**CSI3660**

**Lab 3, PART 2**

You have learned how to pass command line arguments. You've also learned how for loops work and simple math. You even added and removed users from the system. Now it is time to do something useful that any IT sysadmin would love to see.

You're going to automate user account creation as opposed to doing it by hand. You'll also set their groups and access rights.

1. First thing you will need to do is setup **three** groups on your system: **sysadmin, normal, hr.**
2. Now, create **two** separate folders: /etc/admin, /etc/hr
3. And lastly, set the permissions as follows:
   1. For /etc/admin, the permissions should be ---|rwx|---
   2. For /etc/hr, the permissions should be ---|rw-|---
   3. Set the group owner for /etc/admin as **sysadmin** and /etc/hr as **hr**

Update /etc/skel to include the following:

/etc/skel:

* Documents
* Backup

Finally, create a file named USERS.csv that lists 15 users in the following format (CSV) – including the header (don't include the header in the file, it is not necessary – it should only list the users in that file!). Make sure that the usernames are unique! There should be 5 users in each group (hr, sysadmin, normal):

**Username, First Name, Last Name, Group**

erikfredericks, Erik, Fredericks, sysadmin

user1, User, Name, hr

…

Now, create a Bash script (named <your last name>\_Lab3\_UserAdd.sh) that

1. Reads in the CSV file
2. Adds each user to the system
3. Add the user to the group specified to the Group field

For (1), you will need some extra code to get up and running, as we haven't talked about CSVs, or reading files, etc. You should know how to add users and add users to groups, so that will need to be included as well.

# Read and parse a CSV file in Bash

INFILE=USERS.csv

OLDIFS=$IFS

IFS=,

[ ! -f $INFILE ] && { echo "$INFILE file not found"; exit 99; }

while read username fname lname grp

do

echo "Username : $username"

echo "Name : $fname $lname"

echo "Group : $grp"

echo "=========="

done < $INFILE

IFS=$OLDIFS

For each user (i.e., in that while loop shown above):

1. Add the user to the system as we have before
2. Add the user to the group specified in the CSV file (don't overwrite their default group, add them to a new group)
3. Set their password to temp12345

When you run this script, make sure you redirect the output to a file named <lastname>\_Lab3\_UserAdd\_Output.txt.

Leave these users on your system for now.

**Lab Report**

1. Show me a long listing (ls -la) of one of the user's home directories that you just created. At minimum, those directories from /etc/skel should appear.
2. Show me a long listing (ls -la) of the /etc directory
3. Show me the output of tail /etc/passwd
4. Show me the output of tail /etc/group

Submit your script and output in the following format:

Filename: <lastname>.tar.gz

Files within the compressed archive:

<lastname>\_Script1.sh

<lastname>\_Script1\_Output.txt

<lastname>\_Script2.sh

<lastname>\_Script2\_Output.txt

<lastname>\_Script3\_a.sh

<lastname>\_Script3\_a\_Output.txt

<lastname>\_Script3\_b.sh

<lastname>\_Script3\_b\_Output.txt

<lastname>\_Lab3\_UserAdd.sh

<lastname>\_Lab3\_UserAdd\_Output.txt

<lastname>\_Lab3\_Report.docx (or whatever format your report file is in)

where the .sh files are your script files, and the .txt files are the output as printed to the command line.