

I set up passwordless logins for sysadmin by creating a key using ssh-keygen in machine E. After that, I created a script to loop through the other machines and perform ssh-copy-id to all the machines. Then, I installed ansible using dnf.

After that, I added a host group named saclass in /etc/ansible/hosts where I added the ip addresses of all the other machines under this group. Then, I added pipelining in /etc/ansible/ansible.cfg. I confirmed the host group by performing ansible ping.

Furthermore, I created a bash script in the sysadmin home directory that would create the ansible playbook which is attached below.

For the umask, I removed the file that I created in lab3 before on all machines. Then I created a new file named umask.sh in /etc/profile.d in machine E where I had umask 007 in. After that I created a playbook for umask as attached below.

```
GNU nano 5.6.1 mkdmuserplay
#!/bin/bash
filename="dmusers.yaml"

echo "----" > "$filename"
echo "- hosts: saclass" >> "$filename"

echo "  become: true" >> "$filename"

#echo "    subgroup: \"sudo\" " >> "$filename"

echo "  tasks: " >> "$filename"

users=$(awk -F: '{print $1}' /etc/passwd | tail -16 | tr '\n' ' ')
#groups=$(awk -F: '{print $1}' /etc/group | tail -19)
i=1
for u in "${users[@]"; do

    uid=$(id -u "$u")
    gid=$(id -g "$u")
    home=$(getent passwd "$u" | cut -d: -f6)
    gecos=$(getent passwd "$u" | cut -d: -f5)
    shell=$(getent passwd "$u" | cut -d: -f7)
    passwd=$(cat /etc/shadow | grep "$u" | cut -d: -f2)
    groups=$(id -nG "$u" | sed 's/wheel//g' | sed 's/ / /g' | sed 's/ /,/g' | sed 's/,,$//g')

    echo "  - name: Set parameters for user" >> "$filename"
    echo "    user: " >> "$filename"
    echo "      name: $u" >> "$filename"
    echo "      uid: $uid" >> "$filename"
    echo "      group: $u" >> "$filename"
    echo "      groups: $groups" >> "$filename"
    echo "      append: yes" >> "$filename"
    echo "      comment: $gecos" >> "$filename"
    echo "      home: $home" >> "$filename"
    echo "      shell: $shell" >> "$filename"
    echo "      password: $passwd" >> "$filename"
    echo "  - name: Set parameters for group" >> "$filename"
    echo "    group: " >> "$filename"
    echo "      name: $u" >> "$filename"
    echo "      gid: $gid" >> "$filename"

done
for g in managers accounting sales; do

    gid=$(getent group $g | cut -d: -f3)
    echo "  - name: Set other groups" >> "$filename"
    echo "    group: " >> "$filename"
    echo "      name: $g" >> "$filename"
    echo "      gid: $gid" >> "$filename"
    echo "      state: present" >> "$filename"

done
```

```
---  
- hosts: saclass  
  become: true  
  tasks:  
    - name: copy umask to other machines  
      copy:  
        src: /etc/profile.d/umask.sh  
        dest: /etc/profile.d/umask.sh  
        owner: root  
        group: root  
        mode: "0644"
```