

```
[root@13228b460db] /# cat /etc/passwd
root:x:0:root:/root:/bin/bash
bin:x: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
[root@13228b460db] /#
ftp:x:14:0:FTP user:/var/ftp:/sbin/nologin
nobody:x:65534:65534::kernel Overflow User:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-coredump:x:999:999::systemd Core Dumper:/:/sbin/nologin
systemd-resolve:x:193:193::Systemd Resolve:/:/sbin/nologin
ss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin
unbound:x:998:996:Unbound DNS resolver:/etc/unbound:/sbin/nologin
Ali:x:1000:1000:/home/Ali:/bin/bash
SaIem:x:1001:1001:/home/SaIem:/bin/bash
Sara:x:1002:1002:/home/Sara:/bin/bash
Deem:x:1003:1003:/home/Deem:/bin/bash
Hanan:x:1004:1004:/home/Hanan:/bin/bash
NaIf:x:1005:1005:/home/NaIf:/bin/bash
Nourdi:x:1006:1006:/home/Nourdi:/bin/bash
Khaled:x:1007:1007:/home/Khaled:/bin/bash
[root@13228b460db] /# cat /etc/shadow
root:$6$onPnc13k.LjOrNh5Uihka9NA9RMme..2.aRWj5woj/rLfef/ZxVjP/$J7MouohtKLtKhmqxwRVvH/zTvlREN55skBHFjYngG19vc6Q:19593:0:99999:7:::
bin:*:18397:0:99999:7:::
daemon*:18397:0:99999:7:::
adm:*:18397:0:99999:7:::
lp:*:18397:0:99999:7:::
sync:*:18397:0:99999:7:::
shutdown*:18397:0:99999:7:::
halt*:18397:0:99999:7:::
mail*:18397:0:99999:7:::
operator*:18397:0:99999:7:::
games*:18397:0:99999:7:::
ftp*:18397:0:99999:7:::
nobody*:18397:0:99999:7:::
dbus:!:18885:::::
systemd-coredump:!:18885::::::
systemd-resolve:!:18885::::::
tss:!!:19589:::::
unbound:!!:19589:::::
[Ali]:$6$zajmaAqtkNnuatToFS3KtpYnL.dgvRlXxu9v6P88FpICkyKnCdD12AoDEIFUXNPf5GuonuOnTdjsYacOZKwwjgd17ydtCivAgvjCBzr.:19593:0:99999:7:::
SaIem:565zwbcwsl5xGNxbHULp7KgsINKO05xdteWp29cZndGUCfIEPiPyv4o68fYzf2fwOPanXJUh.9k3sv3TiIn9MPdpvkmkof.pwu98jk1.:19593:0:99999:7:::
Sara:$6$cZc45D0gPId5H4y2orcxT19FAZ2.obkQoz4ByP4toCcfRfVosU49kfuxqgPJlJIn.kBwZPf7qoq8TembtFQBkmwctUy:19593:0:99999:7:::
Deem:$6$omMompNlHSyHB8SlPuOR.357ItZrK80EPE2cmIenvJVeW.13L.u5K0UDJ2a100Xhkb7eIntJK8GhjY1t6GrFXe6vgqkHGexU5.:19593:0:99999:7:::
Hanan:$6$ql3hntDGeeRJGPY3GBbbp30ZcuspyuIP/QnbVGRLhcSqxpFenkqEG9gmDeJgl1Bl9etr301rx9dmcE2F3ij268IMnvFT9iloshS4.:19593:0:99999:7:::
NaIf:$6$wtq/BgchysylFRdu546FD2MSRuguhgSk3mwLDXkt/Lk53p.1b9jYsqzh9qbkEzpaka6ukrlwlSEmp.1p9SAZzoJzw1G.bBB.:19593:0:99999:7:::
Nourdi:$6$5vZu0t9tYlvun56tUp7PlqCGweq2LEdaedgrVhoz3WtFEUB.dt802eqg908IBNSotLLjHBMGmGybUN7Vym9rzncQ7mhl.:19593:0:99999:7:::
Khaled:$6$vdZu0t9tYlvun56tUp7PlqCGweq2LEdaedgrVhoz3WtFEUB.dt802eqg908IBNSotLLjHBMGmGybUN7Vym9rzncQ7mhl.:19593:0:99999:7:::
[root@13228b460db] /# cat /etc/group
root:x:0:
bin:x:1:
daemon:x:2:
sys:x:3:
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@f13228b460db/
Naif:$6$1qW/BGkhtsyfLRDU$5eH644FD2TMSRuGghUSk3Mw1bXKt/Lk$3P.199jYSqZH9qX8EkZpa66ukLrWLsem3.p199SA7Z0Jzw1IG.8Bb.;19593:0:99999:7:::
Nourah:$6$46rEGDpc242prWg$1yLun56tuyfZPLqEowqeJ2lEdaedgRYhoz3wIFBU.d1B02wq99081BN5otLJHbAGmcybUN7Vvnm9rzmcQ17mh1.;19593:0:99999:7:::
Khaled:$6$VdzJUbargCe7QHvF$1bvQN10x16899LYEUDmEocok2Yuews8sNTKJp1J1iup2kn7yL7qpUz0ITCvpEnHF4RuZmk0m1QyQ1gk81wKUE/;19593:0:99999:7:::
[root@f13228b460db /]# cat /etc/group
root:x:0:
bin:x:1:
daemon:x:2:
sys:x:3:
adm:x:4:
tty:x:5:
disk:x:6:
lp:x:7:
mem:x:8:
kmem:x:9:
wheel:x:10:
cdrom:x:11:
mail:x:12:
man:x:13:
dialout:x:18:
floppy:x:19:
games:x:20:
tape:x:33:
video:x:39:
ftp:x:50:
lock:x:54:
audio:x:63:
users:x:100:
nobody:x:65534:
dbus:x:81:
utmp:x:22:
utempter:x:35:
input:x:999:
kvm:x:36:
render:x:998:
systemd-journal:x:190:
systemd-coredump:x:997:
systemd-resolve:x:193:
tss:x:59:
unbound:x:996:
A11:x:1000:
Salem:x:1001:
Sara:x:1002:
Deem:x:1003:
Hanan:x:1004:
Naif:x:1005:
Nourah:x:1006:
Khaled:x:1007:
CEO:x:1008:A11
Manger:x:1009:Salem
HR:x:1010:Salem,Nourah,Deem
Shipping:x:1011:Sara,Naif
Sales:x:1012:Hanan,Khaled
[root@f13228b460db /]#
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@f13228b460db /  
[root@f13228b460db ~]# sudo useradd Ali  
[root@f13228b460db ~]# sudo useradd Salem  
[root@f13228b460db ~]# sudo useradd Sara  
[root@f13228b460db ~]# sudo useradd Deem  
[root@f13228b460db ~]# sudo useradd Hanan  
[root@f13228b460db ~]# sudo useradd Naif  
[root@f13228b460db ~]# sudo useradd Nourah  
[root@f13228b460db ~]# sudo useradd Khaled  
[root@f13228b460db ~]# sudo passwd Ali  
Changing password for user Ali.  
New password:  
Retype new password:  
Sorry, passwords do not match.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Salem  
Changing password for user Salem.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Sara  
Changing password for user Sara.  
New password:  
Retype new password:  
Sorry, passwords do not match.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Deem  
Changing password for user Deem.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Hanan  
Changing password for user Hanan.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Naif  
Changing password for user Naif.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Nourah  
Changing password for user Nourah.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo passwd Khaled  
Changing password for user Khaled.  
New password:  
Retype new password:  
Sorry, passwords do not match.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[root@f13228b460db ~]# sudo groupadd CEO  
[root@f13228b460db ~]# sudo groupadd Manger
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@f13228b460db/
[root@f13228b460db /]# sudo groupadd Manger
[root@f13228b460db /]# sudo groupadd HR
[root@f13228b460db /]# sudo groupadd Shipping
[root@f13228b460db /]# sudo groupadd Sales
[root@f13228b460db /]# sudo usermod -aG CEO Ali
[root@f13228b460db /]# sudo usermod -aG Manger Salem
[root@f13228b460db /]# sudo usermod -aG HR salem Nourah Deem
Usage: usermod [options] LOGIN

Options:
-c, --comment COMMENT      new value of the GECOS field
-d, --home HOME_DIR        new home directory for the user account
-e, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
-f, --inactive INACTIVE    set password inactive after expiration
                             to INACTIVE
-g, --gid GROUP             force use GROUP as new primary group
-G, --groups GROUPS        new list of supplementary GROUPS
-a, --append                append the user to the supplemental GROUPS
                             mentioned by the -G option without removing
                             the user from other groups
-h, --help                 display this help message and exit
-l, --login NEW_LOGIN      new value of the login name
-L, --lock                 lock the user account
-m, --move-home            move contents of the home directory to the
                             new location (use only with -d)
-o, --non-unique            allow using duplicate (non-unique) UID
-p, --password PASSWORD    use encrypted password for the new password
-R, --root CHROOT_DIR       directory to chroot into
-P, --prefix PREFIX_DIR    prefix directory where are located the /etc/* files
-s, --shell SHELL          new login shell for the user account
-u, --uid UID              new UID for the user account
-U, --unlock               unlock the user account
-v, --add-subuids FIRST-LAST add range of subordinate uids
-V, --del-subuids FIRST-LAST remove range of subordinate uids
-w, --add-subgids FIRST-LAST add range of subordinate gids
-W, --del-subgids FIRST-LAST remove range of subordinate gids
-Z, --selinux-user SEUSER  new SELinux user mapping for the user account

[root@f13228b460db /]# sudo usermod -aG HR salem
usermod: user 'salem' does not exist
[root@f13228b460db /]# sudo usermod -aG HR Salem
[root@f13228b460db /]# sudo usermod -aG HR Nourah
[root@f13228b460db /]# sudo usermod -aG HR Deem
[root@f13228b460db /]# sudo usermod -aG Shipping Sara
[root@f13228b460db /]# sudo usermod -aG Shipping Naif
[root@f13228b460db /]# sudo usermod -aG Sales Hanan
[root@f13228b460db /]# sudo usermod -aG Sales Khaled
[root@f13228b460db /]# sudo gpasswd CEO
Changing the password for group CEO
New Password:
Re-enter new password:
[root@f13228b460db /]# sudo gpasswd HR
Changing the password for group HR
New Password:
Re-enter new password:
They don't match; try again
New Password:
Re-enter new password:
They don't match; try again

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@f13228b460db/
[root@f13228b460db /]# sudo gpasswd HR
Changing the password for group HR
New Password:
Re-enter new password:
They don't match; try again
New Password:
Re-enter new password:
They don't match; try again
New Password:
Re-enter new password:
gpasswd: Try again later
[root@f13228b460db /]# sudo gpasswd Sales
Changing the password for group Sales
New Password:
Re-enter new password:
They don't match; try again
New Password:
Re-enter new password:
They don't match; try again
New Password:
Re-enter new password:
[root@f13228b460db /]# ls
bin          dev          lib          lost+found  opt         run         sys         var
boot        etc          lib64        media       proc        sbin        tmp
calendar.txt home         logs.txt    mnt         root        srv         usr
[root@f13228b460db /]# /etc/passwd & /etc/shadow & /etc/group
[1] 233
[2] 234
bash: /etc/passwd: Permission denied
bash: /etc/shadow: Permission denied
bash: /etc/group: Permission denied
[1]- Exit 126          /etc/passwd
[2]+ Exit 126          /etc/shadow
[root@f13228b460db /]# sudo /etc/passwd & /etc/shadow & /etc/group
[1] 236
[2] 237
bash: /etc/shadow: Permission denied
bash: /etc/group: Permission denied
[2]+ Exit 126          /etc/shadow
[root@f13228b460db /]# sudo: /etc/passwd: command not found
sudo /etc/passwd & /etc
[1]+ Exit 1            sudo /etc/passwd
[root@f13228b460db /]# sudo /etc/passwd & /etc/shadow & /etc/group
[1] 239
[2] 240
bash: /etc/shadow: Permission denied
bash: /etc/group: Permission denied
[2]+ Exit 126          /etc/shadow
[root@f13228b460db /]# sudo: /etc/passwd: command not found
[1]+ Exit 1            sudo /etc/passwd
[root@f13228b460db /]# sudo /etc/passwd
sudo: /etc/passwd: command not found
[root@f13228b460db /]# 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
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin

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daemon:x:2::daemon:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:0:0:sync:/sbin/bin/sync
shutdown:x:6:0:shutdown:/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
[root@f13228b460db /]#
[root@f13228b460db /]#
nobody:x:65534:65534::kernel Overflow user:::/sbin/nologin
dbus:x: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 for TFM access:/dev/null:/sbin/nologin
unbound:x:998:996::Unbound DNS resolver:/etc/unbound:/sbin/nologin
Atix:x:1000:1000::/home/Atix:/bin/bash
Salem:x:1001:1001::/home/Salem:/bin/bash
Sara:x:1002:1002::/home/Sara:/bin/bash
Deem:x:1003:1003::/home/Deem:/bin/bash
Hanani:x:1004:1004::/home/Hanani:/bin/bash
Naif:x:1005:1005::/home/Naif:/bin/bash
Nourah:x:1006:1006::/home/Nourah:/bin/bash
Khaled,x:1007:1007::/home/Khaled:/bin/bash
[root@f13228b460db /]# cat /etc/shadow
root:$6$RvWzCkxibJbZorWUjLkA9NA$BmNe.2.arVwjsWoJRLEF/zXVjp/j57MOuhTKLkthmeqXrwVH/zYtIREN5SkbskhfYngG19vcO:19589:0:0:99999:7:::
bin:*:18397:0:99999:7:::
daemon:*:18397:0:99999:7:::
adm:*:18397:0:99999:7:::
lp:*:18397:0:99999:7:::
sync:*:18397:0:99999:7:::
shutdown:*:18397:0:99999:7:::
halt:*:18397:0:99999:7:::
mail:*:18397:0:99999:7:::
operator:*:18397:0:99999:7:::
games:*:18397:0:99999:7:::
ftp:*:18397:0:99999:7:::
nobody:*:18397:0:99999:7:::
dbus:!!:18885:::::
systemd-coredump:!!:18885:::::
systemd-resolve:!!:18885:::::
tss:!!:19589:::::
unbound:!!:19589:::::
1:1652a:jm4AQtkENuaTfo$5$KtpyN1.dGVrLXXu9VP68PFICyKNcdDl2AdoEIFUXNP9SGuounTdNJSyacOzkwwjd7lydtcyGAJVcBRz.:19593:0:99999:7:::
Salem:$6$wxBCwfsL5XGNxbar9SUZ7KgsInKo05xdTmm2P9CzdncGUCCFIEPny6V4082FY2fbwPANXjHw.9k3sv3TrtnNg9Mbdvknaq.fpw98Jkl:19593:0:99999:7:::
Sara:$6$c.zp3bfmPLdqgdhdSDGrIPsdHay2orGXTl9FA2.f0BFkoZ4ByP41ogCfrFvosI49KFucPVPHJjh.k9w2PT7ggQg8TenfDR8MGmOt0:/19593:0:99999:7:::
Deem:$6$omRomnpNIH5YMubHS1PuOr/357iZrK8OEPEzmIwenYew.l3L.uSk5Qdzay10oxh87heWIn7KE8ghy1jTqGrFeQvgkgHexu5:/19593:0:99999:7:::
Nourah:$6$6vGpBqkhtsfYRLMDH5e1Hgq4FD2MSRUrgohsk3MwlBXkt/Lks3P.i39j5yQsyJa9REKzdpae6ukllw.sem3.p1995A7ZozJzw1G.Bbb./19593:0:99999:7:::
Nourah:$6$4deEGOpC242prMgx5TyL.un56tuyFZPLqeQmwE2JLedaedGRyhoo3WIFBU.dBOZWag908IBnS0tJhBMGMgybUN7vvrv9rmzcQT7mh1:/19593:0:99999:7:::
Khaled:$6$vdZJoarcGe7QHVFslBVqn016899LYEuDmeOCock2Yuews8ntKcjPl1jutkn7yl7qpUZO1TCvpEnHF4RuZmknlQyqlgkBWKUE:/19593:0:99999:7:::
[root@f13228b460db /]# cat /etc/group
root:x:0:0:/:/bin:/usr/sbin/passwd
bin:x:1:
daemon:x:2:
sys:x:3:
adm:x:4:
tty:x:5:
disk:x:6:
```

```
@f13228b460db:/
Khaled:$6sVdzJUoangCe/QHVf$LBvQN|0X16899LYEUDmE0coK2Yuews8sNTKJp1j11up2kn7yL7qpUZO|TCVpEnHf4RuZmk0nIqyQlgk81wKUE/:19593;0:99999;7:::
[root@f13228b460db /]# cat /etc/group
root:x:0:
bin:x:1:
daemon:x:2:
sys:x:3:
adm:x:4:
tty:x:5:
disk:x:6:
lp:x:7:
mem:x:8:
kmem:x:9:
wheel:x:10:
cdrom:x:11:
mail:x:12:
man:x:13:
dialout:x:18:
floppy:x:19:
games:x:20:
tape:x:33:
video:x:39:
ftp:x:50:
lock:x:54:
audio:x:63:
users:x:100:
nobody:x:65534:
dbus:x:81:
utmp:x:22:
utempter:x:35:
input:x:999:
kvm:x:36:
render:x:998:
systemd-journal:x:190:
systemd-coredump:x:997:
systemd-resolve:x:193:
tss:x:59:
unbound:x:996:
Ali:x:1000:
Salem:x:1001:
Sara:x:1002:
Deem:x:1003:
Hanan:x:1004:
Naif:x:1005:
Nourah:x:1006:
Khaled:x:1007:
CEO:x:1008:Ali
Manger:x:1009:Salem
HR:x:1010:Salem,Nourah,Deem
Shipping:x:1011:Sara,Naif
Sales:x:1012:Hanan,Khaled
[root@f13228b460db /]#
```