ISQS 3349
Exam 1 / Fall 2009
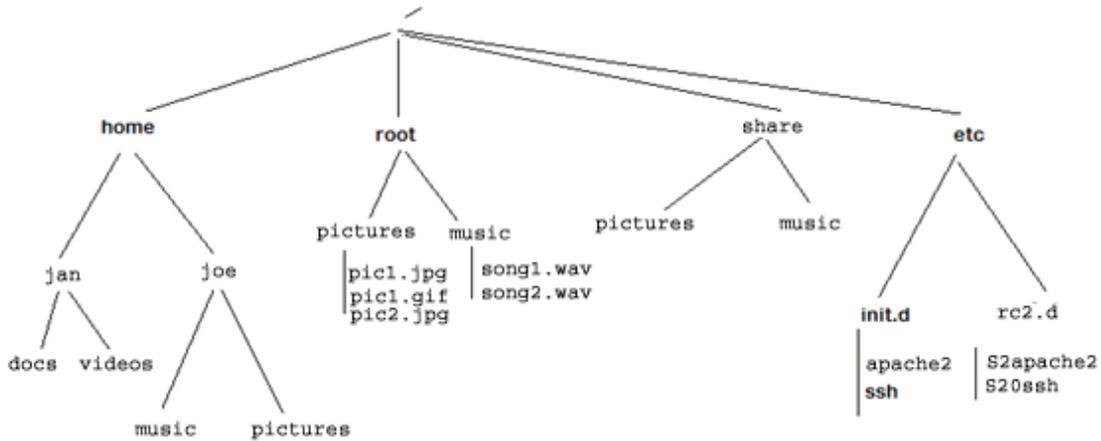
Permissions on /home/jan are 750 with owner/group jan.jan
Permissions on /home/joe are 770 with owner/group joe.joe
Permissions on /root are 775 with owner/group root.root
Permissions on the entire /share directory are 770 with owner joe.joe

Assume on each question that:

jan is logged in
pwd is /home/jan

Permissions on other system directories / files are default.

Partial contents of /etc/passwd:

joe:x:1004:1004::/home/joe:/bin/bash
jan:x:1005:1005::/home/jan:/bin/bash

Partial content of /etc/group:

admin:x:100:joe
joe:x:1004:
jan:x:1005:

Members of the group "admin" have sudoer's permissions to "ALL".

jan knows joe's and root's password

Give the commands for each of the following:

Answer 1 – 5 logged in as your id on Ubuntu.

1. Using sftp, get the shell script from tgiddens2.ba.ttu.edu from a location to be given to you by the instructor and place it into root's home directory.

   su -

   sftp spring1@tgiddens2.ba.ttu.edu

   get /isqs3349/exfall2009Setup.sh

   2. Run the shell script downloaded in #1.

      su -

       ./exfall2009Setup.sh

      or

       sh exfall2009Setup.sh

3. Change jan's and joe's passwords.

      Su -

       passwd joe
       passwd jan

4. Where is jan's home directory?
   Does user 'jan' have access to joe's home directory?

       /home/jan
       not as jan, but she knows joe's password so can "su - joe"

5. Where is joe's home directory?
   Does user 'joe' have access to jan's home directory?

       /home/joe
       not as joe, but he can sudo "sudo su - jan"

Answer the following logged in as jan with a pwd of /home/jan.

6. Change to joe's home directory.

> su - joe

7. Make a new directory in **/share** called '**docs**'.   Make another directory under "**docs**" called "**project**".   Use absolute addressing on all files/paths.

> Su -
> mkdir /share/docs
> mkdir /share/docs/project

8. Copy the files from root's pictures and music to the corresponding directories under /share.

Absolute

> **Su -**
> **cp   /root/pictures/* /share/pictures**
> **cp   /root/music/*   /share/music**

Relative

> **su -**
> **cp   pictures/* ../share/pictures**
> **cp   music/* ../share/music**

9. Move the pictures and music directories from under share to the new directory created in # 7 (/share/docs/project).   Use relative addressing on all files/paths.

> Su -
>
> mv   ../share/pictures   ../share/docs/project
> mv   ../share/music   ../share/docs/project

10. Display the contents of the PATH environment variable.   How many paths are listed?
    Printenv

4

11. Login in as root and run the startup/login scripts.   Display the contents of the PATH environment variable. How is it different from the contents on #10?

su -
printenv
6

12.   If jan tries to execute the command **sudo /etc/init.d/apache2 start**, how is the path environment variable used?

It runs sudo from   /usr/bin (which sudo)   but it tells her she cannot run sudo

13. Change the group of all files under **/home/jan/videos** to **joe**.   (Hint: use the chgrp command. See help on this command to find how to use it.)

su -
chgrp   -R joe   /home/jan/videos/*

14. Change permissions on **/share** so that any user can read all the files in the directory.

su – joe
chmod   775   /share

15. Delete all the files and directories under **/root/** and all the files and directories under it – but don't delete the **/root** directory!

Su -
rm -rf ./*

16.   What is the group id and user id of jan?

1005 on the test as found in the passwd file

17. Assume you have the files /etc/rc2.d/S2apache2 and /etc/rc2.d/S20ssh.
Make apache2 (S2apache2) run after ssh (S20ssh) when starting up in run level 2.

su -
cd /etc/rc2.d
mv   S2apache2   S21apache2

or – much harder

su -
rm   S2apache2
ln -s   ../init.d/apache2   S21apache2

18.   Switch over to user root and run the login scripts.   After logging in as root, what is your pwd?

su -
pwd is /root

19.   Create another user by the name of "bob" and make his home directory "/share".

Su -
adduser --home   /share bob
cd /etc
nano passwd   (on bob's entry, change /home/bob to /share)

20. Create an empty file called "test.doc"   **/home/joe**.   Make the creation date on the file "09/23/2009".
su -
touch -t 200909230000 /home/joe/test.doc

21.   Make sure ssh will not startup in run level 3.

su -
cd /etc/rc3.d
rm   S16ssh

22. Give the command to find the path that the "chgrp" command is in.

which chgrp   (found in /bin/chgrp)

23. Find all the files in the **/share/docs/project/pictures** that begin with "pic1".

ls /share/docs/project/picture/pic1*

24. What is the purpose of the file **/etc/shadow** and how does it relate to **/etc/passwd**?

For every user in /etc/passwd there is an entry in /etc/shadow.
Shadow contains the encrypted password for each user.

25. Given from a ls –als command:
lrwx------ 4 joe   joe   4096 Feb 04 13:00 S42abc -> /etc/init.d/abc

Explain everything in the listing using terms from file, directory, user, group, permissions, size, creation date.

L - link or shortcut
rwx - user joe has read write execute permission
---   - goup joe has no access
---   everybody else has no access
4   four inodes
joe – user
joe – group
4096 is size of file
Feb 04 – date the file was modified
13:00 is time the file modified (1 P.M)
S42abc is the nane of the link/shortcut
/etc/init.d/abc is the actual file that the shortcut is pointing to