

# User and Group Management

## Users name and UID are stored

cat /etc/passwd

```
root@localhost:~# cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/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:/var/ftp:/sbin/nologin
nobody:x:555:555:nobody:/dev:/sbin/nologin
dbus:x:81:81:system message bus:/sbin/nologin
systemd-coredump:x:999:997:systemd Core Dumper:/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/sbin/nologin
tss:x:59:59:Account used by the trousers package to sandbox the tcsd daemon:/dev/null:/sbin/nologin
pkiid:x:996:996:User for pkiid:/sbin/nologin
geoclue:x:997:995:User for geoclue:/var/lib/geoclue:/sbin/nologin
rtkit:x:172:172:realtimekit:/root:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
libstoragemgmt:x:999:992:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
qemu:x:107:107:qemu user:/sbin/nologin
usbmuxd:x:113:113:usbmuxd user:/sbin/nologin
unbound:x:995:990:Unbound DNS resolver:/etc/unbound:/sbin/nologin
rpc:x:32:32:rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
gluster:x:994:993:glusterFS daemon:/run/gluster:/sbin/nologin
chrony:x:993:988:/var/lib/chrony:/sbin/nologin
setroubleshoot:x:925:966:/var/lib/setroubleshoot:/sbin/nologin
pipewire:x:991:985:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
saslauthd:x:980:980:saslauthd user:/run/saslauthd:/sbin/nologin
dnsmasq:x:984:984:dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
caddw:x:75:75:caddw user:/sbin/nologin
clevis:x:983:982:clevis encryption Framework unprivileged user:/var/cache/clevis:/sbin/nologin
cockpit-ws:x:1982:980:User for cockpit web service:/nonexistent:/sbin/nologin
cockpit-winsatellite:x:993:978:User for cockpit-ws instances:/nonexistent:/sbin/nologin
sssd:x:980:978:User for sssd:/sbin/nologin
flatpak:x:979:978:User for flatpak system helpers:/sbin/nologin
colord:x:978:976:User for colord:/var/lib/colord:/sbin/nologin
gdm:x:42:42:/var/lib/gdm:/sbin/nologin
pcuser:x:124:124:PC Service User:/var/lib/pc:/sbin/nologin
gnome-initial-setup:x:977:975:/run/gnome-initial-setup:/sbin/nologin
smbd:x:74:74:SMB service-separated Smb:/var/empty/smbd:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
rngd:x:976:974:Random Number Generator Daemon:/var/lib/rngd:/sbin/nologin
tcpdump:x:72:72:/sbin/nologin
vgandhi:x:1000:1000:veek gandhi:/home/vgandhi:/bin/bash
root@localhost ~#
```

## User's password is stored

cat /etc/shadow

```
root@localhost:~# cat /etc/shadow
root:$6$19Pmewy32cf8Bh0g0$1pfe3eXqpw81efqXceD11xIdhcAsyvB5oCC95efhcR46kuImK2cy9NHB85Nj/3/nm9KADg0::10:99999:7:::
bin:*:18199:0:99999:7:::
daemon:*:18199:0:99999:7:::
adm:*:18199:0:99999:7:::
lp:*:18199:0:99999:7:::
sync:*:18199:0:99999:7:::
shutdown:*:18199:0:99999:7:::
halt:*:18199:0:99999:7:::
mail:*:18199:0:99999:7:::
operator:*:18199:0:99999:7:::
games:*:18199:0:99999:7:::
ftp:*:18199:0:99999:7:::
nobody:*:18199:0:99999:7:::
dbus:!:19012:::
systemd-coredump:!:19012:::
systemd-resolve:!:19012:::
tss:!:19012:::
pkiid:!:19012:::
geoclue:!:19012:::
rtkit:!:19012:::
pulse:!:19012:::
libstoragemgmt:!:19012:::
qemu:!:19012:::
usbmuxd:!:19012:::
unbound:!:19012:::
rpc:!:19012:0:99999:7:::
gluster:!:19012:::
chrony:!:19012:::
setroubleshoot:!:19012:::
pipewire:!:19012:::
saslauthd:!:19012:::
dnsmasq:!:19012:::
caddw:!:19012:::
clevis:!:19012:::
cockpit-ws:!:19012:::
cockpit-winsatellite:!:19012:::
sssd:!:19012:::
flatpak:!:19012:::
colord:!:19012:::
gdm:!:19012:::
pcuser:!:19012:::
gnome-initial-setup:!:19012:::
smbd:!:19012:::
avahi:!:19012:::
rngd:!:19012:::
tcpdump:!:19012:::
vgandhi:$6$TtUc0CkYOCFKdV1n8q3Kb9s6go4AFZrFm0x3oV2KCh6Y8JL0r8VtK4lTt12nJcPqR9p98c8ELu5rQ/HgseXqjABRavM::10:99999:7:::
root@localhost ~#
```

## switch user

su -

```
[root@localhost ~]# su vivek
[vivek@localhost root]$ su root
Password:
[root@localhost ~]#
```

## default settings for all users when starting a login shell

```
root@localhost ~# cat /etc/profile
# /etc/profile
# System wide environment and startup programs, for login setup
# Functions and aliases go in /etc/bashrc

# It's NOT a good idea to change this file unless you know what you
# are doing. It's much better to create a custom.sh shell script in
# /etc/profile.d/ to make custom changes to your environment, as this
# will prevent the need for merging in future updates.

pathmunge () {
    case "$PATH:" in
        *"$1"*)
            ;;
        *)
            if [ "$2" = "after" ] ; then
                PATH=$PATH:$1
            else
                PATH=$1:$PATH
            fi
        esac
    }

if [ -x /usr/bin/id ] ; then
    if [ -z "$EUID" ] ; then
        # bash workaround
        EUID=$(/usr/bin/id -u)
        UID=$(/usr/bin/id -ru)
    fi
    USER=$(/usr/bin/id -un)
    LOGNAME=$USER
    MAIL="/var/spool/mail/$USER"
fi

# Path manipulation
if [ "$EUID" = "0" ] ; then
```

# User and Group Management

## define defaults for all users when starting a subshell

```
vivek@localhost-
[root@localhost ~]# cat /etc/bashrc
# /etc/bashrc

# System wide functions and aliases
# Environment stuff goes in /etc/profile

# It's NOT a good idea to change this file unless you know what you
# are doing. It's much better to create a custom.sh shell script in
# /etc/profile.d/ to make custom changes to your environment, as this
# will prevent the need for merging in future updates.

# Prevent doublesourcing
if [ -z "$BASHRC_SOURCED" ]; then
    BASHRC_SOURCED="Y"

# Are we an interactive shell?
if [ "$PS1" ]; then
    if [ -z "$PROMPT_COMMAND" ]; then
        case $TERM in
            xterm|vte*)
                if [ -e /etc/sysconfig/bash-prompt-xterm ]; then
                    PROMPT_COMMAND=/etc/sysconfig/bash-prompt-xterm
                elif [ "$VTE_VERSION:-0" -ge 3405 ]; then
                    PROMPT_COMMAND=_vte_prompt_command
                else
                    PROMPT_COMMAND='printf "\033]0;${s}:\007" "${USER}" "${HOSTNAME%%.}" "${PWD/#$HOME/\~}"'
                fi
                ;;
            screen*)
                if [ -e /etc/sysconfig/bash-prompt-screen ]; then
                    PROMPT_COMMAND=/etc/sysconfig/bash-prompt-screen
                else
                    PROMPT_COMMAND='printf "\033k${s}:\033\0" "${USER}" "${HOSTNAME%%.}" "${PWD/#$HOME/\~}"'
                fi
                ;;
            *)
                [ -e /etc/sysconfig/bash-prompt-default ] && PROMPT_COMMAND=/etc/sysconfig/bash-prompt-default
                ;;
        esac
    fi

# Turn on parallel history
shopt -s histappend
history -a
# Turn on checkwinsize
shopt -s checkwinsize
[ "$PS1" = "\s-\v\$\$ " ] && PS1="\u@h \W\$\$ "
# You might want to have e.g. tty in prompt (e.g. more virtual machines)
# and console windows
# If you want to do so, just add e.g.
```

## Creating a user

useradd name

```
[root@localhost home]# ls
vgandhi  vivek
[root@localhost home]# useradd pooja
Creating mailbox file: File exists
[root@localhost home]# ls
pooja  vgandhi  vivek
[root@localhost home]#
```

## create a user with our own attributes

```
[root@localhost home]# useradd qq -u 1072 -d /home/qq -c TEST
[root@localhost home]# ls
1  pooja  qq  vgandhi  vivek
```

```
[root@localhost home]# ls
1  pooja  qq  vgandhi  vivek
[root@localhost home]# rm -rf 1
[root@localhost home]# rm -rf qq
[root@localhost home]# ls
pooja  vgandhi  vivek
```

## Assigning password to the user

```
[root@localhost home]# passwd pooja
Changing password for user pooja.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost home]#
```

# User and Group Management

## The password parameters

```
[root@localhost home]# chage -l pooja
Last password change           : Feb 08, 2022
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 home]#
```

## newname to lock the user account

```
[root@localhost home]# usermod -L vivek
[root@localhost home]# grep vivek /etc/shadow
vivek:!!$6$efegYsy2YAgSrDvK$7t9M0xmSzg0JG06S0Srg/flj2vOAcDzTUuytTmDzDjhTAkIO3UF9a./c2.tTlYoTjl0q2KtnMg//ogr0CDhVF0:19030:0:99999:7:::
[root@localhost home]#
```

account is locked it will show '!' (Exclamation mark) in `/etc/shadow` file

## newname to unlock the user account

```
[root@localhost home]# usermod -U vivek
[root@localhost home]# grep vivek /etc/shadow
vivek:$6$6fegYsy2YAgSrDvK$7t9M0xmSzg0JG06S0Srg/flj2vOAcDzTUuytTmDzDjhTAkIO3UF9a./c2.tTlYoTjl0q2KtnMg//ogr0CDhVF0:19030:0:99999:7:::
[root@localhost home]#
```

## Deleting a User

```
[root@localhost home]# useradd aa
[root@localhost home]# ls
aa  vgandhi  vivek
[root@localhost home]# userdel aa
[root@localhost home]# ls
aa  vgandhi  vivek
[root@localhost home]# rm -rf aa
[root@localhost home]# ls
vgandhi  vivek
[root@localhost home]#
```

## GROUP ADMINISTRATION

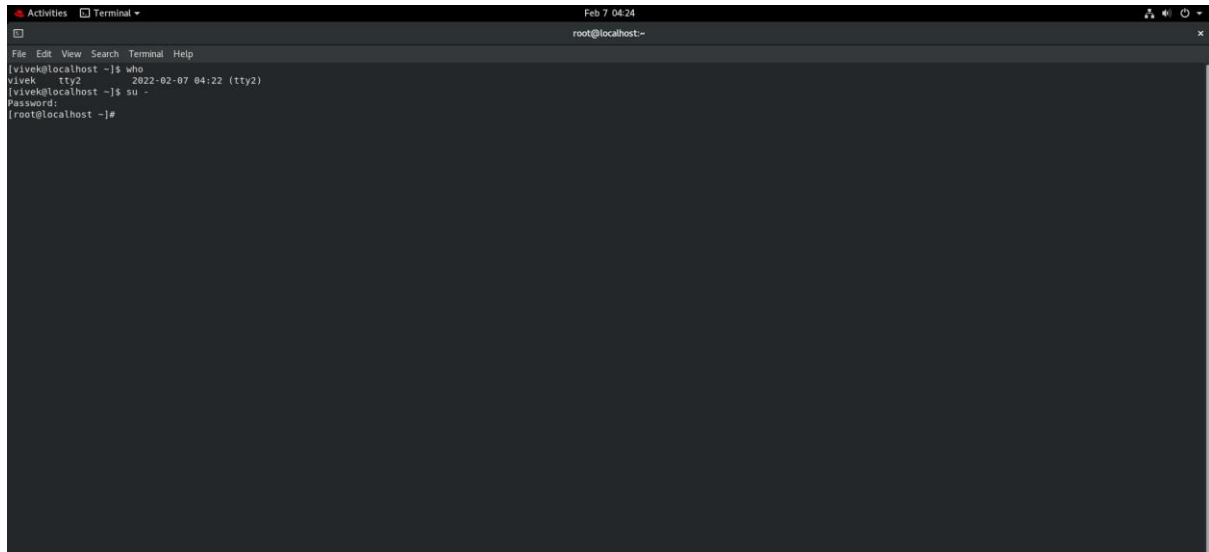
```
[root@localhost home]# groupadd test
[root@localhost home]# ls
vgandhi  vivek
[root@localhost home]# useradd p
[root@localhost home]# ls
p  vgandhi  vivek
[root@localhost home]# passwd p
Changing password for user p.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost home]# groupadd -G test p
groupadd: invalid option -- 'G'
Usage: groupadd [options] GROUP

Options:
  -f, --force                exit successfully if the group already exists,
                             and cancel -g if the GID is already used
  -g, --gid GID              use GID for the new group
  -h, --help                 display this help message and exit
  -K, --key KEY=VALUE        override /etc/login.defs defaults
  -o, --non-unique            allow to create groups with duplicate
                             (non-unique) GID
  -p, --password PASSWORD    use this encrypted password for the new group
  -r, --system               create a system account
  -R, --root CHROOT_DIR      directory to chroot into
  -P, --prefix PREFIX_DIR    directory prefix
```

```
[root@localhost home]# usermod -G test p
[root@localhost home]#
```

```
test:x:2000:p
```

# User and Group Management



A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a title bar (Feb 7 04:24, root@localhost:~). The terminal shows the following commands and output:

```
[vivek@localhost ~]$ who
vivek    tty2          2022-02-07 04:22 (tty2)
[vivek@localhost ~]$ su -
Password:
[root@localhost ~]#
```

