

## **Module 5: User Administration**

### **Assignment**

#### **1 – Add a new user called edureka with password edureka**

```
[root@server1 Assignments]#  
[root@server1 Assignments]# useradd -c "New user edureka" edureka  
[root@server1 Assignments]#  
[root@server1 Assignments]# tail /etc/passwd  
gdm:x:42:42::/var/lib/gdm:/sbin/nologin  
gnome-initial-setup:x:989:984::/run/gnome-initial-setup:/sbin/nologin  
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin  
postfix:x:89:89::/var/spool/postfix:/sbin/nologin  
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin  
tcpdump:x:72:72::/sbin/nologin  
akmtir:x:1000:1000:akmtir:/home/akmtir:/bin/bash  
user3:x:1010:1001::/home/user3:/bin/bash  
user5:x:1002:1003::/home/user5:/bin/bash  
edureka:x:1011:1011:New user edureka:/home/edureka:/bin/bash  
[root@server1 Assignments]#  
[root@server1 Assignments]#  
[root@server1 Assignments]#  
[root@server1 Assignments]# tail /etc/shadow  
gdm:!!:17278::::::  
gnome-initial-setup:!!:17278::::::  
avahi:!!:17278::::::  
postfix:!!:17278::::::  
sshd:!!:17278::::::  
tcpdump:!!:17278::::::  
akmtir:  
$6$OijuHj0U5UAY9kks$X0fIlqD.G8yReVOhLIjPWYD4HqXV.4kNpet6.f4hHL47U02bLhPAzQn/Us  
STEXfyE247pf7gSO7p/F/2ZIPmm1::0:99999:7:::  
user3:$6$pOKaMUk6$e8dFSjp3lpSq.frVxj3dx5crmP.8jHMfwLpKwfJpNXYdVIIcMdpAW0lq468t  
Gs1JX2RHavspxB5EbrJmy0G.:17292:0:90:3:5::  
user5:$6$T/KxHDJ8$BSsIcFwg9rdca/CX6gWFdDRYm9rZS2x7Is9YjNLLQnpMMmr.kAb87c1Sxz0s  
AzHe8c6lvpLs46rkU2nzq2aac1:17292:0:99999:7:::  
edureka:!!:17293:0:99999:7:::  
[root@server1 Assignments]#  
[root@server1 Assignments]# passwd edureka  
Changing password for user edureka.  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:
```

```

passwd: all authentication tokens updated successfully.
[root@server1 Assignments]# tail /etc/shadow
gdm:!!:17278::::::
gnome-initial-setup:!!:17278::::::
avahi:!!:17278::::::
postfix:!!:17278::::::
sshd:!!:17278::::::
tcpdump:!!:17278::::::
akmtir:
$6$OijuHj0U5UAY9kks$X0fIlqD.G8yReVOhLIjPWYD4HqXV.4kNpet6.f4hHL47U02bLhPAzQn/Us
STExfYE247pf7gSO7p/F/2ZIPmm1::0:99999:7:::
user3:$6$POKaMUk6$e8dFSjp3lpSq.frVxj3dx5crmP.8jHMfwLpKwfJpNXYdVIIcMdpAW0lq468t
Gs1JX2RHavspxB5EbrJmy0G.:17292:0:90:3:5::
user5:$6$T/KxHDJ8$BSsIcFwg9rdca/CX6gWFdDRYm9rZS2x7Is9YjNLLQnpMMmr.kAb87c1Sxz0s
AzHe8c6lvpLs46rkU2nzq2aac1:17292:0:99999:7:::
edureka:
$6$AhWdi4e3$XgkgqzGmQXeHykSgN7OygcxZlvpB9v5e9rFtNHXf.r8qxNqzS10WeNduAaRtHLCfI
7Zvr9hDYA2qnGKtlP5zj0:17293:0:99999:7:::
[root@server1 Assignments]#
[root@server1 Assignments]#
[root@server1 Assignments]# chage -l edureka
Last password change                : May 07, 2017
Password expires                    : never
Password inactive                    : never
Account expires                      : never
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
[root@server1 Assignments]#
[root@server1 Assignments]#
[root@server1 Assignments]#
[root@server1 Assignments]#
[root@server1 Assignments]# groups edureka
edureka : edureka
[root@server1 Assignments]# id edureka
uid=1011(edureka) gid=1011(edureka) groups=1011(edureka)
[root@server1 Assignments]#
[root@server1 Assignments]# su - edureka
Last login: Sun May 7 04:35:00 CEST 2017 on pts/0
[edureka@server1 ~]$ pwd
/home/edureka
[edureka@server1 ~]$ ls -lah
total 36K
drwx-----. 5 edureka edureka 4.0K May 7 04:34 .
drwxr-xr-x. 7 root root 4.0K May 7 02:20 ..
-rw-----. 1 edureka edureka 39 May 7 04:35 .bash_history
-rw-r--r--. 1 edureka edureka 18 Aug 2 2016 .bash_logout

```

```
-rw-r--r--. 1 edureka edureka 193 Aug 2 2016 .bash_profile
-rw-r--r--. 1 edureka edureka 231 Aug 2 2016 .bashrc
drwxrwxr-x. 3 edureka edureka 4.0K May 7 04:33 .cache
drwxrwxr-x. 3 edureka edureka 4.0K May 7 04:33 .config
drwxr-xr-x. 4 edureka edureka 4.0K Apr 22 21:40 .mozilla
[edureka@server1 ~]$
```

## **2 – Add a new user with /tmp/user as his home directory**

```
[root@server1 Assignments]#
[root@server1 Assignments]# useradd -d /tmp/user newUser
useradd: cannot set SELinux context for home directory /tmp/user
[root@server1 Assignments]#
[root@server1 Assignments]# tail /etc/passwd
gnome-initial-setup:x:989:984::/run/gnome-initial-setup:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
postfix:x:89:89::/var/spool/postfix:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
tcpdump:x:72:72::/sbin/nologin
akmtir:x:1000:1000:akmtir:/home/akmtir:/bin/bash
user3:x:1010:1001::/home/user3:/bin/bash
user5:x:1002:1003::/home/user5:/bin/bash
edureka:x:1011:1011:New user edureka:/home/edureka:/bin/bash
newUser:x:1012:1012::/tmp/user:/bin/bash
[root@server1 Assignments]#
[root@server1 Assignments]#
```

## **3 – Make edureka as the primary group of the user created above**

```
[root@server1 Assignments]#
[root@server1 Assignments]# usermod -g edureka newUser
[root@server1 Assignments]#
[root@server1 Assignments]# groups newUser
newUser : edureka
[root@server1 Assignments]#
[root@server1 Assignments]# tail /etc/passwd
edureka:x:1011:1011:New user edureka:/home/edureka:/bin/bash
newUser:x:1012:1011::/tmp/user:/bin/bash
[root@server1 Assignments]#
[root@server1 Assignments]# id newUser
uid=1012(newUser) gid=1011(edureka) groups=1011(edureka)
[root@server1 Assignments]#
```

## 4 – Make root as the secondary group of the above user

```
[root@server1 Assignments]# usermod -G root newUser
[root@server1 Assignments]# id newUser
uid=1012(newUser) gid=1011(edureka) groups=1011(edureka),0(root)
[root@server1 Assignments]#
```

## 5 – Delete a group called edureka

```
[root@server1 Assignments]# groupdel edureka
groupdel: cannot remove the primary group of user 'edureka'
[root@server1 Assignments]#
[root@server1 Assignments]# usermod -g root edureka
[root@server1 Assignments]#
[root@server1 Assignments]# groupdel edureka
groupdel: cannot remove the primary group of user 'newUser'
[root@server1 Assignments]#
[root@server1 Assignments]# usermod -g root newUser
[root@server1 Assignments]#
[root@server1 Assignments]# groupdel edureka
[root@server1 Assignments]#
```

## 6 – Create a temporary user with account valid for 1 day

```
[root@server1 Assignments]# useradd tempUser
[root@server1 Assignments]#
[root@server1 Assignments]# chage tempUser
Changing the aging information for tempUser
Enter the new value, or press ENTER for the default

Minimum Password Age [0]:
Maximum Password Age [99999]:
Last Password Change (YYYY-MM-DD) [2017-05-07]:
Password Expiration Warning [7]:
Password Inactive [-1]:
Account Expiration Date (YYYY-MM-DD) [-1]: 2017-05-08
[root@server1 Assignments]#
[root@server1 Assignments]# chage -l tempUser
Last password change                : May 07, 2017
Password expires                     : never
Password inactive                    : never
Account expires                      : May 08, 2017
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
[root@server1 Assignments]#
```

## **7 – Create a directory with permissions 644**

```
[root@server1 Assignments]#  
[root@server1 Assignments]# umask  
0022  
[root@server1 Assignments]# mkdir assignment5  
[root@server1 Assignments]# ls -ld assignment5/  
drwxr-xr-x. 2 root root 4096 May  7 06:28 assignment5/  
[root@server1 Assignments]# chmod 644 assignment5/  
[root@server1 Assignments]# ls -ld assignment5/  
drw-r--r--. 2 root root 4096 May  7 06:28 assignment5/  
[root@server1 Assignments]#
```

## **8 – Create a script with SUID bit set**

```
[root@server1 assignment5]#  
[root@server1 assignment5]# ls -l script.sh  
-rw-r--r--. 1 root root 103 May  7 06:50 script.sh  
[root@server1 assignment5]# cat script.sh  
#!/bin/bash  
  
echo `whoami`  
echo "As if the root user is running the script since it is owned by root."  
[root@server1 assignment5]# chmod 4755 script.sh  
[root@server1 assignment5]# ls -l script.sh  
-rwsr-xr-x. 1 root root 103 May  7 06:50 script.sh  
[root@server1 assignment5]#  
[root@server1 assignment5]#
```

## **9 – Set ACL permissions, rw access to a user called edureka on file 'test' in home directory**

```
root@akmtir-ThinkPad-T400:/home/akmtir#  
root@akmtir-ThinkPad-T400:/home/akmtir# umount /dev/sda3  
root@akmtir-ThinkPad-T400:/home/akmtir# fdisk -l
```

```
Disk /dev/sda: 256.1 GB, 256059432448 bytes  
255 heads, 63 sectors/track, 31130 cylinders, total 500116079 sectors  
Units = sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x000f3cbc
```

Device	Boot	Start	End	Blocks	Id	System
/dev/sda1	*	2048	491945983	245971968	83	Linux
/dev/sda2		491948030	500115455	4083713	5	Extended
<b>/dev/sda3</b>		<b>491945984</b>	<b>491948029</b>	<b>1023</b>	<b>83</b>	<b>Linux</b>
/dev/sda5		491948032	500115455	4083712	82	Linux swap / Solaris

Partition table entries are not in disk order

```
root@akmtir-ThinkPad-T400:/home/akmtir# mount -t ext4 -o acl /dev/sda3 /DrivePart3/
```

```
root@akmtir-ThinkPad-T400:/home/akmtir#
```

```
root@akmtir-ThinkPad-T400:/home/akmtir#
```

```
root@akmtir-ThinkPad-T400:/home/akmtir#
```

```
root@akmtir-ThinkPad-T400:/home/akmtir# cd /DrivePart3/
```

```
root@akmtir-ThinkPad-T400:/DrivePart3# ls -lahd
```

```
drwxr-xr-x 3 root root 1.0K Mar  9 17:08 .
```

```
root@akmtir-ThinkPad-T400:/DrivePart3#
```

```
root@akmtir-ThinkPad-T400:/DrivePart3# touch fileTest
```

```
root@akmtir-ThinkPad-T400:/DrivePart3# getfacl fileTest
```

```
# file: fileTest
```

```
# owner: root
```

```
# group: root
```

```
user::rw-
```

```
group::r--
```

```
other::r--
```

```
root@akmtir-ThinkPad-T400:/DrivePart3#
```

```
root@akmtir-ThinkPad-T400:/DrivePart3# setfacl -m u:edureka:rw fileTest
```

```
root@akmtir-ThinkPad-T400:/DrivePart3#
```

```
root@akmtir-ThinkPad-T400:/DrivePart3# getfacl fileTest
```

```
# file: fileTest
```

```
# owner: root
```

```
# group: root
```

```
user::rw-
```

```
user:akmtir:rw-
```

```
user:edureka:rw-
```

```
group::r--
```

```
mask::rw-
```

```
other::r--
```

```
root@akmtir-ThinkPad-T400:/DrivePart3#
```