

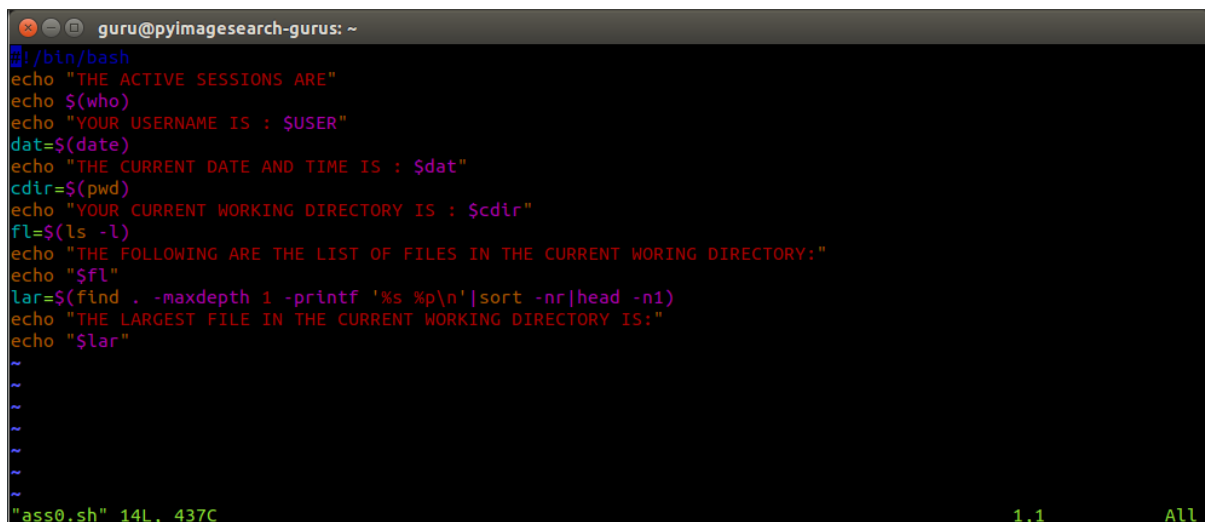
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**LETS UPGRADE**  
**LINUX ADMINISTRATION ESSENTIALS**  
**ASSIGNMENT DAY 8**  
**09 DECEMBER 2020**

**ASSIGNMENT 0**

**1. Create a simple shell script to tell the user about their session – they need to know:**

- What their username is
- What the current date is
- What the time is
- What their current working directory is
- How many files they have in that directory
- What is the biggest file in their current directory.



```
guru@pyimagesearch-gurus: ~  
$ ./bin/bash  
echo "THE ACTIVE SESSIONS ARE"  
echo $(who)  
echo "YOUR USERNAME IS : $USER"  
dat=$(date)  
echo "THE CURRENT DATE AND TIME IS : $dat"  
cdir=$(pwd)  
echo "YOUR CURRENT WORKING DIRECTORY IS : $cdir"  
fl=$(ls -l)  
echo "THE FOLLOWING ARE THE LIST OF FILES IN THE CURRENT WORKING DIRECTORY:"  
echo "$fl"  
lar=$(find . -maxdepth 1 -printf '%s %p\n'|sort -nr|head -n1)  
echo "THE LARGEST FILE IN THE CURRENT WORKING DIRECTORY IS:"  
echo "$lar"  
~  
~  
~  
~  
~  
~  
"ass0.sh" 14L, 437C 1,1 All
```

```
(gurus) guru@pyimagesearch-gurus:~$ ./ass0.sh
THE ACTIVE SESSIONS ARE
guru :0 2020-12-09 12:25 (:0) guru pts/0 2020-12-10 10:28 (:0)
YOUR USERNAME IS : guru
THE CURRENT DATE AND TIME IS : Thu Dec 10 14:40:36 EST 2020
YOUR CURRENT WORKING DIRECTORY IS : /home/guru
THE FOLLOWING ARE THE LIST OF FILES IN THE CURRENT WORKING DIRECTORY:
total 260
drwxrwxr-x 2 guru guru      4096 Dec 10 2018 apple1
drwxrwxr-x 2 guru guru      4096 Dec 10 2018 apple2
-rwxrwxr-x 1 guru guru       265 Dec 10 14:34 ass02.sh
-rwxrwxr-x 1 guru guru      437 Dec 10 14:39 ass0.sh
-rw-rw-r-- 1 guru guru         0 Dec 19 2018 barcode and qr code scanner~
drwxrwxr-x 2 guru guru      4096 Mar 21 2020 _build
drwxrwxr-x 16 guru guru     4096 Mar 9 2016 caffe
-rwxrwxr-x 1 guru guru    44866 Mar 20 2020 calc
-rw-rw-r-- 1 guru guru      212 Mar 20 2020 calc.cmi
-rw-rw-r-- 1 guru guru      592 Mar 20 2020 calc.cmo
-rw-rw-r-- 1 guru guru      328 Mar 20 2020 calc.ml
-rw-rw-r-- 1 guru guru         0 Aug 22 2019 defaults
drwxr-xr-x 10 guru guru     4096 Jul 7 12:19 Desktop
-rw-rw-r-- 1 guru guru         0 Dec 10 2018 dhanya.txt
drwxrwxr-x 2 guru guru      4096 Dec 10 14:21 dir_1
drwxrwxr-x 2 guru guru      4096 Dec 10 14:12 dir_2
drwxr-xr-x 5 guru guru      4096 Dec 4 11:44 Documents
drwxr-xr-x 4 guru guru      4096 Oct 27 12:05 Downloads
-rw-rw-r-- 1 guru guru     8980 Mar 9 2016 examples.desktop
-rw-rw-r-- 1 guru guru    25640 Oct 17 13:40 Firefox_wallpaper.png
-rw-rw-r-- 1 guru guru       484 Mar 20 2020 lexer.cmi
-rw-rw-r-- 1 guru guru      1907 Mar 20 2020 lexer.cmo
-rw-rw-r-- 1 guru guru     6758 Mar 20 2020 lexer.ml
```

```
-rw-rw-r-- 1 guru guru       583 Mar 20 2020 lexer.mll
-rw-rw-r-- 1 guru guru       583 Mar 20 2020 lexer.mll-
drwxr-xr-x 2 guru guru      4096 Mar 9 2016 Music
-rw-rw-r-- 1 guru guru       490 Mar 20 2020 parser.cmi
-rw-rw-r-- 1 guru guru     2093 Mar 20 2020 parser.cmo
-rw-rw-r-- 1 guru guru     4709 Mar 20 2020 parser.ml
-rw-rw-r-- 1 guru guru       161 Mar 20 2020 parser.mli
-rw-rw-r-- 1 guru guru       804 Mar 20 2020 parser.mly
drwxr-xr-x 2 guru guru      4096 Mar 15 2019 Pictures
drwxr-xr-x 2 guru guru      4096 Mar 9 2016 Public
-rw-rw-r-- 1 guru guru    39002 Aug 30 2019 quiz.odt
-rw-rw-r-- 1 guru guru     2703 Jul 7 05:59 sample.txt
drwxrwxr-x 5 guru guru      4096 Mar 9 2016 services
drwxr-xr-x 2 guru guru      4096 Mar 9 2016 Templates
-rw-rw-r-- 1 root root 1000000000 Dec 9 13:51 text1.txt
drwxr-xr-x 2 guru guru      4096 Mar 9 2016 Videos
THE LARGEST FILE IN THE CURRENT WORKING DIRECTORY IS:
1000000000 ./text1.txt
```

## ASSIGNMENT 1

Create a directory with a few test files in it (the files can be empty). Now write a script that for every file in that directory you rename it to have an extension of today's date in YYYYMMDD format.

```
(gurus) guru@pyimagesearch-gurus:~$ mkdir dir_1
(gurus) guru@pyimagesearch-gurus:~$ cd dir_1
(gurus) guru@pyimagesearch-gurus:~/dir_1$ touch text1.txt
(gurus) guru@pyimagesearch-gurus:~/dir_1$ touch text2.txt
(gurus) guru@pyimagesearch-gurus:~/dir_1$ touch text3.txt
(gurus) guru@pyimagesearch-gurus:~/dir_1$ touch text4.txt
(gurus) guru@pyimagesearch-gurus:~/dir_1$ ls
text1.txt text2.txt text3.txt text4.txt
```



```
(gurus) guru@pyimagesearch-gurus:~$ vi ass02.sh
(gurus) guru@pyimagesearch-gurus:~$ ./ass02.sh
-----
REVERSING A NUMBER
-----
ENTER A NUMBER
83452
THE REVERSED NUMBER IS..
25438
```

### ASSIGNMENT 3

Write a script to validate how secure someone's password is. Things you would care about:

- Length should be 8 or more characters
- The password should contain numbers and letters
- There should be both uppercase and lowercase letters

```
guru@pyimagesearch-gurus: ~
#!/bin/bash
echo "-----"
echo "PASSWORD VALIDATION"
echo "-----"
echo "ENTER YOUR PASSWORD"
read password
len=`echo ${#password}`
if [[ $len -lt 8 ]];
then
    echo "Password must be atleast 8 characters!!!"
    exit 1
fi
echo $password | grep "[a-z]" | grep "[A-Z]" | grep "[0-9]"
if [[ $? -ne 0 ]];
then
    echo "Password must contain atleast 1 uppercase,lowercase, digit characters"
    exit 2
fi
echo "YOUR PASSWORD IS STRONG!!!"
~
~
~
~
1,1 All
```

```
(gurus) guru@pyimagesearch-gurus:~$ vi ass3.sh
(gurus) guru@pyimagesearch-gurus:~$ ./ass3.sh
-----
PASSWORD VALIDATION
-----
ENTER YOUR PASSWORD
lop
Password must be atleast 8 characters!!!
(gurus) guru@pyimagesearch-gurus:~$ ./ass3.sh
-----
PASSWORD VALIDATION
-----
ENTER YOUR PASSWORD
fuxgudwjx
Password must contain atleast 1 uppercase, lowercase, digit characters
(gurus) guru@pyimagesearch-gurus:~$ ./ass3.sh
-----
PASSWORD VALIDATION
-----
ENTER YOUR PASSWORD
Top234inot
Top234inot
YOUR PASSWORD IS STRONG!!!
```