

Linux Assignment Part 2

Disuqi Hijazi AGE520 @00609702

Task 1

q1.sh

```
#!/bin/bash

if [ $# -eq 2 ];then
    if [[ -f $1 && -f $2 ]]; then
        echo The total number of lines is $(( $(wc -l < $1 ) + $( wc -l < $2 ) )).
    else
        if [[ -d $1 ]]; then
            echo ERROR $1 is a directory
        elif [[ -d $2 ]]; then
            echo ERROR $2 is a directory
        else
            echo one of the argumnets is not a file
        fi
    fi
else
    echo You need exactly two arguments
fi
```

q2.sh

```
#!/bin/bash

counter0=0
counter1=0

while [ $# -gt 0 ]; do
    if [[ $1 =~ ^[0-9]+$ ]]; then
        if [ $1 -eq 0 ]; then
            let counter0+=1
        elif [ $1 -eq 1 ]; then
            let counter1+=1
        fi
    fi
done
```

```

        fi
        shift
done
if [ $counter0 -gt $counter1 ]; then
    echo The Winner is 0 with $counter0 votes
elif [ $counter1 -gt $counter0 ]; then
    echo The Winner is 1 with $counter1 votes
else
    echo Vote is a tie. Each obtained $counter0 votes
fi

```

q3.sh

```

#!/bin/bash
numOfFiles=0
currentDir=$(pwd)
if [ $# -gt 1 ]; then
    echo You have given me too many arguments, you should only give one argumnet.
else
    if [ $# -eq 0 ]; then
        echo -n Enter the file ending:\
        read fileEnd
    else
        fileEnd=$1
    fi

    for file in $currentDir/*$fileEnd; do
        filename=$(basename $file)
        if [[ -f $file ]]; then
            echo match $filename
            let numOfFiles+=1
        fi
    done

```

```

echo Current directory $currentDir has $numOfFiles $fileEnd files

numOfFiles=0

for directory in $currentDir/*; do
    if [ -d $directory ]; then
        for file in $directory/*$fileEnd; do
            filename=${basename $file}
            if [[ -f $file ]]; then
                echo match $filename
                let numOfFiles+=1
            fi
        done
        dirName=${basename $directory}
        echo $dirName has $numOfFiles $fileEnd files
        numOfFiles=0
    fi
done
fi

```

Screenshot

```

disuqi@disuqi-PC:~/Assignment2$ seq 1 5 > 1.txt
disuqi@disuqi-PC:~/Assignment2$ seq 6 10 > 2.txt
disuqi@disuqi-PC:~/Assignment2$ bash q1.sh 1.txt 2.txt
The total number of lines is 10.
disuqi@disuqi-PC:~/Assignment2$ bash q2.sh 01101
Vote is a tie. Each obtained 0 votes
disuqi@disuqi-PC:~/Assignment2$ bash q2.sh 0 1 1 0 1
The Winner is 1 with 3 votes
disuqi@disuqi-PC:~/Assignment2$ bash q2.sh 0 0 1 1 0 1 1 0
Vote is a tie. Each obtained 4 votes
disuqi@disuqi-PC:~/Assignment2$ bash q2.sh 0 0 1 hello 1 a 0 1 1 x 0
Vote is a tie. Each obtained 4 votes
disuqi@disuqi-PC:~/Assignment2$ ls
1.txt 2.txt dirOne dirTwo q1.sh q2.sh q3.sh tester.txt
disuqi@disuqi-PC:~/Assignment2$ ls dirOne
2.txt 3.txt 4.txt 5.t
disuqi@disuqi-PC:~/Assignment2$ ls dirTwo
6.txt 7.xyz
disuqi@disuqi-PC:~/Assignment2$ bash q3.sh
Enter the file ending: .txt
match 1.txt
match 2.txt
match tester.txt
Current directory /home/disuqi/Assignment2 has 3 .txt files
match 2.txt
match 3.txt
match 4.txt
dirOne has 3 .txt files
match 6.txt
dirTwo has 1 .txt files
disuqi@disuqi-PC:~/Assignment2$ bash q3.sh .xyz
Current directory /home/disuqi/Assignment2 has 0 .xyz files
dirOne has 0 .xyz files
match 7.xyz
dirTwo has 1 .xyz files
disuqi@disuqi-PC:~/Assignment2$ bash q3.sh .a
Current directory /home/disuqi/Assignment2 has 0 .a files
dirOne has 0 .a files
dirTwo has 0 .a files
disuqi@disuqi-PC:~/Assignment2$ █

```

Task 2

Commands

Login is root
 useradd -m disuqi
 passwd disuqi
 groupadd sudo
 gpasswd -a disuqi sudo
 visudo (uncomment line 81 / %sudo<>ALL=(ALL) ALL)

```
vi /home/disuqi/.bashrc (add PATH=$PATH:/sbin:/usr/sbin)
logout
login as disuqi
sudo -l
sudo vi /etc/skel/.bashrc (add alias; alias help="man")
sudo useradd -m test (to test the aliases)
sudo passwd test
logout
login as test
help
dir
touch 1.txt
rename 1.txt 2.txt
dir
logout
login as disuqi
sudo userdel -r test
sudo vi /etc/profile (edit umask to 002)
sudo useradd -m john
sudo useradd -m ed
sudo useradd -m myron
sudo useradd -m mel
sudo passwd john
sudo passwd ed
sudo passwd myron
sudo passwd mel
sudo chmod 700 /home/*
sudo groupadd team1
sudo groupadd team2
sudo gpasswd -a myron team1
sudo gpasswd -a mel team1
sudo gpasswd -a john team2
sudo gpasswd -a ed team2
sudo mkdir /home/team1
sudo mkdir /home/team2
sudo chown disuqi.team1 /home/team1/
sudo chown disuqi.team2 /home/team2/
sudo chmod 2575 /home/team1/
sudo chmod 2070 /home/team2/
ls -l /home/
logout
test everything works
```

Screenshots (not in order)

```

# For non-root users, add the current directory to the search path:
if [ ! "`id -u`" = "0" ]; then
    PATH="$PATH:."
"/etc/profile" 84L, 2283C written
disuqi@slax:~$ sudo useradd -m john
disuqi@slax:~$ sudo useradd -m ed
disuqi@slax:~$ sudo useradd -m myron
disuqi@slax:~$ sudo useradd -m mel
disuqi@slax:~$ sudo passwd john
Changing password for john
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd ed
Changing password for ed
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd myron
Changing password for myron
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd mel
Changing password for mel
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ _

if [ "$SHELL" = "/bin/pdksh" ]; then
    PS1='! $ '
elif [ "$SHELL" = "/bin/ksh" ]; then
    PS1='! ${PWD/#$HOME/~}%$ '
elif [ "$SHELL" = "/bin/zsh" ]; then
    PS1='%n@%m:%~%# '
elif [ "$SHELL" = "/bin/ash" ]; then
    PS1='$ '
else
    PS1='\u@\h:\w$ '
fi
PS2='! '
export PATH DISPLAY LESS TERM PS1 PS2

# Default umask. A umask of 022 prevents new files from being created group
# and world writable.
umask 002

# Notify user of incoming mail. This can be overridden in the user's
# local startup file (~/.bash.login or whatever, depending on the shell)
if [ -x /usr/bin/biff ]; then
    biff y 2> /dev/null
fi

# Append any additional sh scripts found in /etc/profile.d/:
for profile_script in /etc/profile.d/*.sh ; do
    if [ -x $profile_script ]; then
        . $profile_script
    fi
done
unset profile_script

# For non-root users, add the current directory to the search path:
if [ ! "`id -u`" = "0" ]; then
    PATH="$PATH:."
"/etc/profile" 84L, 2283C written
disuqi@slax:~$

```



```

disuqi@slax:~$ sudo passwd john
Changing password for john
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd ed
Changing password for ed
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd myron
Changing password for myron
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo passwd mel
Changing password for mel
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
disuqi@slax:~$ sudo chmod 700 /home/*
disuqi@slax:~$ ls -l /home
total 0
drwx----- 11 disuqi disuqi 340 May 19 11:54 disuqi/
drwx----- 2 ed      ed      140 May 19 12:02 ed/
drwx----- 2 john    john    140 May 19 12:02 john/
drwx----- 2 mel      mel      140 May 19 12:02 mel/
drwx----- 2 myron    myron    140 May 19 12:02 myron/
disuqi@slax:~$ _

```

```

*****
* University of Salford                                     *
* School of Computing, Science and Engineering             *
* Computer Science and Software Engineering                *
*                                                         *
* Customised "Live Distro" for the following modules:      *
* - CSI-Linux (first year)                                *
* - Networking (second year)                              *
*                                                         *
* The Live CD is based on SLAX 7.0.5 (http://www.slax.org) *
* SLAX is based on the Slackware distribution version 14.0 *
* and on the Linux kernel version 3.6.11                  *
*                                                         *
* Customisation version 1.3a (build date 2020-02-20)      *
* - customised by Andrew Young                            *
*                                                         *
* Please refer to the "Live CD acceptable use policy", which you *
* will find in "/etc/aup" on this CD                       *
*****

```

```

slax login: test
Password:
Linux 3.6.11.
test@slax:~$ help
What manual page do you want?
test@slax:~$ dir
Desktop/ Documents/ Downloads/ Music/ Pictures/ Public/ Templates/ Videos/
test@slax:~$ touch 1.txt
test@slax:~$ rename 1.txt 2.txt
test@slax:~$ dit
-bash: dit: command not found
test@slax:~$ dir
2.txt Desktop/ Documents/ Downloads/ Music/ Pictures/ Public/ Templates/ Videos/
test@slax:~$ _

```



```
###
### Uncomment to enable logging of a command's output, except for
### sudoreplay and reboot. Use sudoreplay to play back logged sessions.
# Defaults log_output
# Defaults!usr/bin/sudoreplay !log_output
# Defaults!usr/local/bin/sudoreplay !log_output
# Defaults!sbin/reboot !log_output

###
### Runas alias specification
###

###
### User privilege specification
###
root ALL=(ALL) ALL

### Uncomment to allow members of group wheel to execute any command
# %wheel ALL=(ALL) ALL

### Same thing without a password
# %wheel ALL=(ALL) NOPASSWD: ALL

### Uncomment to allow members of group sudo to execute any command
# %sudo<>ALL=(ALL) ALL

### Uncomment to allow any user to run sudo if they know the password
### of the user they are running the command as (root by default).
# Defaults targetpw # Ask for the password of the target user
# ALL ALL=(ALL) ALL # WARNING: only use this together with 'Defaults targetpw'

### Read drop-in files from /etc/sudoers.d
### (the '#' here does not indicate a comment)
#includedir /etc/sudoers.d
```

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit

```
*
* Customised "Live Distro" for the following modules:
* - CSI-Linux (first year)
* - Networking (second year)
*
* The Live CD is based on SLAX 7.0.5 (http://www.slax.org)
* SLAX is based on the Slackware distribution version 14.0
* and on the Linux kernel version 3.6.11
*
* Customisation version 1.3a (build date 2020-02-20)
* - customised by Andrew Young
*
* Please refer to the "Live CD acceptable use policy", which you
* will find in "/etc/aup" on this CD
*****

slax login: root
Password:
Linux 3.6.11.
root@slax:~# useradd -m disuqi
root@slax:~# passwd disuqi
Changing password for disuqi
Enter the new password (minimum of 5 characters)
Please use a combination of upper and lower case letters and numbers.
New password:
Re-enter new password:
passwd: password changed.
root@slax:~# groupadd sudo
root@slax:~# gpasswd -a disuqi sudo
Adding user disuqi to group sudo
root@slax:~# visudo

root@slax:~#
```



```
# Put your user specific aliases and functions here
alias help="man"
alias rename="mv"
alias dir="ls"
```

```
# Source global definitions
if [ -f /etc/bashrc ]; then
    . /etc/bashrc
fi
```

```
"/etc/skel/.bashrc" 13L, 190C written
disuqi@slax:~$
```

Options:

-a, --add USER	add USER to GROUP
-d, --delete USER	remove USER from GROUP
-h, --help	display this help message and exit
-r, --remove-password	remove the GROUP's password
-R, --restrict	restrict access to GROUP to its members
-M, --members USER,...	set the list of members of GROUP
-A, --administrators ADMIN,...	set the list of administrators for GROUP

Except for the -A and -M options, the options cannot be combined.

```
disuqi@slax:~$ sudo gpasswd -a myron team1
Adding user myron to group team1
disuqi@slax:~$ sudo gpasswd -a mel team1
Adding user mel to group team1
disuqi@slax:~$ sudo gpasswd -a john team2
Adding user john to group team2
disuqi@slax:~$ sudo gpasswd -a ed team2
Adding user ed to group team2
disuqi@slax:~$ sudo mkdir /home/team1
disuqi@slax:~$ sudo mkdir /home/team2
disuqi@slax:~$ sudo chown disuqi.team1 /home/team1/
disuqi@slax:~$ sudo chown disuqi.team2 /home/team2/
disuqi@slax:~$ sudo chmod 2575 /home/team1/
disuqi@slax:~$ sudo chmod 2070 /home/team2/
disuqi@slax:~$ ls -l /home
total 0
drwx----- 11 disuqi disuqi 340 May 19 11:54 disuqi/
drwx-----  2 ed      ed    140 May 19 12:02 ed/
drwx-----  2 john    john   140 May 19 12:02 john/
drwx-----  2 mel     mel    140 May 19 12:02 mel/
drwx-----  2 myron   myron   140 May 19 12:02 myron/
dr-xrwsr-x  2 disuqi team1   40 May 19 12:06 team1/
d---rws---  2 disuqi team2   40 May 19 12:06 team2/
disuqi@slax:~$
```


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 47. *What are the main opponents or adversaries?*
 48. *What are the main interests or concerns?*
 49. *What are the main values or beliefs?*
 50. *What are the main principles or values?*
 51. *What are the main ethics or morals?*
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 53. *What are the main customs or traditions?*
 54. *What are the main beliefs or ideologies?*
 55. *What are the main philosophies or theories?*
 56. *What are the main sciences or disciplines?*
 57. *What are the main arts or crafts?*
 58. *What are the main sports or games?*
 59. *What are the main hobbies or interests?*
 60. *What are the main passions or pursuits?*
 61. *What are the main dreams or aspirations?*
 62. *What are the main hopes or wishes?*
 63. *What are the main fears or anxieties?*
 64. *What are the main joys or pleasures?*
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 68. *What are the main likes or dislikes?*
 69. *What are the main preferences or choices?*
 70. *What are the main decisions or choices?*
 71. *What are the main actions or deeds?*
 72. *What are the main behaviors or actions?*
 73. *What are the main attitudes or behaviors?*
 74. *What are the main emotions or feelings?*
 75. *What are the main thoughts or ideas?*
 76. *What are the main beliefs or opinions?*
 77. *What are the main views or perspectives?*
 78. *What are the main positions or stances?*
 79. *What are the main arguments or points?*
 80. *What are the main reasons or causes?*
 81. *What are the main effects or consequences?*
 82. *What are the main impacts or influences?*
 83. *What are the main contributions or inputs?*
 84. *What are the main outputs or products?*
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 190. *What are the main*


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All