible_hosts --user ec2-user --key-file keypair.pem
[WARNING]: Platform linux on host 18.221.249.41 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
18.221.249.41 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
[WARNING]: Platform linux on host 3.137.204.136 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
3.137.204.136 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
harshitha@DESKTOP-D1349KB:~/Team8_devops$
```

3.Playbook to add users in Ec2 instance and copy SSH key

Task-1 to create a group of users

Task-2 to create a user and map to a group created in the previous step

Create a keypair for each user

5. Playbook has been executed successfully and the user can log in/SSH now with his private key. I am executing id command with SSH connection and using my private key (akshaya_rsa) file to login without password.

```
harshitha@DESKTOP-D1349KB: ~/Team8_devops
18.216.105.64 : ok=4 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
18.217.6.207 : ok=4 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

harshitha@DESKTOP-D1349KB:~/Team8_devops$ ssh -i ~/.ssh/harshitha_rsa harshitha@18.217.6.207 "id harshitha"
uid=1001(harshitha) gid=1001(adminteam) groups=1001(adminteam)
harshitha@DESKTOP-D1349KB:~/Team8_devops$ ansible-playbook add-key-private.yml -i ansible_hosts_private --key-file=keypair.pem -e "random=~/.ssh/akshaya_rsa"
[WARNING]: * Failed to parse /home/harshitha/Team8_devops/ansible_hosts_private with yaml plugin: Syntax Error while loading YAML. did not find expected <document start> The error appears to be in
/home/harshitha/Team8_devops/ansible_hosts_private: line 2, column 1, but may be elsewhere in the file depending on the exact syntax problem. The offending line appears to be: [hosts_to_add_key_private]
18.217.6.207 ansible_user=ec2-user ansible_port=22 ^ here
[WARNING]: * Failed to parse /home/harshitha/Team8_devops/ansible_hosts_private with ini plugin: /home/harshitha/Team8_devops/ansible_hosts_private:6: Section [hosts_to_add_key:vars] not valid for undefined
group: hosts_to_add_key
[WARNING]: Unable to parse /home/harshitha/Team8_devops/ansible_hosts_private as an inventory source
[WARNING]: No inventory was parsed, only implicit localhost is available
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'

PLAY [Playbook to Create User and Add Key to EC2 Instance] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 18.216.105.64 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
ok: [18.216.105.64]
[WARNING]: Platform linux on host 18.217.6.207 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
ok: [18.217.6.207]

TASK [Create Groups] *****
ok: [18.216.105.64] => (item=adminteam)
ok: [18.217.6.207] => (item=adminteam)
ok: [18.217.6.207] => (item=devopsteam)
ok: [18.216.105.64] => (item=devopsteam)

TASK [Create a user] *****
ok: [18.216.105.64] => (item={'name': 'harshitha', 'group': 'adminteam'})
ok: [18.217.6.207] => (item={'name': 'harshitha', 'group': 'adminteam'})
ok: [18.216.105.64] => (item={'name': 'akshaya', 'group': 'devopsteam'})
ok: [18.217.6.207] => (item={'name': 'akshaya', 'group': 'devopsteam'})

TASK [Copy the authorized key file from] *****
ok: [18.216.105.64] => (item={'name': 'harshitha', 'key': '~/.ssh/harshitha_rsa.pub', 'userstate': 'present'})
ok: [18.217.6.207] => (item={'name': 'harshitha', 'key': '~/.ssh/harshitha_rsa.pub', 'userstate': 'present'})
ok: [18.216.105.64] => (item={'name': 'akshaya', 'key': '~/.ssh/akshaya_rsa.pub', 'userstate': 'present'})
ok: [18.217.6.207] => (item={'name': 'akshaya', 'key': '~/.ssh/akshaya_rsa.pub', 'userstate': 'present'})

PLAY RECAP *****
18.216.105.64 : ok=4 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
18.217.6.207 : ok=4 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

harshitha@DESKTOP-D1349KB:~/Team8_devops$ ssh -i ~/.ssh/akshaya_rsa akshaya@18.217.6.207 "id akshaya"
uid=1002(akshaya) gid=1002(devopsteam) groups=1002(devopsteam)
harshitha@DESKTOP-D1349KB:~/Team8_devops$
```

Account has been created successfully.