Quiz-week-5
Due: Thursday OCT-1st 11:59 PM

1. Directory ‘diry’ has 3 files inside listed here: **$HOME/dirx/diry**
   -filex
   -filey
   -filez

a. Write a command to make a directory called ‘new-dir’ in your $HOME directory.
   $mkdir $HOME/new-dir

b. Write a command to copy all files from ‘diry’ into the new directory called ’new-dir’ you just created in your home directory. Assume that you are in your home directory.
   $cp -R $HOME/dirx/diry new-dir

c. Write a command to rename the ‘diry’ to dir-yy
   $mv $HOME/dirx/diry $HOME/dirx/diryy

d. Give the command to create a hard link from a file called ‘filex’.
   i. **$cal > filex**
   ii. **$ln filex hl_filex**

e. Give the command to create a symbolic link from filex to a new file called ‘sym-filex’
   i. **$ln -s filex sym-filex**

f. Change the permission of dir-yy so that the owner of the directory has rwx, r-x for the group, and --- for others.
   i. **$chmod 750 $HOME/dirx/diryy**

g. Set the UID bit on the below script file with the following content.
   i. **$ vi sayit**

   #!/bin/bash
   echo `date`
   echo “how are you”
   ----
   ii. Change the permissions of the script file ‘sayit’ to 755.
   $chmod 755 sayit
   iii. SEt the UID bit on the file script file called ‘sayit’.
   $chmod u+s sayit

h. Show how you set your PATH so that your path will have the following directories.
   i. **/usr/bin:/usr/sbin:$HOME/bin**
      $PATH=/usr/bin:/usr/sbin:$HOME/bin

i. Set the PATH in your **$HOME/.bashrc** file so that it will always be active when you first log onto the system.
   i. **$vim $HOME/.bashrc**
   ii. **export PATH="$HOME/bin:$PATH"**
   iii. **$source $HOME/.bashrc**

j. Make a directory in your home directory called 'test-data'
   i. **$mkdir $HOME/test-data**

   ii. Copy all files from the /etc directory that begins with the letter 'p' followed by the letter 'r' followed any other characters to your $HOME/test-data
      $cp /etc/pr* $HOME/test-data

   iii. What is the size of the data in your test-data directory. Use the 'du' command with the proper options all the sizes of the files and also the total space used by the directory.
      $du -ch $HOME/test-data

2. Given a directory called 'diry' and a file called 'filex', please answer the following questions.

a. Write a test command to test if 'diry' is a directory
   i. **$test -d diry**
b. Write a test command to test if 'filex' is a file.
   i. **$test -f filex**
c. Write a test command to test if filex is 'executible' . If so, include a logical AND (&&) clause that echo "Yes - filex is a executable"
   i. **$test -x filex && echo "Yes - filex is a executable"**
d. Write a test command to test if filex has a size greater than 'zero'.
      $test -n filex

e. A file system __inode__ is allocated every time you create a file.