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## Linux User and Group Management

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### Due date

End of Week 10 lab class

### Evaluation

3% of final grade.

### Submission

Hand in or email (in email subject line: CST8102-15W lab7 submission) completed lab before due date.

### Materials

- Student laptop computer
- Ubuntu 14.04.1 installed in VMWare Workstation

### Procedure

1. Log in to root account with the command: **su - root**
  - a. Create the following account using **useradd** command:

username: **user501**

home directory: **/home/user501home** (*create the user's home directory if not exist*)

login shell: **/bin/bash**

Record the command you use

```
useradd user501 -d /home/user501home -m -s /bin/bash
```

- b. Define password for this user account and record the command you use

```
passwd user501
```

- c. Verify that the information of the new user account is recorded in the `/etc/passwd` file by typing commands:

- `cat /etc/passwd | grep user501`
- `cat /etc/group | grep user501`

- d. What is the initial group of `user501`? `user501`

2. Delete the user account, `user501`. Make sure the user's home directory is removed, as well as all files stored in it.

- a. Record the command you use:

```
userdel -r user501
```

- b. Record the commands you use to verify the user account and the user's home directory are deleted.

```
cat /etc/passwd | grep user501
```

```
ls /home
```

- c. Record the output of the command: `grep user501 /etc/group`

```
none
```

3. Use the `useradd` command to create the following user account:

username: `user502`

home directory: `/home/user502` (*create the user's home directory if not exist*)

initial group: `users`

login shell: `/bin/bash`

expiration date: `2015-12-31`

- a. Record the command you use

```
useradd -m -g users -s /bin/bash -e 2015-12-31 user502
```

- b. Define password for this user account using **passwd** command
- c. Record the commands you use to verify the user account is created:

```
grep user502 /etc/passwd  
ls /home
```

- d. Log in to **user502** with the command: **su - user502**, and copy **/etc/fstab** to **user502**'s home directory with the following command:  
**cp /etc/fstab ~/**

- e. List all files in **user502**'s home directory with the command:  
**ls /home/user502**

4. Switch to **root** user account with the command **su - root**, and change the home directory of **user502** to **/home/user502home**, (Please note that the contents of the current home directory should be moved to the new home directory, which should be created if it does not already exist.)

- a. Record the command you use:

```
usermod -d /home/user502home -m user502
```

- b. Log in to **user502** with the command: **su - user502**

- c. Record the commands you use to verify the user's home directory has changed to **/home/user102home**

```
cat /etc/passwd | grep user502  
ls /home
```

5. Log in as **user502**, and change the login shell of **user502** to **/bin/sh**

- a. Record the command you use:

```
chsh -s /bin/sh
```

- b. What is the command you use to verify the login shell has been changed to **/bin/sh**?

```
grep user502 /etc/passwd
```

- c. Switch to **root**, and change the login shell back to **/bin/bash** for **user502**, record the command used:

```
usermod -s /bin/bash user502
```

6. a. Change the primary (initial) group of **user502** to **root**, and record the command you use:

```
usermod -g root user502
```

- b. Create a new group named **cst8102labs**, and record the command you use:

```
groupadd cst8102labs
```

- c. Let **user502** join the group **cst8102labs** as a supplementary group, and record the command you use:

```
usermod -G cst8102labs user502
```

- d. What is the output of the command: **groups user502**?

```
user502: root cst8102labs
```

7. a. Log in to **user502** with the command **su - user502**, and change **user502**'s group ID (initial group) to **cst8102labs** for the duration of current session, and record the command you use:

```
newgrp cst8102labs
```

- b. What is the output of the command: **groups**?

```
cst8102labs root
```

- c. Log in to root and create a new group named **test**  
d. Create a password for the group **test**, and record the command you use:

```
gpasswd test
```

- e. Log in to **user502** with the command **su - user502**, and change **user502**'s group ID (initial group) to **test** for the duration of current session, and record the command you use:

```
newgrp test
```

- f. What is the output of the command: **groups**?

```
test root cst8102labs
```

8. Create the following user accounts using **useradd** commands:

- Mick Jagger - login name: **mickj**
- Jones Brian - login name: **jonesb**
- Keith Richards - login name: **keithr**
- Charlie Watts - login name: **charliew**

a. Create a group named **stones**, record the command used

```
groupadd stones
```

b. Designate **Mick Jagger** as the group administrator, and record the command you use:

```
gpasswd -A mickj stones
```

c. Login as **mickj**, and add all the above user accounts to the group **stones**, record the commands you use:

```
gpasswd -a jonesb stones  
gpasswd -a keithr stones  
gpasswd -a charliew stones
```

d. What is the output of the command `cat /etc/group | grep stones?`

```
stones:x:1007:jonesb,keithr,charliew
```