Ganpat University

Faculty of Engineering & Technology

Computer Science & Engineering

(2CSE204) Basics of Operating System and Shell Scripting

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Sem:-   **2**

Sub: -   **BOSS**

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Prac:-   **8**

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Practical 8

1. Create two users in different machines (servera and serverb) with same name (yourname_surname) and verify remote access from both ends.

Command:-

```
sudo useradd dwij_desai  (for server a)
sudo useradd Dwij_desai  (for server b)
sudo passwd dwij_desai / Dwij_desai   (password - dwij)
```

using this in server b:-
```
ssh dwij_desai@servera
```

using this in server a:-
```
ssh Dwij_desai@serverb
```

Image:-

```
Red Hat Enterprise Linux 8.2 (Ootpa)
Kernel 4.18.0-193.el8.x86_64 on an x86_64

Activate the web console with: systemctl enable --now cockpit.socket

serverb login: student
Password:
Last login: Wed Apr  3 02:24:29 on tty1
[student@serverb ~]$ sudo userdd Dwij_desai
[sudo] password for student:
sudo: userdd: command not found
[student@serverb ~]$ sudo useradd Dwij_desai
[student@serverb ~]$ cd ..
[student@serverb home]$ ls
devops   Dwij_desai   student
[student@serverb home]$ sudo passwd Dwij_desai
[sudo] password for student:
Sorry, try again.
[sudo] password for student:
Changing password for user Dwij_desai.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[student@serverb home]$ _
```

```
[student@servera home]$ ssh Dwij_desai@serverb
Dwij_desai@serverb's password:
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com
To register this system, run: insights-client --register

Last failed login: Wed Apr 10 02:59:38 EDT 2024 from 172.25.250.10 on ssh:notty
There was 1 failed login attempt since the last successful login.
[Dwij_desai@serverb ~]$ _

[student@servera home]$ ssh student@serverb
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com
To register this system, run: insights-client --register

Last login: Wed Apr 10 02:47:29 2024 from 172.25.250.10
[student@serverb ~]$ cd ..
[student@serverb home]$ ls
devops   Dwij_desai   student
[student@serverb home]$
```

From serverb to servera:

```
Last login: Wed Apr 10 02:17:05 on tty1
[student@servera ~]$ sudo useradd dwij_desai
[sudo] password for student:
Sorry, try again.
[sudo] password for student:
[student@servera ~]$ cd ..
[student@servera home]$ ls
devops   dwij_desai   student
[student@servera home]$ ssh Dwij_desai@serverb
Dwij_desai@serverb's password:
Permission denied, please try again.
Dwij_desai@serverb's password:

[student@servera home]$ ssh Dwij_desai@serverb
Dwij_desai@serverb's password:
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com/
To register this system, run: insights-client --register

Last failed login: Wed Apr 10 02:59:38 EDT 2024 from 172.25.250.10 on ssh:notty
There was 1 failed login attempt since the last successful login.
[Dwij_desai@serverb ~]$ exit
logout
Connection to serverb closed.
[student@servera home]$ ssh student@serverb
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com/
To register this system, run: insights-client --register

Last login: Wed Apr 10 02:47:29 2024 from 172.25.250.10
[student@serverb ~]$ cd ..
[student@serverb home]$ ls
devops   Dwij_desai   student
[student@serverb home]$ exit
logout
Connection to serverb closed.
[student@servera home]$ sudo passwd dwij_desai
[sudo] password for student:
Changing password for user dwij_desai.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[student@servera home]$ ls
devops   dwij_desai   student
[student@servera home]$
```

2. Configure one machine (servera) in such a way that if the public key of a remote user is modified, then it gets restored and the user successfully gets remote access to another server.

Command:-

      nano ~/.ssh/known_hosts

      ssh Dwij_desai@serverb

Image:-

Shows the key in serverb:-

```
[student@serverb .ssh]$ cat known_hosts
serverb,172.25.250.11 ecdsa-sha2-nistp2wqzdHAyNTYAAABBBGcRq48ar6veuh8PK9W5mn5zsHsn4XIB8S0GYXKgikiPStUIXsjxPFrhg/Q9U7i
servera,172.25.250.10 ecdsa-sha2-
[student@serverb .ssh]$
```

Modifying the key in serverb:-

```
  GNU nano 2.9.8                              /home/student/.ssh/known_hosts

serverb,172.25.250.11 ecdsa-sha2
servera,172.25.250.10 ecdsa-sha2-
```

```
[student@servera .ssh]$ ssh serverb
The authenticity of host 'serverb (172.25.250.11)' can't be established.
ECDSA key fingerprint is SHA256:1H687jfusVXYAUzAuByFfx1U/1B4VS+6h04wRhXhmZU.
Are you sure you want to continue connecting (yes/no/[fingerprint])?
Host key verification failed.
[student@servera .ssh]$ ssh serverb
The authenticity of host 'serverb (172.25.250.11)' can't be established.
ECDSA key fingerprint is SHA256:1H687jfusVXYAUzAuByFfx1U/1B4VS+6h04wRhXhmZU.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added 'serverb,172.25.250.11' (ECDSA) to the list of known hosts.
student@serverb's password:
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com/
To register this system, run: insights-client --register

Last login: Thu Mar 28 00:20:13 2024 from 172.25.250.10
[student@serverb ~]$ exit
logout
Connection to serverb closed.
[student@servera .ssh]$ cat known_hosts
serverb,172.25.250.11 ecdsa-sha2-nistp256 AAAAE2VjZItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBGcRq48ar6veuh8PK9W5mn5zsHsn4XIB8S0GYXKgiki
PStUIXsjxPFrhg/Q9U7iz0+5kByhu3R8ffazUbRS7g2A=
serverb,172.25.250.11 ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBGcRq48ar6veuh8PK9W5mn5zsHsn4XIB8S
0GYXKgikiPStUIXsjxPFrhg/Q9U7iz0+5kByhu3R8ffazUbRS7g2A=
[student@servera .ssh]$ _
```