

Group Management

```
[root@localhost ~]#
[root@localhost ~]# groupadd tcs
[root@localhost ~]#
[root@localhost ~]# grep tcs /etc/group
tcs:x:1001:
[root@localhost ~]#
[root@localhost ~]# groupmod -g 1050 tcs
[root@localhost ~]#
[root@localhost ~]# grep tcs /etc/group
tcs:x:1050:
[root@localhost ~]#
[root@localhost ~]# groupmod -n ibm tcs
[root@localhost ~]#
[root@localhost ~]# grep tcs /etc/group
[root@localhost ~]#
[root@localhost ~]# grep ibm /etc/group
ibm:x:1050:
[root@localhost ~]# groupdel ibm
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# groupadd network
[root@localhost ~]#
[root@localhost ~]# grep network /etc/group
network:x:1001:
[root@localhost ~]#
[root@localhost ~]# useradd sachin
[root@localhost ~]#
[root@localhost ~]# grep sachin /etc/passwd
sachin:x:1001:1002::/home/sachin:/bin/bash
[root@localhost ~]#
[root@localhost ~]# grep sachin /etc/group
sachin:x:1002:
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : sachin
[root@localhost ~]#
[root@localhost ~]# id sachin
uid=1001(sachin) gid=1002(sachin) groups=1002(sachin)
[root@localhost ~]#
[root@localhost ~]# usermod -g network sachin
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network
[root@localhost ~]# id sachin
uid=1001(sachin) gid=1001(network) groups=1001(network)
[root@localhost ~]#
[root@localhost ~]#
```

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```
[root@localhost ~]# groupadd cloud
[root@localhost ~]#
[root@localhost ~]# usermod -G cloud sachin
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network cloud
[root@localhost ~]#
[root@localhost ~]# id sachin
uid=1001(sachin) gid=1001(network) groups=1001(network),1003(cloud)
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# groupadd tcs
[root@localhost ~]#
[root@localhost ~]# usermod -a -G tcs sachin
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network cloud tcs
[root@localhost ~]#
[root@localhost ~]# id sachin
uid=1001(sachin) gid=1001(network)
groups=1001(network),1003(cloud),1004(tcs)
[root@localhost ~]#
[root@localhost ~]# groupadd ibm
[root@localhost ~]#
[root@localhost ~]# usermod -a -G ibm sachin
[root@localhost ~]# groups sachin
sachin : network cloud tcs ibm
[root@localhost ~]#
[root@localhost ~]# gpasswd -d sachin tcs
Removing user sachin from group tcs
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network cloud ibm
[root@localhost ~]#
[root@localhost ~]# gpasswd -d sachin ibm
Removing user sachin from group ibm
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network cloud
[root@localhost ~]#
[root@localhost ~]# gpasswd -d sachin cloud
Removing user sachin from group cloud
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : network
[root@localhost ~]#
[root@localhost ~]# gpasswd -d sachin network
Removing user sachin from group network
gpasswd: user 'sachin' is not a member of 'network'
[root@localhost ~]#
[root@localhost ~]# groups sachin
```

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```
sachin : network
[root@localhost ~]# usermod -g sachin sachin
[root@localhost ~]#
[root@localhost ~]# groups sachin
sachin : sachin
[root@localhost ~]#
[root@localhost ~]# groupdel network
[root@localhost ~]#
[root@localhost ~]# userdel -rf sachin
[root@localhost ~]#
[root@localhost ~]# groupadd html
[root@localhost ~]# groupadd java
[root@localhost ~]# groupadd php
[root@localhost ~]#
[root@localhost ~]# tail -3 /etc/group
html:x:1006:
java:x:1007:
php:x:1008:
[root@localhost ~]#
[root@localhost ~]# useradd -G html,java,php rajeev
[root@localhost ~]#
[root@localhost ~]# groups rajeev
rajeev : rajeev html java php
[root@localhost ~]#
[root@localhost ~]# id rajeev
uid=1001(rajeev) gid=1001(rajeev)
groups=1001(rajeev),1006(html),1007(java),1008/php)
[root@localhost ~]#
[root@localhost ~]# tail -4 /etc/group
html:x:1006:rajeev
java:x:1007:rajeev
php:x:1008:rajeev
rajeev:x:1001:
[root@localhost ~]#
[root@localhost ~]# groupadd oracle
[root@localhost ~]#
[root@localhost ~]# usermod -a -G oracle rajeev
[root@localhost ~]#
[root@localhost ~]# groups rajeev
rajeev : rajeev html java php oracle
[root@localhost ~]#
[root@localhost ~]# id rajeev
uid=1001(rajeev) gid=1001(rajeev)
groups=1001(rajeev),1006(html),1007(java),1008/php),1009(oracle)
[root@localhost ~]#
[root@localhost ~]# groupadd pascal
[root@localhost ~]#
[root@localhost ~]# usermod -g pascal rajeev
[root@localhost ~]#
[root@localhost ~]# groups rajeev
rajeev : pascal html java php oracle
```

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```
[root@localhost ~]#  
[root@localhost ~]# id rajeev  
uid=1001(rajeev) gid=1010(pascal)  
groups=1010(pascal),1006(html),1007(java),1008/php),1009(oracle)  
[root@localhost ~]# groupadd redhat  
  
[root@localhost ~]#  
[root@localhost ~]# usermod -g redhat rajeev  
[root@localhost ~]#  
[root@localhost ~]# groups rajeev  
rajeev : redhat html java php oracle  
[root@localhost ~]#  
[root@localhost ~]# id rajeev  
uid=1001(rajeev) gid=1011(redhat)  
groups=1011(redhat),1006(html),1007(java),1008/php),1009(oracle)
```

How to Apply Password Policy for any User ?

```
[root@localhost ~]# useradd alok  
[root@localhost ~]#  
[root@localhost ~]# passwd alok  
Changing password for user alok.  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@localhost ~]#  
[root@localhost ~]# grep alok /etc/passwd  
alok:x:1002:1002::/home/alok:/bin/bash  
[root@localhost ~]#  
[root@localhost ~]# grep alok /etc/shadow  
alok:$6$qctlf6tnbofs2bZM$hmb04dfGfb5HHUq3F4dBEG.NfdfiHcALqprqXzwKcw/P  
gc6y4Dv0bXgJC4YBIIts3XlfKXF1McVJUHTV0q6LGQ0:18066:0:99999:7:::  
[root@localhost ~]#  
[root@localhost ~]# date  
Wed Jun 19 09:09:09 IST 2019  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]# chage -l alok  
Last password change                : Jun 19, 2019  
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@localhost ~]#
```

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```
[root@localhost ~]# chage --help
Usage: chage [options] LOGIN
```

Options:

```
-d, --lastday LAST_DAY      set date of last password change to
LAST_DAY
-E, --expiredate EXPIRE_DATE set account expiration date to
EXPIRE_DATE
-h, --help                  display this help message and exit
-I, --inactive INACTIVE     set password inactive after
expiration
                             to INACTIVE
-l, --list                  show account aging information
-m, --mindays MIN_DAYS      set minimum number of days before
password
                             change to MIN_DAYS
-M, --maxdays MAX_DAYS     set maximum number of days before
password
                             change to MAX_DAYS
-R, --root CHROOT_DIR       directory to chroot into
-W, --warndays WARN_DAYS    set expiration warning days to
WARN_DAYS
```

```
[root@localhost ~]#
[root@localhost ~]# chage -m 10 -M 90 -W 10 -I 15 alok
[root@localhost ~]#
[root@localhost ~]# chage -l alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : Oct 02, 2019
Account expires                 : never
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# chage -E 2022-10-01 alok
[root@localhost ~]#
[root@localhost ~]# chage -l alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : Oct 02, 2019
Account expires                 : Oct 01, 2022
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# grep alok /etc/shadow
alok:$6$qctlf6tnbofs2bZM$hmb04dfGfb5HHUq3F4dBEg.NfdfiHcALqprqXzwKcw/P
gc6y4Dv0bXgJC4YBIIts3XlfKXF1McVJUHTV0q6LGQ0:18066:10:90:10:15:19266:
[root@localhost ~]#
[root@localhost ~]# usermod -e 2023-10-01 alok
```

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```
[root@localhost ~]#
[root@localhost ~]# chage -l   alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : Oct 02, 2019
Account expires                 : Oct 01, 2023
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# chage -E   -1   alok
[root@localhost ~]#
[root@localhost ~]# chage -l   alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : Oct 02, 2019
Account expires                 : never
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# chage -I   -1   alok
[root@localhost ~]#
[root@localhost ~]# chage -l   alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : never
Account expires                 : never
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# chage -m   0   alok
[root@localhost ~]#
[root@localhost ~]# chage -l   alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : never
Account expires                 : never
Minimum number of days between password change : 0
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]#
[root@localhost ~]# chage -W   7   alok
[root@localhost ~]#
[root@localhost ~]# chage -l   alok
Last password change           : Jun 19, 2019
Password expires                : Sep 17, 2019
Password inactive               : never
Account expires                 : never
Minimum number of days between password change : 0
```

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```
Maximum number of days between password change      : 90
Number of days of warning before password expires: 7
[root@localhost ~]#
[root@localhost ~]# chage -M 99999 alok
[root@localhost ~]#
[root@localhost ~]# chage -l alok
Last password change      : Jun 19, 2019
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@localhost ~]#
[root@localhost ~]# useradd deepak
[root@localhost ~]# passwd deepak
Changing password for user deepak.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# chage -E 2023-10-01 deepak
[root@localhost ~]#
[root@localhost ~]# chage -l deepak
Last password change      : Jun 19, 2019
Password expires          : never
Password inactive        : never
Account expires          : Oct 01, 2023
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@localhost ~]#
[root@localhost ~]# chage -d 0 deepak
[root@localhost ~]#
[root@localhost ~]# chage -l deepak
Last password change      : password must be changed
Password expires          : password must be changed
Password inactive        : password must be changed
Account expires          : Oct 01, 2023
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@localhost ~]#
[alok@localhost ~]$ su - deepak
Password: 123
You are required to change your password immediately (administrator
enforced)
Current password:123
New password: Widget_123
Retype new password: Widget_123
```


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```
[deepak@localhost ~]$
[deepak@localhost ~]$ exit
logout
[alok@localhost ~]$
[alok@localhost ~]$ su - deepak
Password: Widget_123
[deepak@localhost ~]$ exit
logout
[alok@localhost ~]$ exit
logout
[root@localhost ~]#
[root@localhost ~]# chage -l deepak
Last password change                : Jun 19, 2019
Password expires                    : never
Password inactive                   : never
Account expires                     : Oct 01, 2023
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@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# useradd raj
[root@localhost ~]# passwd raj
Changing password for user raj.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# chage -E 2023-10-01 -d 0 raj
[root@localhost ~]#
[root@localhost ~]# chage -l raj
Last password change                : password must be changed
Password expires                    : password must be changed
Password inactive                   : password must be changed
Account expires                     : Oct 01, 2023
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@localhost ~]#

[root@localhost ~]# useradd monika
[root@localhost ~]# passwd monika
Changing password for user monika.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# chage monika
Changing the aging information for monika
```


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Enter the new value, or press ENTER for the default

```
Minimum Password Age [0]: 10
Maximum Password Age [99999]: 90
Last Password Change (YYYY-MM-DD) [2019-06-19]:
Password Expiration Warning [7]: 10
Password Inactive [-1]: 15
Account Expiration Date (YYYY-MM-DD) [-1]: 2022-10-01
[root@localhost ~]#
[root@localhost ~]# chage -l monika
Last password change                : Jun 19, 2019
Password expires                    : Sep 17, 2019
Password inactive                   : Oct 02, 2019
Account expires                     : Oct 01, 2022
Minimum number of days between password change : 10
Maximum number of days between password change : 90
Number of days of warning before password expires: 10
[root@localhost ~]# cat /etc/default/useradd
[root@localhost ~]# cat /etc/login.defs
```

SUDO ?

```
[root@localhost ~]# useradd user1
[root@localhost ~]#
[root@localhost ~]# useradd user2
[root@localhost ~]# useradd user3

[root@localhost ~]# passwd user1
Changing password for user user1.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# passwd user2
Changing password for user user2.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# passwd user3
Changing password for user user3.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# groupadd networkteam
```

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```
[root@localhost ~]#
[root@localhost ~]# useradd -G networkteam kapil
[root@localhost ~]# useradd -G networkteam sumit
[root@localhost ~]# useradd -G networkteam amit
[root@localhost ~]#
[root@localhost ~]# passwd kapil
Changing password for user kapil.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# passwd sumit
Changing password for user sumit.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# passwd amit
Changing password for user amit.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
root@localhost ~]# which useradd
/usr/sbin/useradd
[root@localhost ~]# which usermod
/usr/sbin/usermod
[root@localhost ~]#
[root@localhost ~]# which fdisk
/usr/sbin/fdisk
[root@localhost ~]#
[root@localhost ~]# which systemctl
/usr/bin/systemctl
[root@localhost ~]# which reboot
/usr/sbin/reboot
[root@localhost ~]#
[root@localhost ~]# which poweroff
/usr/sbin/poweroff
[root@localhost ~]# vim /etc/sudoers
```

go on line number 100 and add these lines as per need.
Allow root to run any commands anywhere

```
root    ALL=(ALL)        ALL
user1   ALL=(ALL)        ALL
user2   ALL=(ALL)
/usr/sbin/useradd,/usr/sbin/usermod,/usr/sbin/fdisk
user3   ALL=(ALL)        ALL,!/usr/bin/systemctl,!/usr/sbin/reboot
```

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Allows people in group wheel to run all commands

```
%wheel  ALL=(ALL)        ALL
%networkteam  ALL=(ALL)    ALL
```

now save and exit from this files..... :wq!

One more method to define sudo power for any user....

```
[root@localhost ~]# useradd soniya
[root@localhost ~]#
[root@localhost ~]# passwd soniya
Changing password for user soniya.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
[root@localhost ~]# vim /etc/sudoers.d/soniya
```

```
soniya  ALL=(ALL)  ALL
```

now save and exit from the file... :wq!

Now do the testing