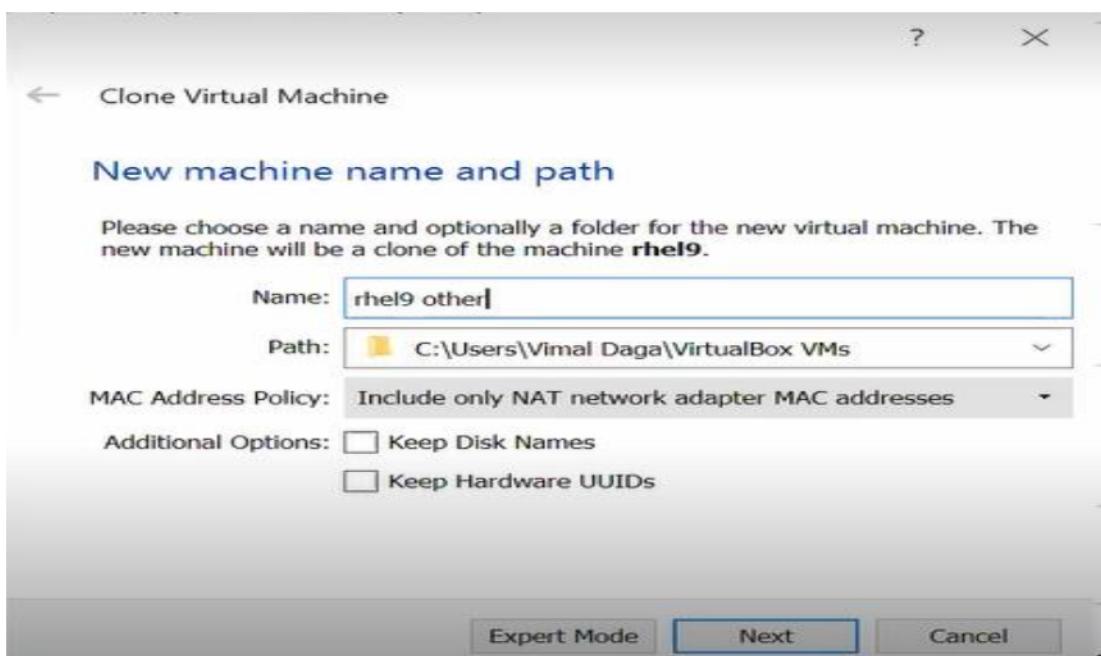
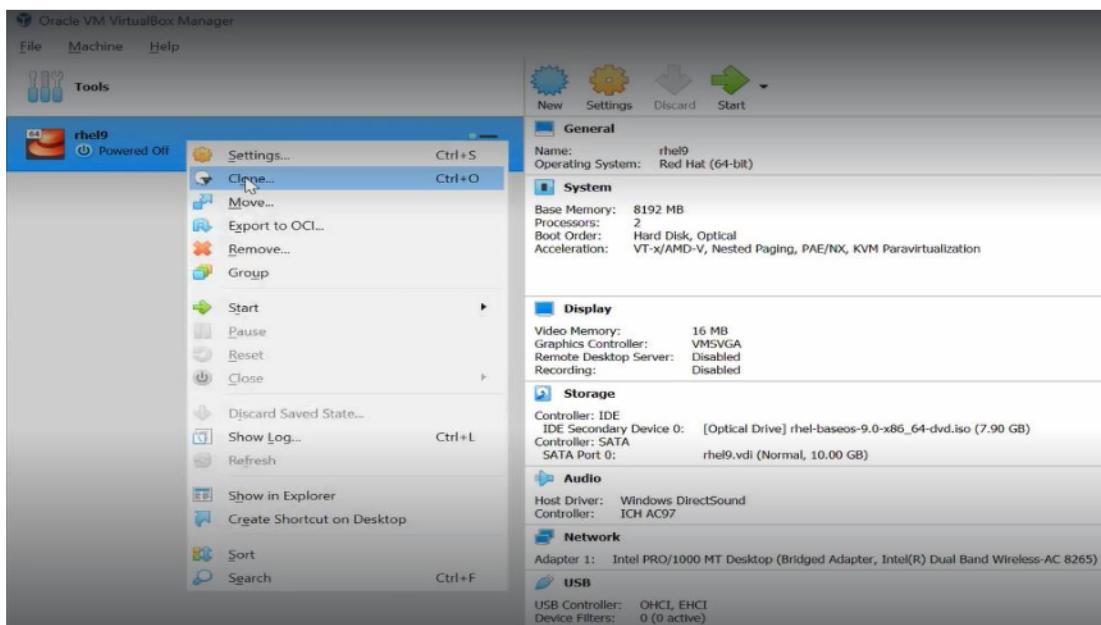


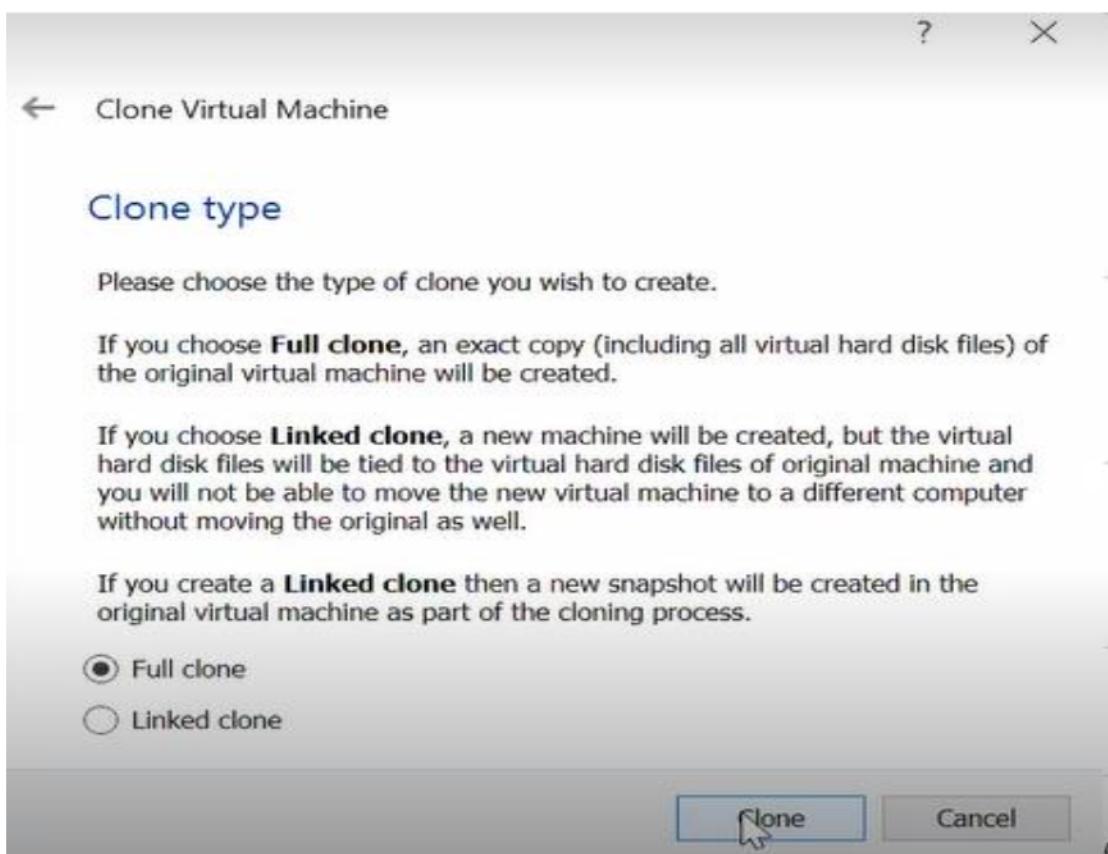
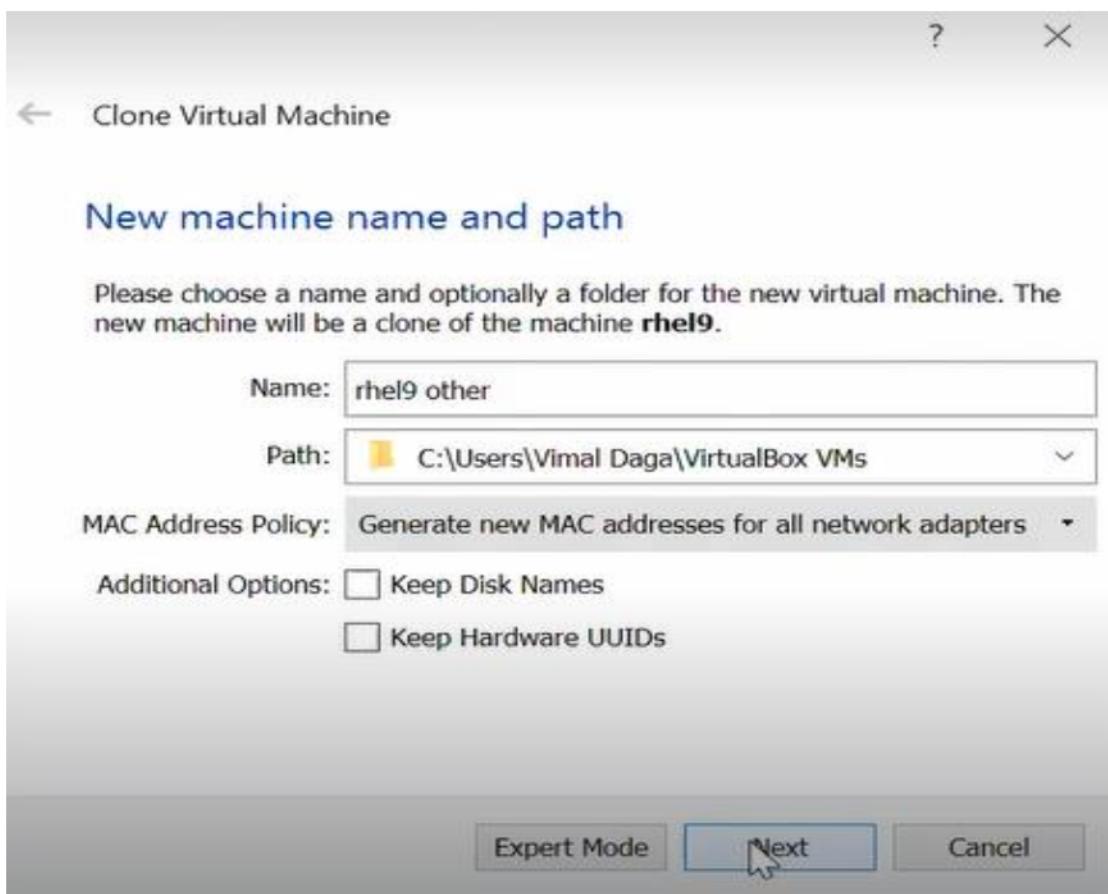


RHEL9

Session 6 – 30th October 2022 Summary

- To create a clone of a Virtual Machine- Right Click → Clone





- To manage the server remotely – we have to configure as ssh server – we can use two VM – one as ssh server and other as ssh client
- First we can check the connectivity between the systems using “ping” command
- When we try to remote login for the first time

```
[root@localhost ~]# ssh 192.168.1.2
The authenticity of host '192.168.1.2 (192.168.1.2)' can't be established.
ED25519 key fingerprint is SHA256:Gr1oQbcwi4v1+m77b4HE5XYJ3arrhd6A7e58fa82YEM.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

- The ssh will create a private and public key pair

```
[root@localhost ~]# vim /etc/ssh/sshd_config
```

```
root@localhost:~ — vim /etc/ssh/sshd_config

# If you want to change the port on a SELinux system, you have to tell
# SELinux about this change.
# semanage port -a -t ssh_port_t -p tcp #PORTNUMBER
#
Port 22
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::

#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key
```

```
[root@localhost ~]# cd /etc/ssh/
[root@localhost ssh]# ls
moduli      sshd_config.d          ssh_host_ed25519_key.pub
ssh_config   ssh_host_ecdsa_key    ssh_host_rsa_key
sshd_configd  ssh_host_ecdsa_key.pub ssh_host_rsa_key.pub
sshd_config  ssh_host_ed25519_key
[root@localhost ssh]#
```

- The private and public key – when client connects to the server, server sends the public key to the client

```
[root@localhost ssh]# cat ssh_host_ed25519_key
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbmc9uZQAAAAAAAAABAAAAMwA
QyNTUx0QAAACCjY2I0AYRmwBuS46nT0IW909rWLx3SxBuSgXz0j5100gAAA
1AAAAAtzc2gtZWQyNTUx0QAAACCjY2I0AYRmwBuS46nT0IW909rWLx3SxBu
AAAEBDYHhCa1KBd/09j2eqniCl0E9NG2I2DJJwirU5pv7ulKNjYg4BhGbAG
2tYvHdLEG5KBfPSPnU7SAAAAAECAwQF
-----END OPENSSH PRIVATE KEY-----
[root@localhost ssh]# cat ssh_host_ed25519_key.pub
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAIKNjYg4BhGbAG5LjqdPQhb0

[root@localhost ssh]#
```

- In client system the public key is downloaded – this public key is same as the public key generated by ssh server

```
root@localhost:~/ssh
[root@localhost ~]# pwd
/root
[root@localhost ~]# cd .ssh/
[root@localhost .ssh]# ls
known_hosts known_hosts.old
[root@localhost .ssh]# cat known_hosts
192.168.1.2 ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAIKN
G5KBfPSPnU7S
192.168.1.2 ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQgQC
6n7DILBjtzuP3DRtCJoM0+wF5zuJUrHQdFDMOQXXXPCQZcRZQLg
KxaIcS/aSGZcuN+uxw3CbI3N420Fjc4tq0XE Pvxy8gKxGpty3Qi
ZTEmi/TS5z+p0XTCrtItlWuCFx8hFJ0uASNr697z20LgMGS9G+L
Mm6tX2smuzsp2CBRjzTxKv2rtsM60bVF+sflNC0jY2tf6hQELO
EJ+BmadjhjzqlyInt9GkTh6d8JTGTPM/xlhX+LABWzhqSe3jXul
zYKFDd2hCFAT2rIBrmguV8Ij0pxFeMnidSKykPD7oNMVuiwR0mX
xV8=
```

- In server if all keys deleted –

```
[root@localhost ssh]# rm ssh_host_*
rm: remove regular file 'ssh_host_ecdsa_key'? y
rm: remove regular file 'ssh_host_ecdsa_key.pub'? y
rm: remove regular file 'ssh_host_ed25519_key'? y
rm: remove regular file 'ssh_host_ed25519_key.pub'? y
rm: remove regular file 'ssh_host_rsa_key'? y
rm: remove regular file 'ssh_host_rsa_key.pub'? y
[root@localhost ssh]#
```

- Once we restart the service – private and public keys are automatically created

```
[root@localhost ssh]# systemctl restart sshd
[root@localhost ssh]# ls
moduli      sshd_config.d          ssh_host_ed25519_key.
ssh_config   ssh_host_ecdsa_key    ssh_host_rsa_key
sshd_config  ssh_host_ecdsa_key.pub ssh_host_rsa_key.pub
sshd_config  ssh_host_ed25519_key
[root@localhost ssh]#
```

- Now when client tries to login-

- The client has older key – so remove it and connect again

```
[root@localhost .ssh]# rm known_hosts
rm: remove regular file 'known_hosts'? y
```

```
[root@localhost .ssh]# ssh 192.168.1.2
The authenticity of host '192.168.1.2 (192.168.1.2)' can't be established
ED25519 key fingerprint is SHA256:f1DVYEl6QRauYSA036wU7gakfs5+GEKsxA9L
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Warning: Permanently added '192.168.1.2' (ED25519) to the list of known hosts
hey this is LW server
not allowed ...
.....
root@192.168.1.2's password:
#####
##### Welcome Back from diwali festival #####
now focus on study.....

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

Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-
Last login: Sun Oct 30 15:13:36 2022 from 192.168.1.3
[root@localhost ~]#
```

- For key based authentication – on server side its already enabled

```
root@localhost:/etc/ssh — vim /etc/ssh/sshd_config

#SyslogFacility AUTH
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
#PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 1

#PubkeyAuthentication yes

# The default is to check both .ssh/authorized_keys and .ss
# but this is overridden so installations will only check .
AuthorizedKeysFile      .ssh/authorized_keys

#AuthorizedPrincipalsFile none
```

- On the client side we have to generate the private and public key

```
[root@localhost ~]# ssh-keygen
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:TjsI7hv4UEevkamPQChHr0QsMYjXHVxABgsmYwvMhsw root@localhost.localdomain
The key's randomart image is:
+---[RSA 3072]---+
|= . +++. |
|0+. ..o |
|+EB o + |
|.B * + = |
|o = + * S |
|.+ = + * . |
|= + o + |
|= + . |
|=.. |
+---[SHA256]---+
```

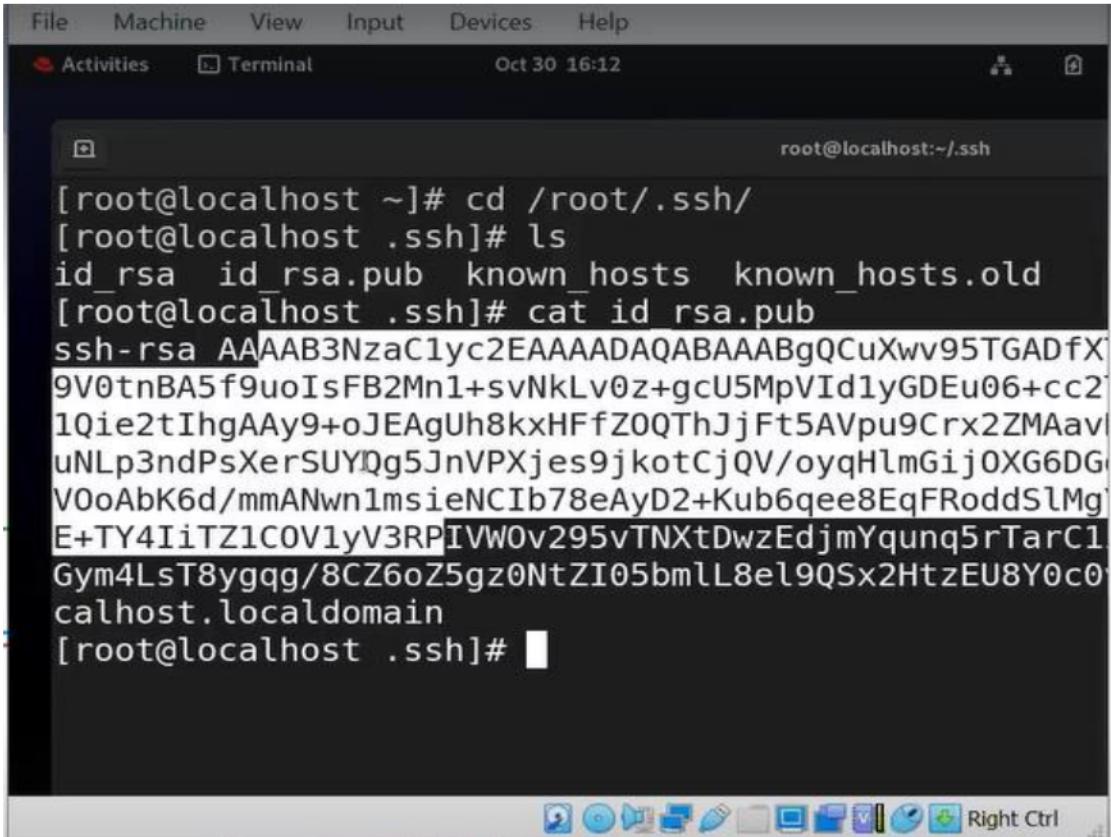
- The client sends the public key to the server and authorized by server

```
root@localhost:~ [root@localhost ~]# ssh-copy-id 192.168.1.2
/usr/bin/ssh-copy-id: INFO: attempting to log in without any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed now it is to install the new keys
hey this is LW server
not allowed ...
.....
root@192.168.1.2's password:
Number of key(s) added: 1

Now try logging into the machine, with: "ssh '192.168.1.2"
and check to make sure that only the key(s) you want are there.

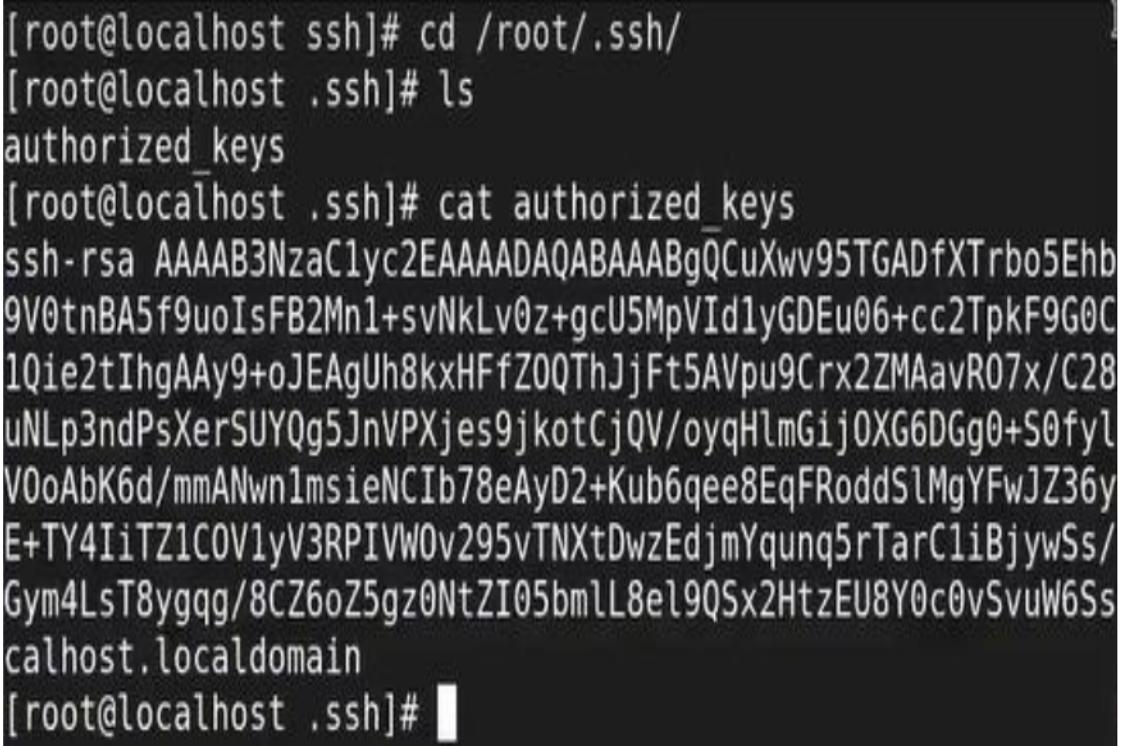
[root@localhost ~]#
```

- At the client side the public key location



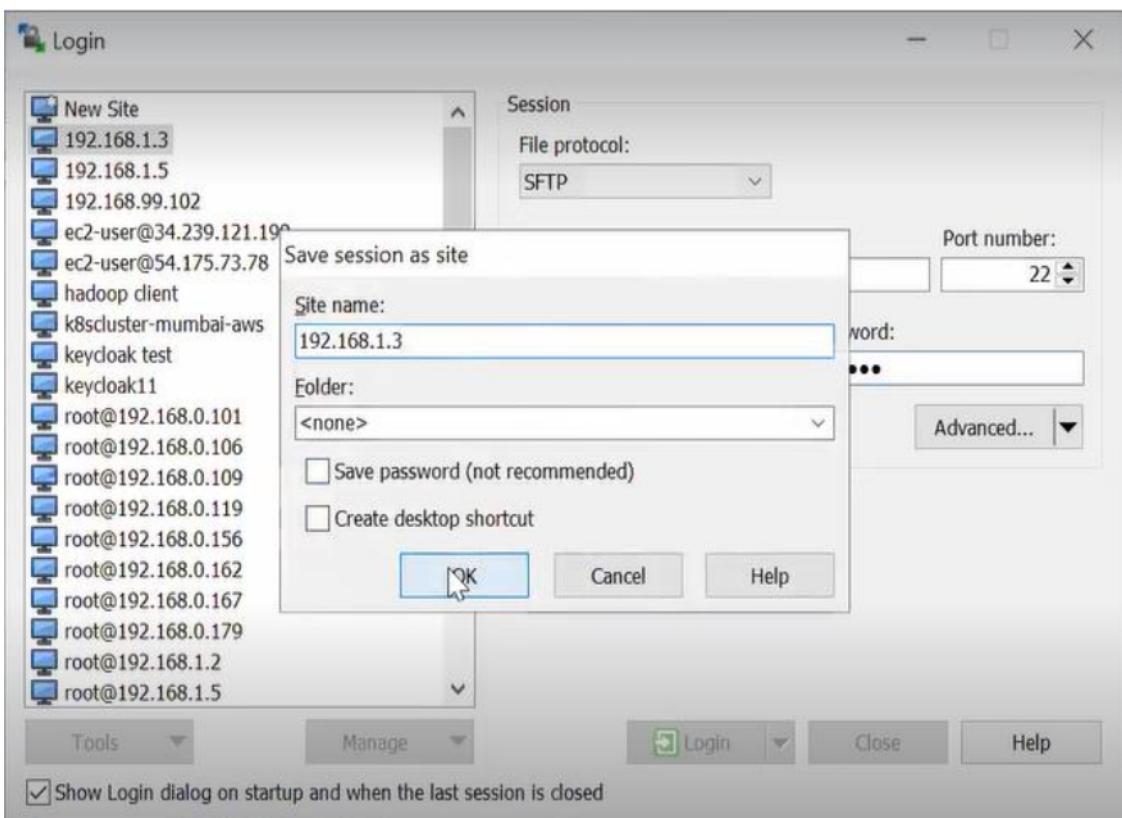
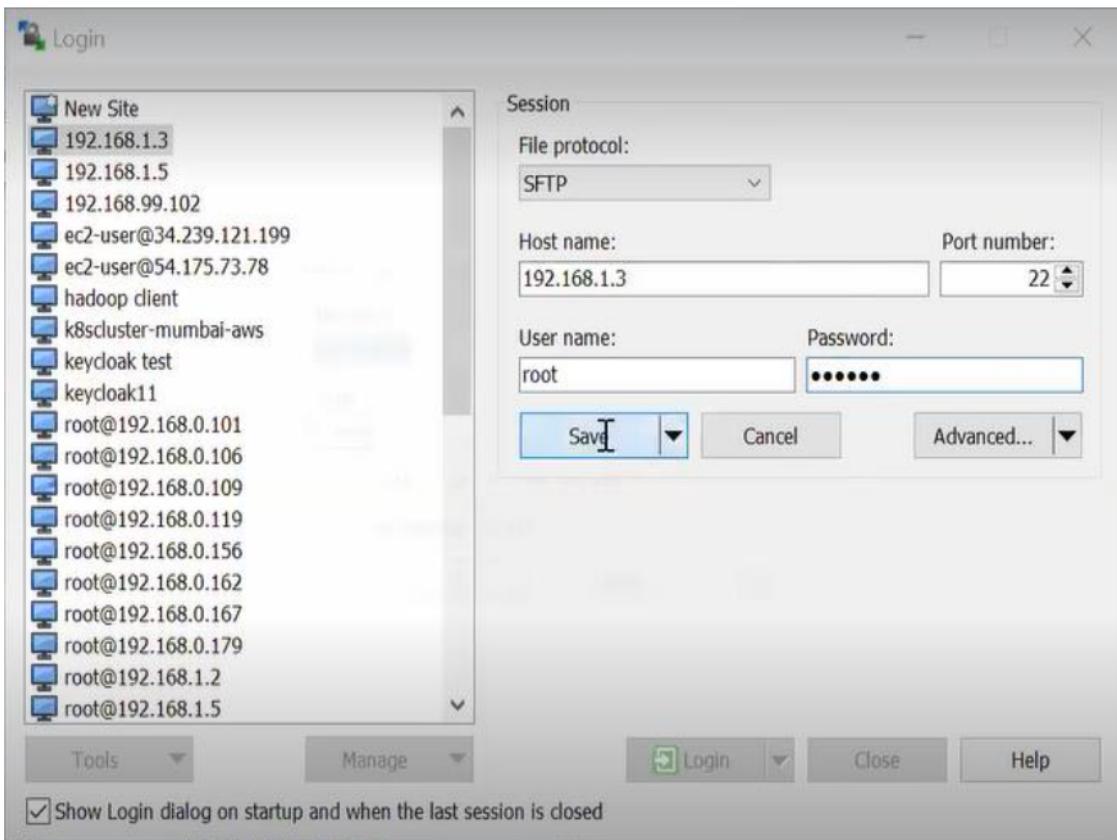
```
[root@localhost ~]# cd /root/.ssh/
[root@localhost .ssh]# ls
id_rsa  id_rsa.pub  known_hosts  known_hosts.old
[root@localhost .ssh]# cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQgQCuXwv95TGADfX
9V0tnBA5f9uoIsFB2Mn1+svNkLv0z+gcU5MpVId1yGDEu06+cc2
1Qie2tIhgAAy9+oJEAgUh8kxHFFZ0QThJjFt5AVpu9Crx2ZMAav
uNLp3ndPsXerSUYQg5JnVPXjes9jkotCjQV/oyqHlmGij0XG6DG
V0oAbK6d/mmANwn1msieNCib78eAyD2+Kub6qee8EqFRoddSlMg
E+TY4IiTZ1COV1yV3RPIVW0v295vTNxtDwzEdjmYqunq5rTarC1
Gym4LsT8ygqq/8CZ6oZ5gz0NtZI05bmlL8el9QSx2HtzEU8Y0c0
calhost.localdomain
[root@localhost .ssh]#
```

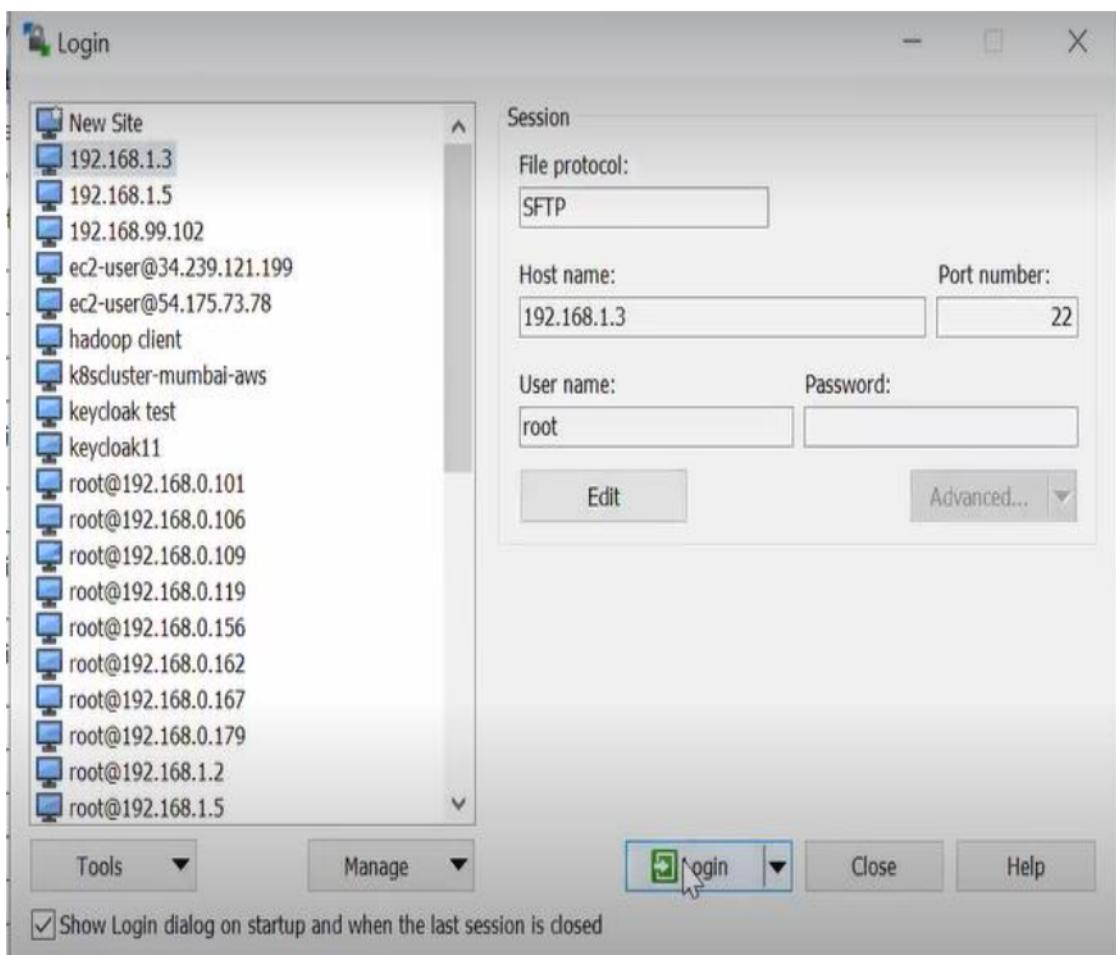
- The public key of client is transferred to server-

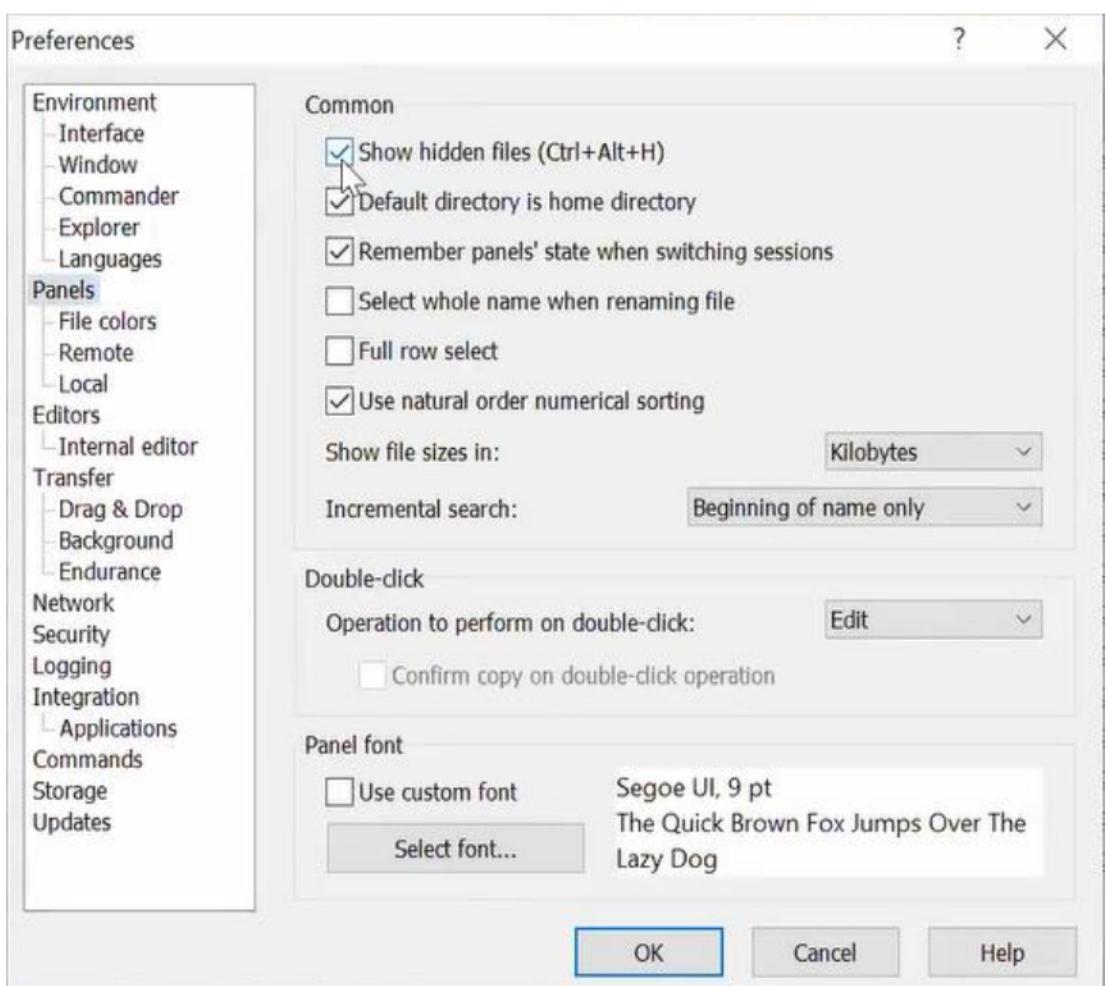
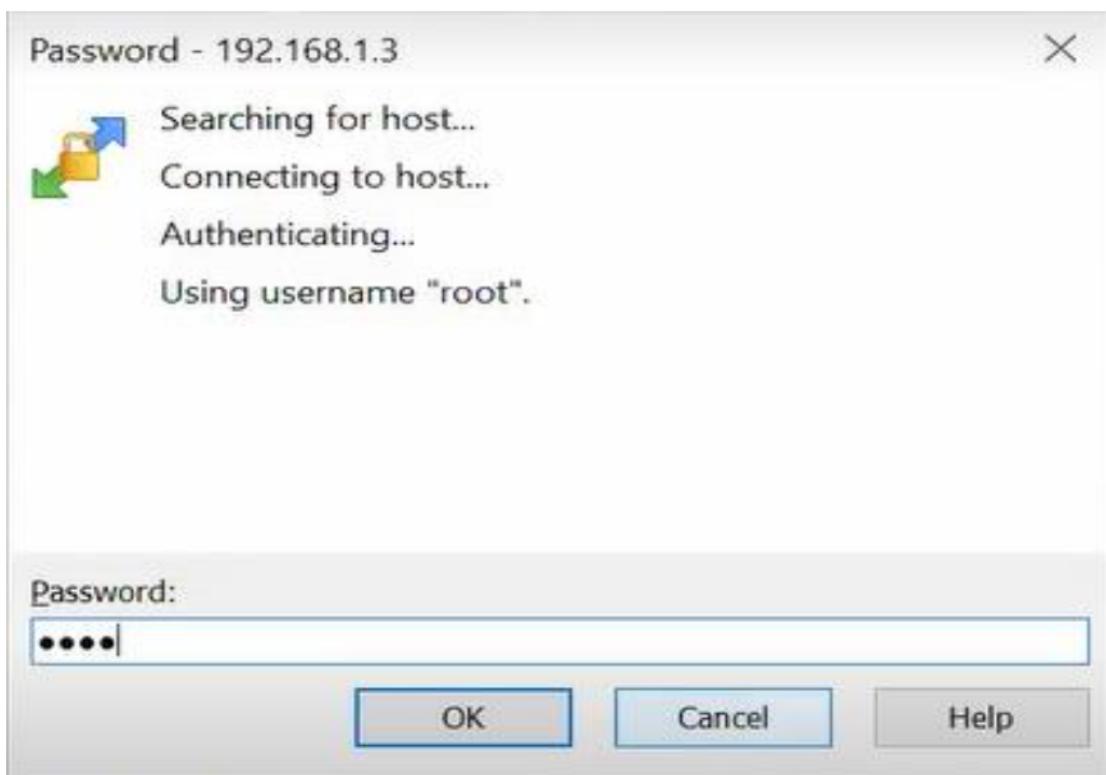


```
[root@localhost ssh]# cd /root/.ssh/
[root@localhost .ssh]# ls
authorized_keys
[root@localhost .ssh]# cat authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQgQCuXwv95TGADfXTrbo5Ehb
9V0tnBA5f9uoIsFB2Mn1+svNkLv0z+gcU5MpVId1yGDEu06+cc2TpKF9G0C
1Qie2tIhgAAy9+oJEAgUh8kxHFFZ0QThJjFt5AVpu9Crx2ZMAavR07x/C28
uNLp3ndPsXerSUYQg5JnVPXjes9jkotCjQV/oyqHlmGij0XG6DGg0+S0fyl
V0oAbK6d/mmANwn1msieNCib78eAyD2+Kub6qee8EqFRoddSlMgYFwJZ36y
E+TY4IiTZ1COV1yV3RPIVW0v295vTNxtDwzEdjmYqunq5rTarC1iBjywSs/
Gym4LsT8ygqq/8CZ6oZ5gz0NtZI05bmlL8el9QSx2HtzEU8Y0c0vSvuW6Ss
calhost.localdomain
[root@localhost .ssh]#
```

- Use winscp to transfer files – transfer private key from .ssh folder to windows – to login to ssh server without password







C:\Users\Vimal Daga\Documents\DSA_ARITH_1_2\cpp_code\			/root/					
Name	Size	Type	Changed	Name	Size	Changed	Rights	Owner
..		Parent directory	11-02-2022 20:43:48	..		08-10-2022 16:05:28	rwxr-xr-x	root
fixed_queue.cpp	2 KB	C++ Source File	11-02-2022 20:36:47	.cache		29-10-2022 16:52:08	rw----	root
a.out	23 KB	Wireshark capture f...	11-02-2022 20:29:59	.config		29-10-2022 16:52:07	rw----	root
hash_stl.cpp	2 KB	C++ Source File	17-01-2022 20:56:10	.local		09-10-2022 17:23:06	rw----	root
stl_ft.cpp	1 KB	C++ Source File	03-01-2022 20:41:42	.mozilla		09-10-2022 15:17:37	rwxr-xr-x	root
stl_vector1.cpp	1 KB	C++ Source File	03-01-2022 20:34:38	.ssh		30-10-2022 16:10:38	rw----	root
stl_eg.cpp	1 KB	C++ Source File	03-01-2022 20:26:25	.aaa		09-10-2022 16:11:40	rwxr-xr-x	root
auto.cpp	1 KB	C++ Source File	03-01-2022 20:05:41	code		29-10-2022 16:46:26	rwxr-xr-x	root
stl_singly.cpp	1 KB	C++ Source File	30-12-2021 21:05:53	Desktop		08-10-2022 17:15:54	rwxr-xr-x	root
stl_list.cpp	1 KB	C++ Source File	30-12-2021 20:56:17	Documents		08-10-2022 17:15:54	rwxr-xr-x	root
stl_vector.cpp	1 KB	C++ Source File	30-12-2021 20:54:52	Downloads		08-10-2022 17:15:54	rwxr-xr-x	root
template_class.cpp	1 KB	C++ Source File	30-12-2021 20:25:14	hhhh		29-10-2022 16:35:00	rwxr-xr-x	root
template_func.cpp	1 KB	C++ Source File	30-12-2021 20:23:10	Music		08-10-2022 17:15:54	rwxr-xr-x	root
inline.cpp	1 KB	C++ Source File	27-12-2021 20:42:01	Pictures		16-10-2022 16:13:41	rwxr-xr-x	root
linkedlist_singly.cpp	1 KB	C++ Source File	24-12-2021 20:49:28	Public		08-10-2022 17:15:54	rwxr-xr-x	root
oop2.cpp	1 KB	C++ Source File	22-12-2021 21:14:36	Templates		08-10-2022 17:15:54	rwxr-xr-x	root
oop1.cpp	1 KB	C++ Source File	21-12-2021 20:51:47	Videos		08-10-2022 17:15:54	rwxr-xr-x	root
fab.cpp	1 KB	C++ Source File	26-11-2021 19:51:56	..bash_history	6 K	30-10-2022 15:13:24	rw----	root
fab1.cpp	1 KB	C++ Source File	26-11-2021 19:46:16	..bash_logout	1 K	10-08-2021 21:45:38	rw-r--r--	root
f.cpp	1 KB	C++ Source File	24-11-2021 23:04:02	..bash_profile	1 K	10-08-2021 21:45:38	rw-r--r--	root
co.cpp	1 KB	C++ Source File	23-11-2021 21:16:28	..bashrc	1 K	10-08-2021 21:45:38	rw-r--r--	root

```
ct1. Command Prompt
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Vimal Daga>cd Documents

C:\Users\Vimal Daga\Documents>type id_rsa
```

```
C:\Users\Vimal Daga\Documents>
C:\Users\Vimal Daga\Documents>ssh -i id_rsa -l root 192.168.1.2
hey thi s is LW server
not allowed ...
.....
@WARNING: UNPROTECTED PRIVATE KEY FILE! @
Permissions for 'id_rsa' are too open.
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
Load key "id_rsa": bad permissions
root@192.168.1.2: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).
```

- To use OS we have to login- for login we need account(user name and password)
- By default account the Linux OS create is root account
- Command to create user account

```
[root@localhost ~]# useradd eric
[root@localhost ~]# passwd eric
Changing password for user eric.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully
```

- To verify account has been created

```
[root@localhost ~]# id eric
uid=1005(eric) gid=1005(eric) groups=1005(eric)
[root@localhost ~]#
```

- When “Useradd” command is used to create a user, it updates the “/etc/passwd”
- The “/etc/passwd” file contains all the user accounts in the system

```
[root@localhost ~]# vim /etc/passwd
```

```
root:x:0:0:root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:998:996:User for polkitd:/:/sbin/nologin
tss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
colord:x:997:993:User for colord:/var/lib/colord:/sbin/nologin
```

- Each line in the “/etc/passwd” file contains the record of one user – it contains seven fields
- If we delete an entry from this file – that is like to delete an user account

```

pipewire:x:991:986:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
flatpak:x:990:985:User for flatpak system helper:/sbin/nologin
gdm:x:42:42::/var/lib/gdm:/sbin/nologin
cockpit-ws:x:989:984:User for cockpit web service:/nonexisting:/sbin/nologin
cockpit-wsinstance:x:988:983:User for cockpit-ws instances:/nonexisting:/sbin/nologin
gnome-initial-setup:x:987:982::/run/gnome-initial-setup:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/usr/share/empty.sshd:/sbin/nologin
chrony:x:986:981::/var/lib/chrony:/sbin/nologin
dnsmasq:x:985:980:Dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
tcpdump:x:72:72::/sbin/nologin
systemd-oom:x:978:978:systemd Userspace OOM Killer:/:/usr/sbin/nologin
vimal:x:1000:1000:vimal daga:/home/vimal:/bin/bash
tom:x:1001:1001::/home/tom:/bin/bash
apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin
yash:x:1002:1002::/home/yash:/bin/bash
pop:x:1003:1003::/home/pop:/bin/bash
jack:x:1004:1004::/home/jack:/bin/bash
-
-
"/etc/passwd" 44L, 2420B written

```

44,1 Bot

```

Red Hat Enterprise Linux 9.0 (Plow)
Kernel 5.14.0-70.22.1.el9_0.x86_64 on an x86_64
Activate the web console with: systemctl enable --now cockpit.socket
localhost login: eric
Password:
Login incorrect
localhost login:

```

- The first field is the user/login name
- The second field is the password field (x) – it links to other file “/etc/shadow”

```

[root@localhost ~]# cat /etc/shadow

```

```

sshd:!:19273:::::
chrony:!:19273:::::
dnsmasq:!:19273:::::
tcpdump:!:19273:::::
systemd-oom:!*:19273:::::
vimal:$6$u$30hhboMUcccdNa.kaoerBRk4t70LBDDkcg4UcmW0lk45HMKVwxTlxsrLhrtRFjdk5.Ph4lAr3pn
RqBypUCm.ti.:19273:0:99999:7:::
tom:$6$lbB8wk92PMkS07lu$4HzwA1QF351aywulwWpQnJ7LtXTdkGV050XNb7k6yJb0DVKTqBzFK4CwkeUwp
.ODFa8mQciycQjYzGFcrImnx1:19273:0:99999:7:::
apache:!:19280:::::
yash:$6$lLE1wfBp/YGF.Q5J$p105W0XsE50n0.NKZGhit2qPgjL5m9u1PxEC8b9.in2WaQZ7r39AEdH9r.vJ
kJJgamV0oYWZn0Rw.IcTy0570:19294:0:99999:7:::
pop:$6$Z6FraTlXupaDRLoR$nE0q2elc5gnxTSAdhLX30IA2x3SXaSJHpk6xIGk3wVwCIE23JuebF6DtE7bI
jcVaCRG8L/4WDVtqC2tpU7Zl.:19294:0:99999:7:::
jack:$6$d7TclwEZvIG7NsYA$hQUJC4B5DY0Wyp/gHx8bc0qaxHtDNzTEg0jFTKBc5NdyQKs9E/AZzfukoY.
uXROXE6EC/HMB7uZibyMok8N90:19295:0:99999:7:::
eric:$6$d6vMXoC13aoj1Vnl$it0FZhgQxxx7TJPeEZ4BnR1p6b9oGyB/vY0oRtosTCQdh05dzjLxGeRwpBuBD
2EHixkIXjdyuoWOEJks2oy2V91:19295:0:99999:7:::

```

[root@localhost ~]#

- If we delete the “x” from “/etc/passwd” file of “eric” account

```

root@localhost:~ — vim /etc/passwd
pipewire:x:991:986:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
flatpak:x:990:985:User for flatpak system helper://:/sbin/nologin
gdm:x:42:42::/var/lib/gdm:/sbin/nologin
cockpit-ws:x:989:984:User for cockpit web service:/nonexisting:/sbin/nologin
cockpit-wsinstance:x:988:983:User for cockpit-ws instances:/nonexisting:/sbin/nologin
gnome-initial-setup:x:987:982::/run/gnome-initial-setup:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/usr/share/empty.sshd:/sbin/nologin
chrony:x:986:981:/var/lib/chrony:/sbin/nologin
dnsmasq:x:985:980:Dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
tcpdump:x:72:72:::/sbin/nologin
systemd-oom:x:978:978:systemd Userspace OOM Killer:/:/usr/sbin/nologin
vimal:x:1000:1000:vimal daga:/home/vimal:/bin/bash
tom:x:1001:1001::/home/tom:/bin/bash
apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin
yash:x:1002:1002::/home/yash:/bin/bash
pop:x:1003:1003::/home/pop:/bin/bash
jack:x:1004:1004::/home/jack:/bin/bash
eric:x:1005:1005::/home/eric:/bin/bash
-

```

- Now if we try to login to eric account- we can login without password

```

Red Hat Enterprise Linux 9.0 (Plow)
Kernel 5.14.0-70.22.1.el9_0.x86_64 on an x86_64

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

localhost login: eric
Last login: Sun Oct 30 17:41:13 on tty4
#####
##### Welcome Back from diwali festival #####
now focus on study.....

[eric@localhost ~]$ 
[eric@localhost ~]$ 
[eric@localhost ~]$ 
[eric@localhost ~]$ 

```

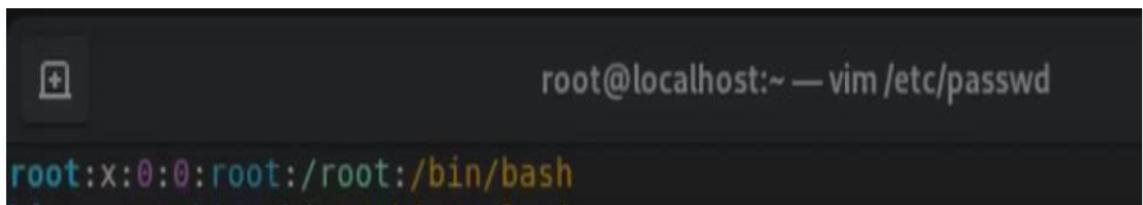
- The “/etc/passwd” file is readable by all the accounts
- The “/etc/shadow” file is not readable by all the accounts – so password is stored here due to security reasons

```

[eric@localhost ~]$ cat /etc/shadow
cat: /etc/shadow: Permission denied
[eric@localhost ~]$ 
[eric@localhost ~]$ 
[eric@localhost ~]$ 

```

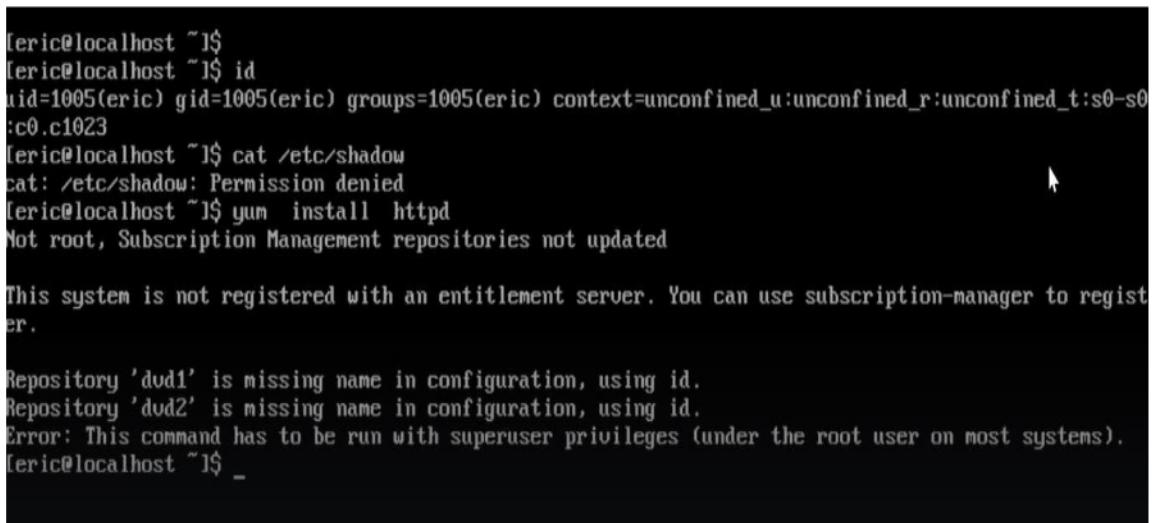
- The third field is the UID- every user has been given a user ID – system recognizes with UID
- The root has the UID “0”



The screenshot shows a terminal window with the title "root@localhost:~ — vim /etc/passwd". The command entered was "root:x:0:0:root:/root:/bin/bash". The terminal interface includes a menu bar at the top and a status bar at the bottom.

```
root:x:0:0:root:/root:/bin/bash
```

- Any user with ID “0” is the super user – power has come from the UID not from the name “root”
- With UID other than “0” has no power to install a software, create other user accounts etc



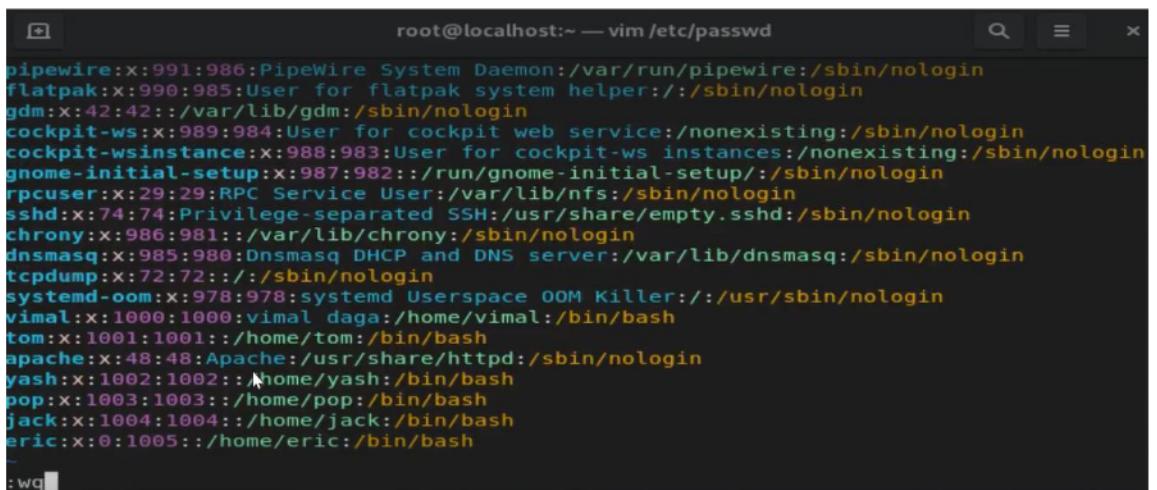
The screenshot shows a terminal window with the title "[eric@localhost ~]\$". The user runs several commands as user eric, which fail because they lack root privileges. The commands include "id", "cat /etc/shadow", "yum install httpd", and "subscription-manager update". The terminal also displays a message about the system not being registered with an entitlement server.

```
[eric@localhost ~]$ id
uid=1005(eric) gid=1005(eric) groups=1005(eric) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[eric@localhost ~]$ cat /etc/shadow
cat: /etc/shadow: Permission denied
[eric@localhost ~]$ yum install httpd
Not root, Subscription Management repositories not updated

This system is not registered with an entitlement server. You can use subscription-manager to register.

Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Error: This command has to be run with superuser privileges (under the root user on most systems).
[eric@localhost ~]$ _
```

- If the UID of user eric has changed to “0” – the user get unlimited power



The screenshot shows a terminal window with the title "root@localhost:~ — vim /etc/passwd". The user runs the "id" command, which shows they are now root (uid=0). The terminal then lists many system users and their details, including vimal, tom, apache, yash, pop, jack, and eric. The "eric" entry shows a UID of 0. The terminal ends with the command ":wq!" to save and exit vim.

```
root@localhost:~ — vim /etc/passwd
root:x:0:0:root:/root:/bin/bash
vimal:x:1000:1000:vimal daga:/home/vimal:/bin/bash
tom:x:1001:1001::/home/tom:/bin/bash
apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin
yash:x:1002:1002::/home/yash:/bin/bash
pop:x:1003:1003::/home/pop:/bin/bash
jack:x:1004:1004::/home/jack:/bin/bash
eric:x:0:1005::/home/eric:/bin/bash
_
:wq!
```

Red Hat Enterprise Linux 9.0 (Plow)
Kernel 5.14.0-70.22.1.el9_0.x86_64 on an x86_64

②

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

localhost login: eric

Password:

Last failed login: Sun Oct 30 17:40:43 IST 2022 on tty4

There was 1 failed login attempt since the last successful login.

Last login: Sun Oct 30 16:36:31 from 192.168.1.3

#####
Welcome Back from diwali festival
now focus on study.....

[root@localhost ~]#

[root@localhost ~]#

[root@localhost ~]# id

uid=0(root) gid=1005(eric) groups=1005(eric) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0-c1023

[root@localhost ~]# whoami

root