St. Francis Institute of Technology
Department of Computer Engineering

Five Days Student Development Programme

on

DevOps

(28th June to 2nd July 2021)

Assignment 03: **Ansible**

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1. **Launch two virtual machines having ubuntu and connect them over the same network.**
2. **Install Ansible on one of the machines**
3. **Write Ansible playbook for the following tasks**
    - **Install packages like {postgress-sql, Nginx} on the other machine**
    - **Create a username “yourname” in the remote machine**
    - **Create a folder name “your_Roll_no” in the home directory**
    - **Uninstall the nano service on a remote machine.**
    - **Take screenshots of the playbook and the play in execution**
    - **Name the play in the playbook as yourname-rollno**
4. **Take screenshots of all the steps and prepare a report for the same.**
5. **Upload the Ansible Playbook in the GitHub Repository you created in the first task**

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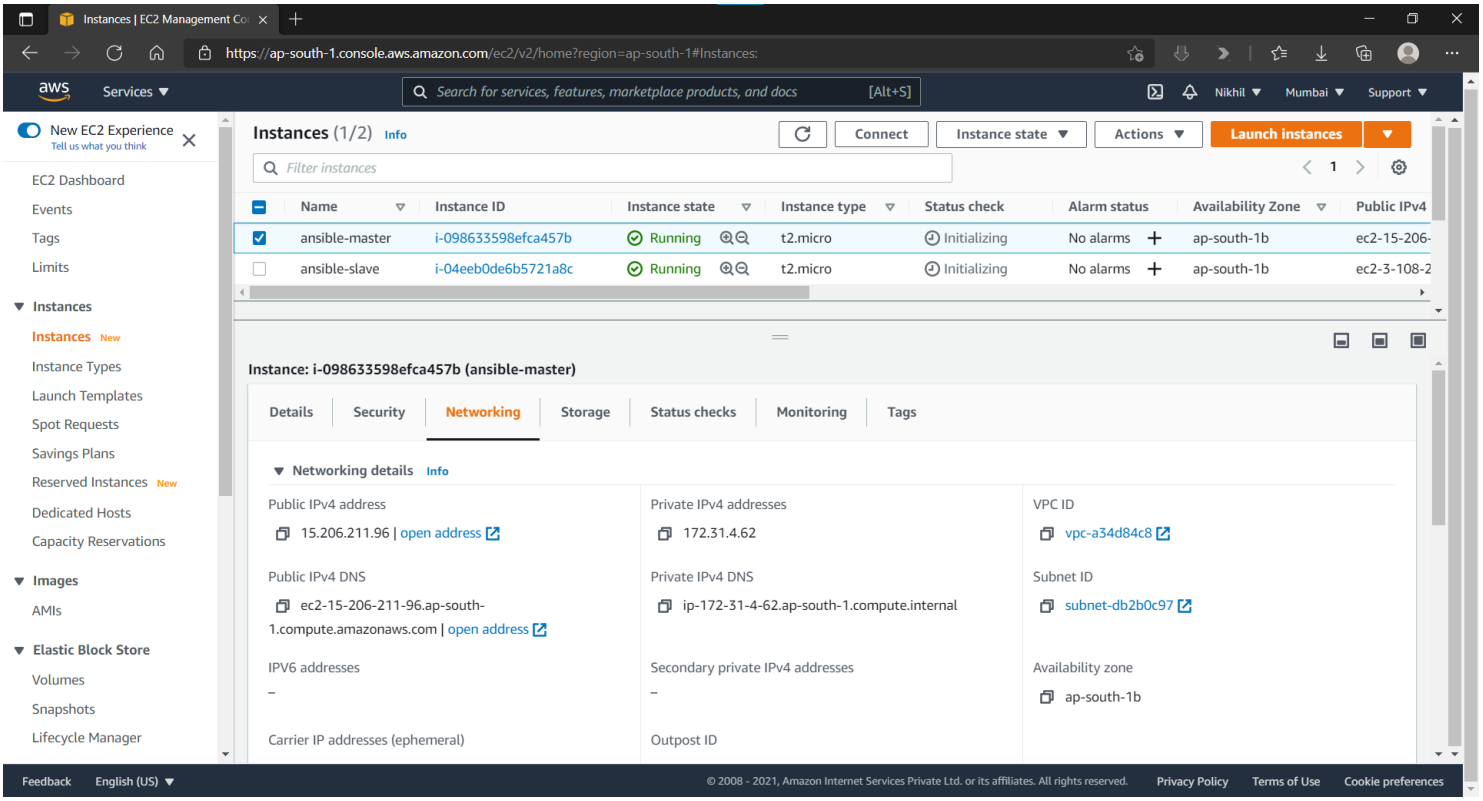
NAME: Saravana sundar Nadar
ROLL NO: 72
PARTICIPANT ENROLLMENT ID: 192072
CLASS: SE CMPN A

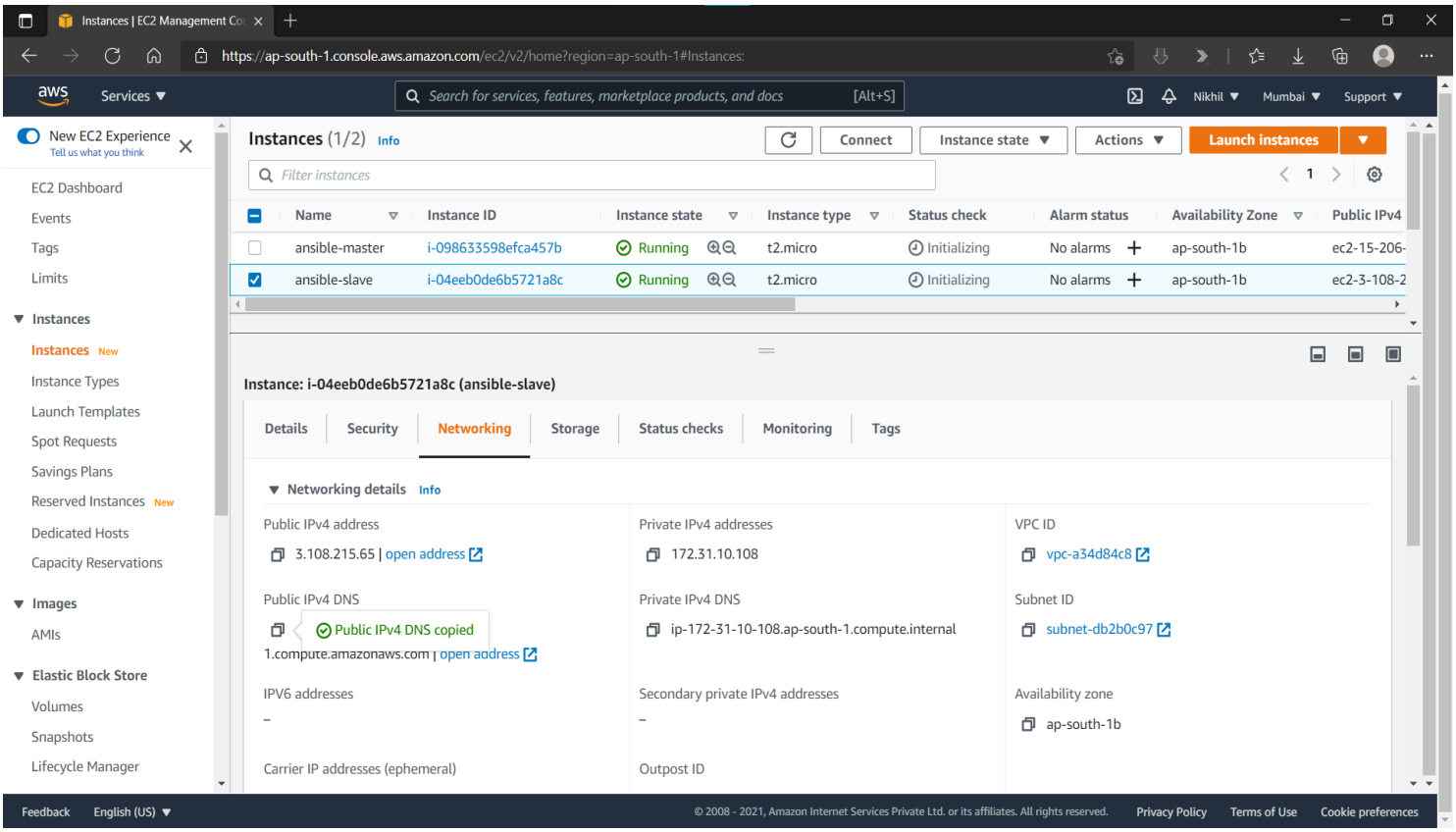
➥ **Github Link for Ansible Playbook -**

https://github.com/saravana-sn/Saravana-sundar-192072/blob/master/playbook-192072.yml

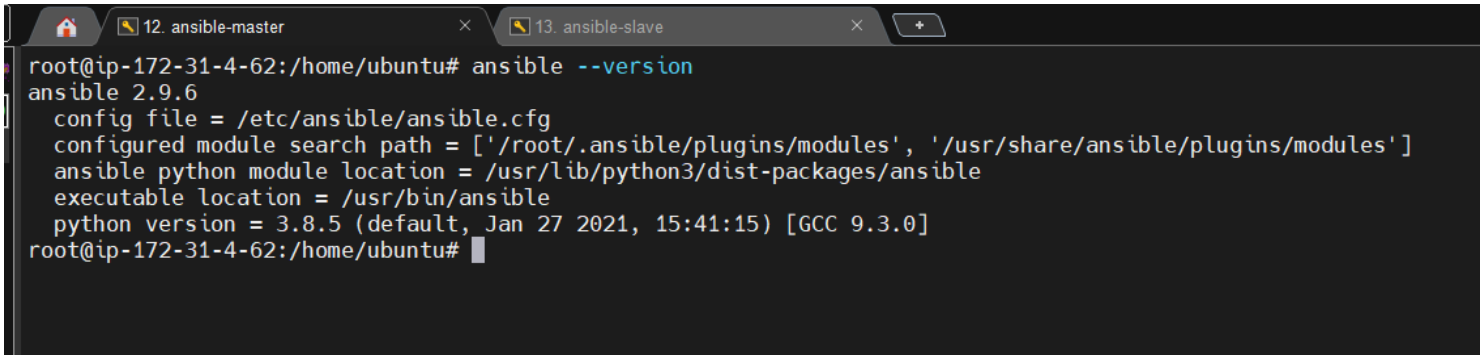
ANSIBLE

1.Launching two virtual ubuntu Machines using amazon aws EC2 instances.

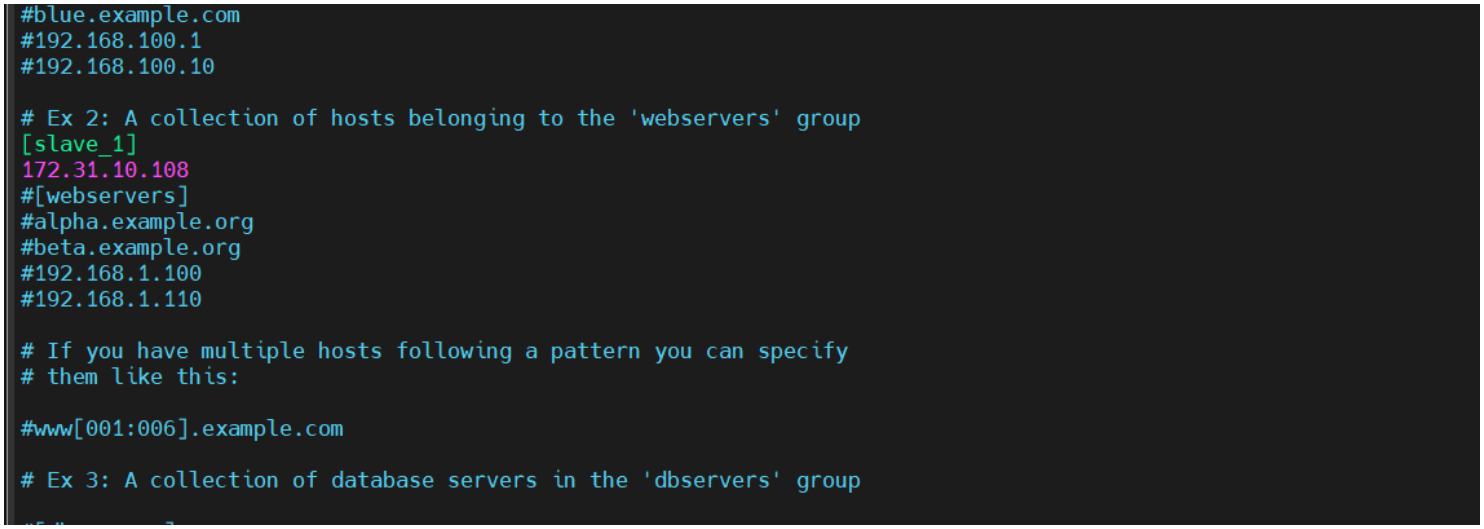


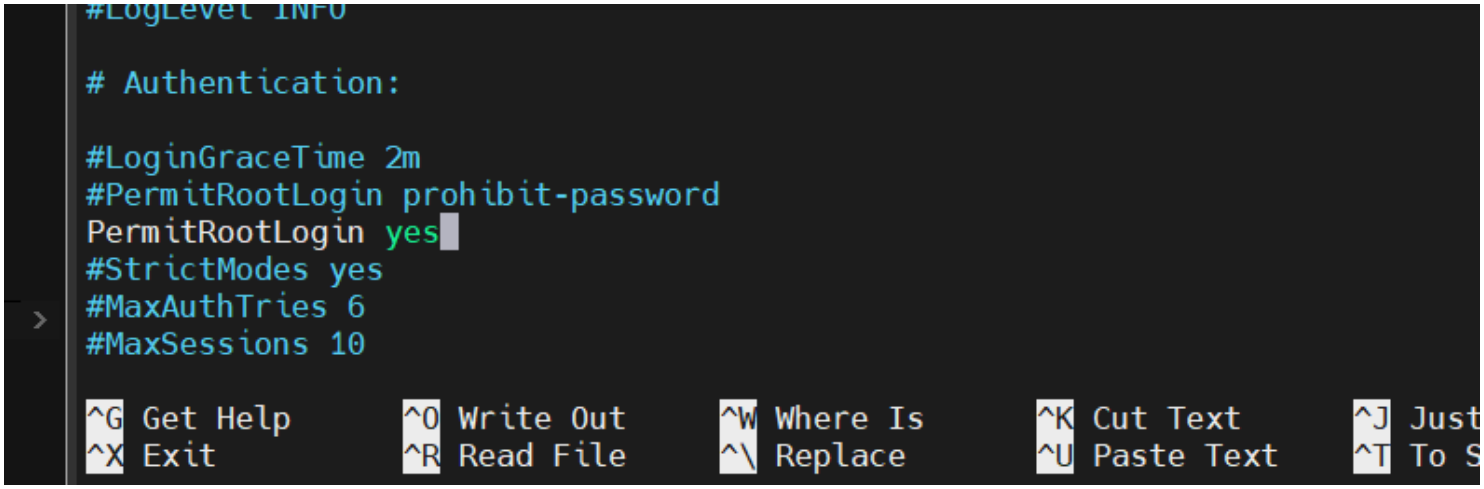


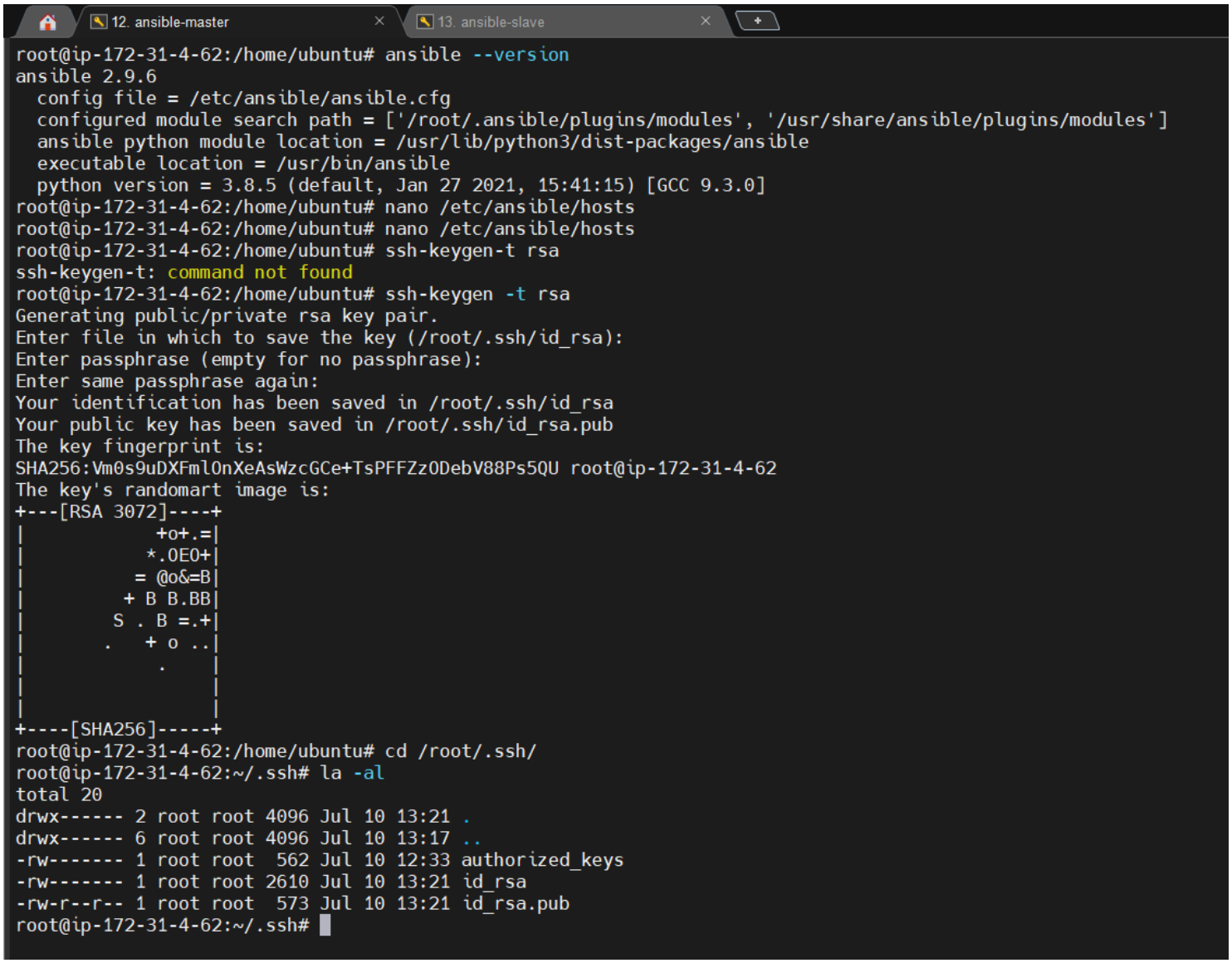
2. Installing Ansible on one of the machines - [ansible-master]

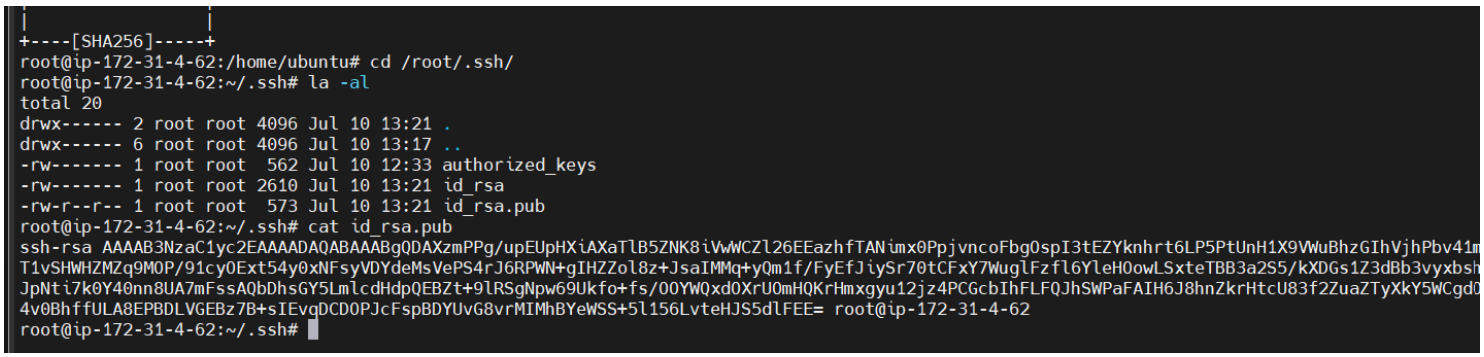


➥ Configuring both master and slave machines to connect with each other using SSH connection.






12. ansible-master
13. ansible-slave
root@ip-172-31-4-62:/home/ubuntu# ansible --version
ansible 2.9.6
config file = /etc/ansible/ansible.cfg
configured module search path = ['/root/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
ansible python module location = /usr/lib/python3/dist-packages/ansible
executable location = /usr/bin/ansible
python version = 3.8.5 (default, Jan 27 2021, 15:41:15) [GCC 9.3.0]
root@ip-172-31-4-62:/home/ubuntu# nano /etc/ansible/hosts
root@ip-172-31-4-62:/home/ubuntu# nano /etc/ansible/hosts
root@ip-172-31-4-62:/home/ubuntu# ssh-keygen-t rsa
ssh-keygen-t: command not found
root@ip-172-31-4-62:/home/ubuntu# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa
Your public key has been saved in /root/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:Vm0s9uDXFmlOnXeAsWzcGCe+TsPFFZzODebV88Ps5QU root@ip-172-31-4-62
The key's randomart image is:
+---[RSA 3072]----+
| +o+.=|
| *.OEO+|
| = @o&=B|
| + B B.BB|
| S . B =.+|
| .   + o ..|
| . |
| |
| |
+----[SHA256]-----+
root@ip-172-31-4-62:/home/ubuntu# cd /root/.ssh/
root@ip-172-31-4-62:~/.ssh# la -al
total 20
drwx------ 2 root root 4096 Jul 10 13:21 .
drwx------ 6 root root 4096 Jul 10 13:17 ..
-rw------- 1 root root 562 Jul 10 12:33 authorized_keys
-rw------- 1 root root 2610 Jul 10 13:21 id_rsa
-rw-r--r-- 1 root root 573 Jul 10 13:21 id_rsa.pub
root@ip-172-31-4-62:~/.ssh#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-rw------- 1 root root 562 Jul 10 12:33 authorized_keys
-rw------- 1 root root 2610 Jul 10 13:21 id_rsa
-rw-r--r-- 1 root root 573 Jul 10 13:21 id_rsa.pub
root@ip-172-31-4-62:~/.ssh# cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQDAXzmPPg/upEUpHXiAXaTlB5ZNK8iVwWCZl26EEazhfTANimx0PpjvncoFbgOspI3tEZYknhrt6LP5PtUnH1X9VWuBhzGIhVjhPbv41m
T1vSHWHZMZq9MOP/91cyOExt54y0xNFsyVDYdeMsVePS4rJ6RPWN+gIHZZol8z+JsaIMMq+yQm1f/FyEfJiySr70tCFxY7WuglFzfl6YleHOowLSxteTBB3a2S5/kXDGs1Z3dBb3vyxbsh
JpNti7k0Y40nn8UA7mFssAQbDhsGY5LmlcdHdpQEBZt+9lRSgNpw69Ukfo+fs/OOYWQxdOXrUOmHQKrHmxgyu12jz4PCGcbIhFLFQJhSWPaFAIH6J8hnZkrHtcU83f2ZuaZTyXkY5WCgd0
4v0BhffULA8EPBDLVGEBz7B+sIEvqDCDOPJcFspBDYUvG8vrMIMhBYeWSS+5l156LvteHJS5dlFEE= root@ip-172-31-4-62
root@ip-172-31-4-62:~/.ssh#

3. Writing Ansible playbook for following tasks :

- **Install packages like {postgress-sql, Nginx} on the other machine**
- **Create a username “yourname” in the remote machine**
- **Create a folder name “your_Roll_no” in the home directory**
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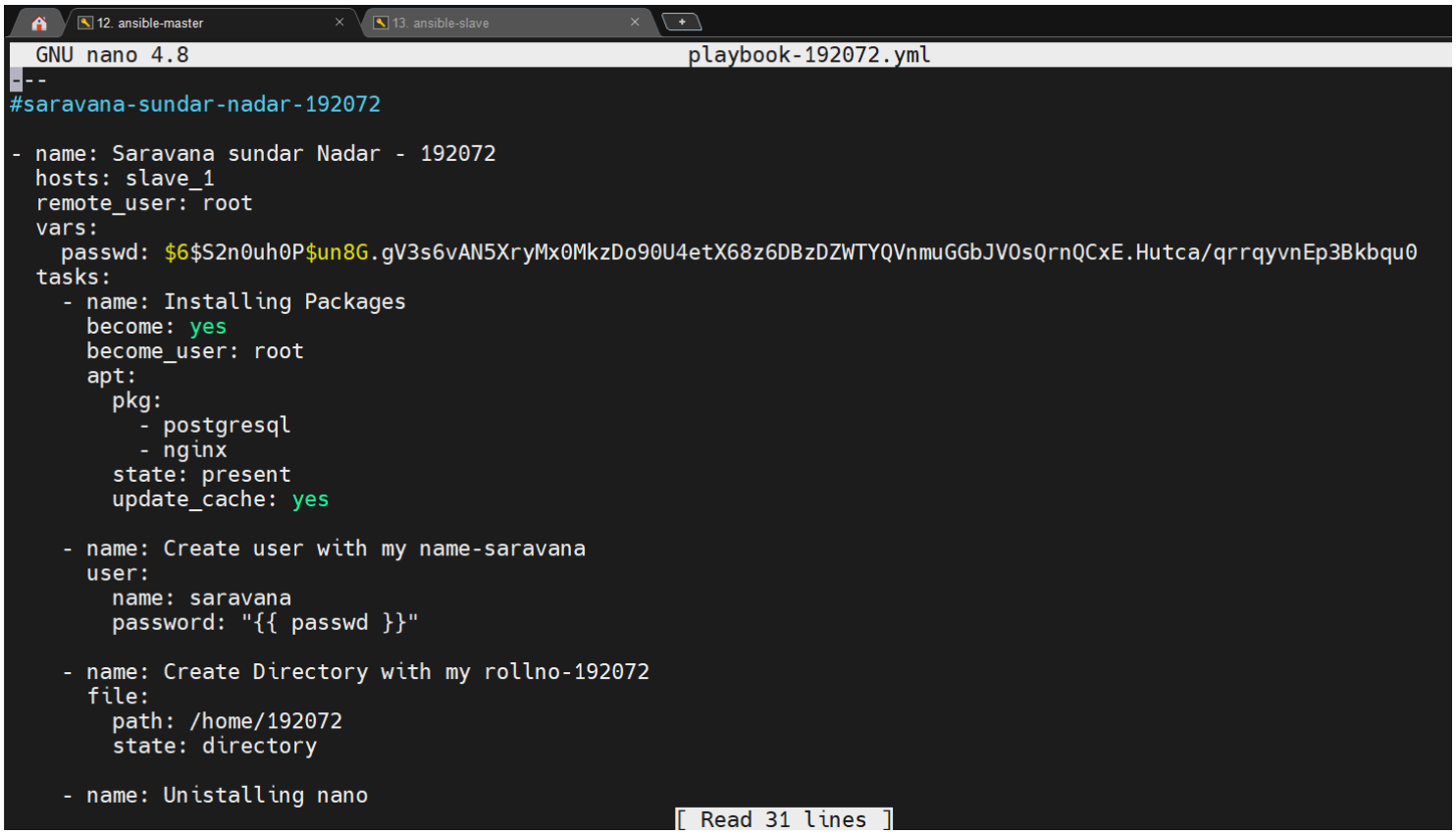
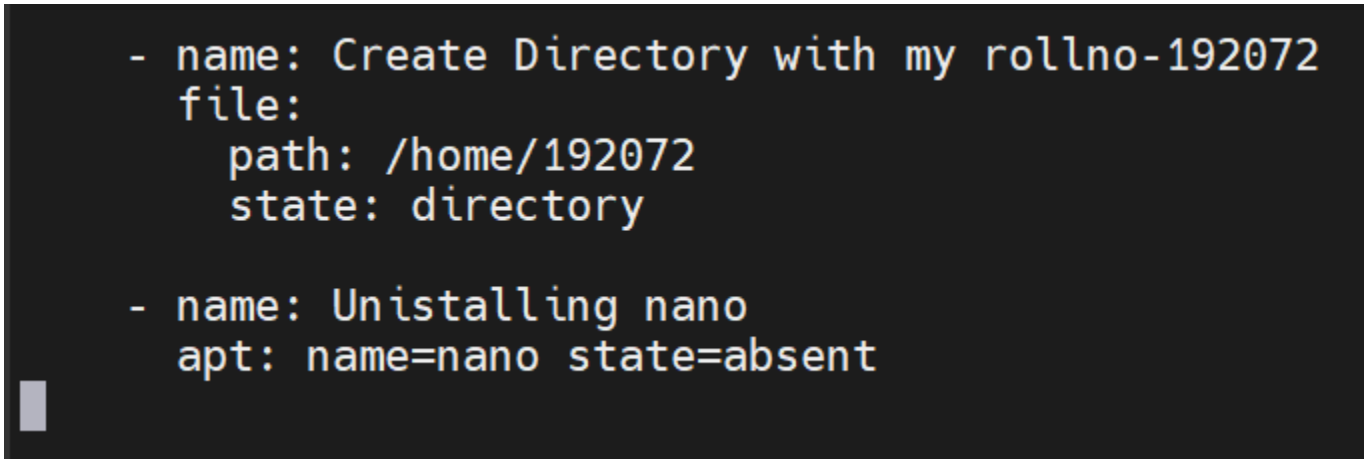
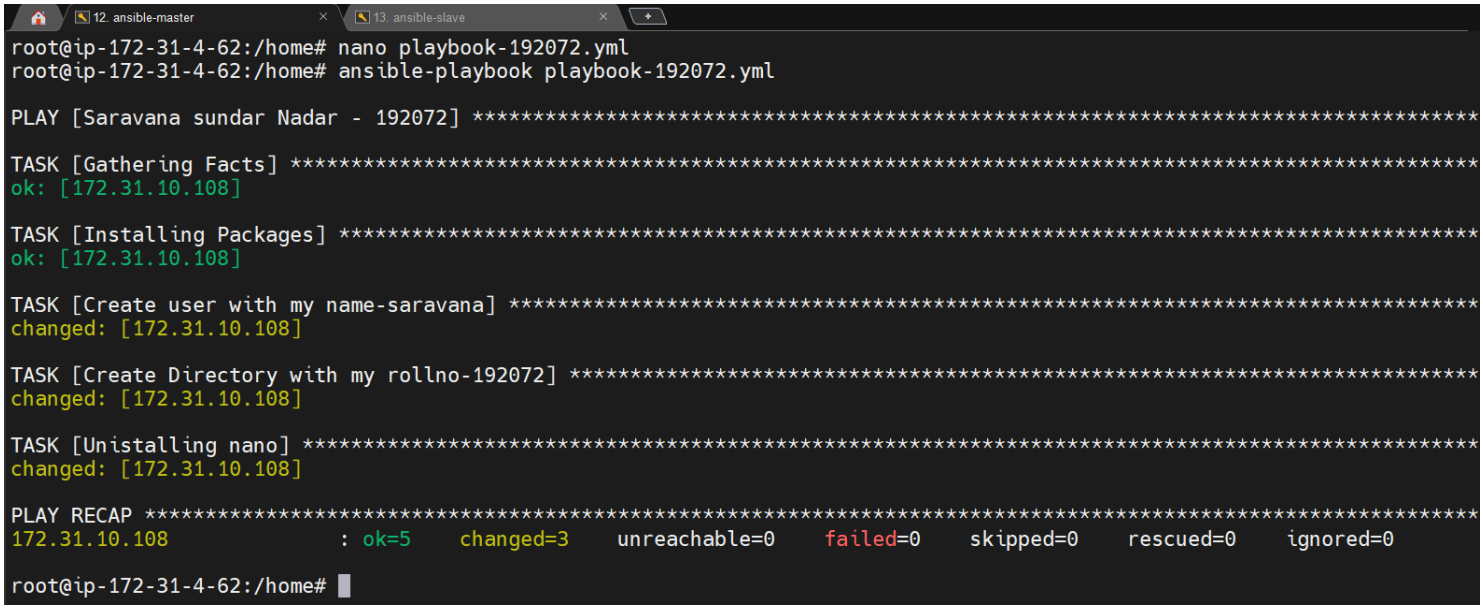

12. ansible-master
13. ansible-slave
GNU nano 4.8 playbook-192072.yml

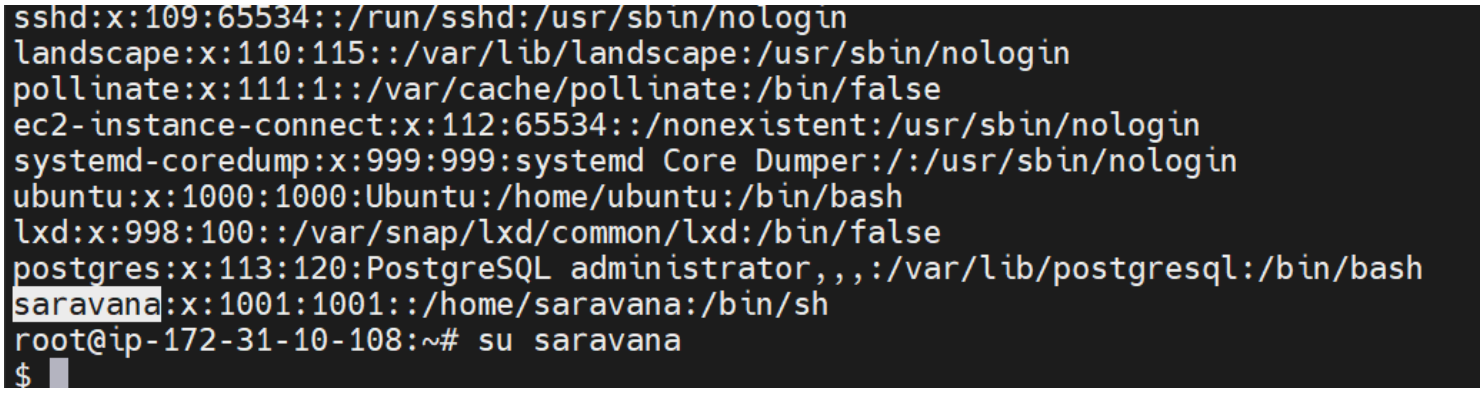
#saravana-sundar-nadar-192072
- name: Saravana sundar Nadar - 192072
hosts: slave_1
remote_user: root
vars:
passwd: 6S2n0uh0P$un8G.gV3s6vAN5XryMx0MkzDo90U4etX68z6DBzDZWTYQVnmuGGbJVOsQrnQCxE.Hutca/qrrqyvnEp3Bkbqu0
tasks:
- name: Installing Packages
become: yes
become_user: root
apt:
pkg:
- postgresql
- nginx
state: present
update_cache: yes
- name: Create user with my name-saravana
user:
name: saravana
password: "{{ passwd }}"
- name: Create Directory with my rollno-192072
file:
path: /home/192072
state: directory
- name: Unistalling nano
[Read 31 lines]


- name: Create Directory with my rollno-192072
file:
path: /home/192072
state: directory
- name: Unistalling nano
apt: name=nano state=absent

➥ **Executing Created ansible playbook.**



➥ **New user successfully created in client machine [ansible-slave] by ansible playbook.**



Upload the Ansible Playbook in the GitHub Repository you created in the first task

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