

Assignment - 4 (Day 8)

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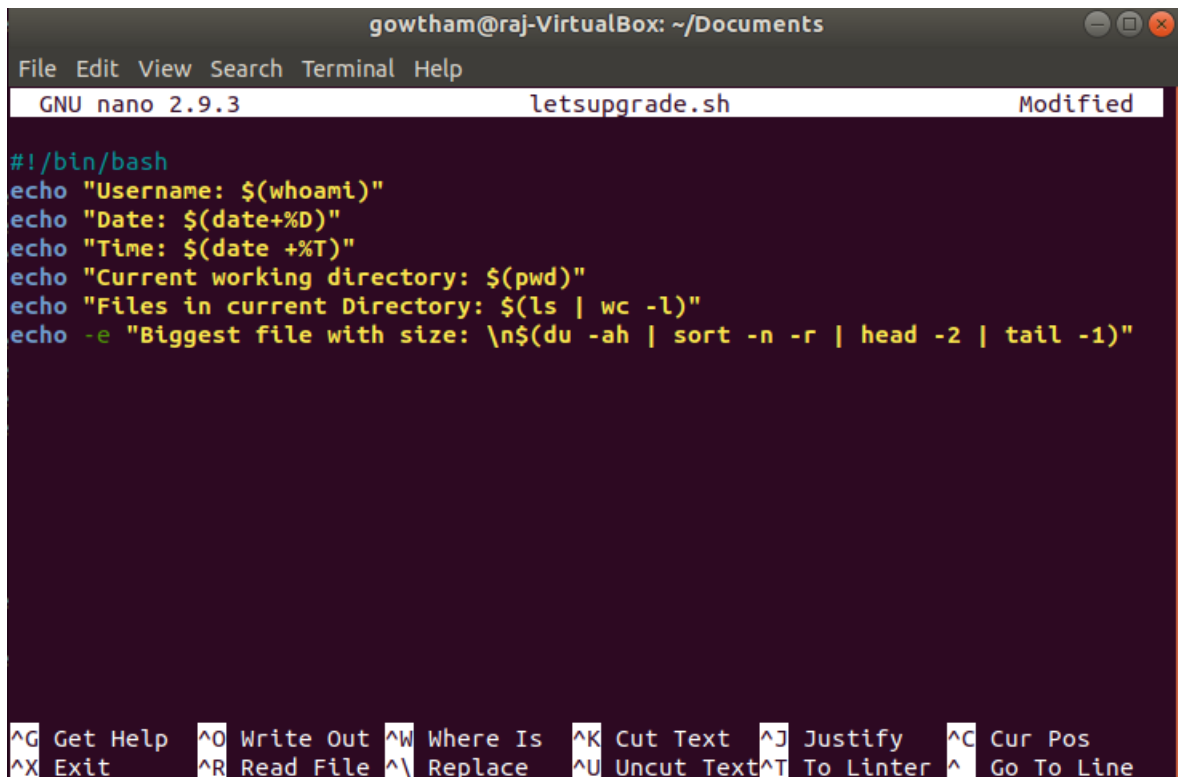
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Question

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



```
gowtham@raj-VirtualBox: ~/Documents
File Edit View Search Terminal Help
GNU nano 2.9.3 letsupgrade.sh Modified
#!/bin/bash
echo "Username: $(whoami)"
echo "Date: $(date+%D)"
echo "Time: $(date +%T)"
echo "Current working directory: $(pwd)"
echo "Files in current Directory: $(ls | wc -l)"
echo -e "Biggest file with size: \n$(du -ah | sort -n -r | head -2 | tail -1)"

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line
```

```
gowtham@raj-VirtualBox: ~/Documents
File Edit View Search Terminal Help
gowtham@raj-VirtualBox:~/Documents$ ls -lah
total 77M
drwxr-xr-x  2 gowtham gowtham 4.0K Dec 11 16:53 .
drwxr-xr-x 15 gowtham gowtham 4.0K Dec 11 14:54 ..
-rw-r--r--  1 gowtham gowtham 6.0M Dec 11 16:42 aka.txt
-rw-r--r--  1 gowtham gowtham 10M Dec 11 16:42 lets.txt
-rwxr-xr-x  1 gowtham gowtham 259 Dec 11 16:53 letsupgrade.sh
-rw-r--r--  1 gowtham gowtham 60M Dec 11 16:42 letsupgrade.txt
gowtham@raj-VirtualBox:~/Documents$ ./letsupgrade.sh
Username: gowtham
Date: 12/11/20
Time: 16:53:56
Current working directory: /home/gowtham/Documents
Files in current Directory: 4
Biggest file with size:
60M      ./letsupgrade.txt
gowtham@raj-VirtualBox:~/Documents$
```

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.

```
gowtham@raj-VirtualBox: ~/temp
File Edit View Search Terminal Help
GNU nano 2.9.3 letsupgrade.sh

#!/bin/bash

FILES=$(ls *.txt)
EXTENSION=$(date +"%Y%m%d")

for f in ${FILES}
do
    FILENAME=${f}
    FILENAME+="."
    FILENAME+=${EXTENSION}
    mv ${f} ${FILENAME}
done

[ Read 12 lines ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line
```

```
gowtham@raj-VirtualBox: ~/temp
File Edit View Search Terminal Help
gowtham@raj-VirtualBox:~/temp$ touch file{1..5}.txt
gowtham@raj-VirtualBox:~/temp$ ls -lah
total 12K
drwxr-xr-x  2 gowtham gowtham 4.0K Dec 12 19:27 .
drwxr-xr-x 16 gowtham gowtham 4.0K Dec 12 19:10 ..
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file1.txt
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file2.txt
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file3.txt
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file4.txt
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file5.txt
-rwxr-xr-x  1 gowtham gowtham 163 Dec 12 19:22 letsupgrade.sh
gowtham@raj-VirtualBox:~/temp$ ./letsupgrade.sh
gowtham@raj-VirtualBox:~/temp$ ls -lah
total 12K
drwxr-xr-x  2 gowtham gowtham 4.0K Dec 12 19:28 .
drwxr-xr-x 16 gowtham gowtham 4.0K Dec 12 19:10 ..
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file1.txt.20201212
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file2.txt.20201212
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file3.txt.20201212
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file4.txt.20201212
-rw-r--r--  1 gowtham gowtham   0 Dec 12 19:27 file5.txt.20201212
-rwxr-xr-x  1 gowtham gowtham 163 Dec 12 19:22 letsupgrade.sh
gowtham@raj-VirtualBox:~/temp$
```

Assignment 2

Write a script that takes a number as an input and reverses it out to the user.
For example, if the original number is 74985, the output should be 58947.

```
gowtham@raj-VirtualBox: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 letsupgrade.sh

#!/bin/bash

NUM=$1
REV=$(echo $NUM | rev)
echo "$REV"

[ Read 5 lines ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line
```

```
gowtham@raj-VirtualBox: ~  
File Edit View Search Terminal Help  
gowtham@raj-VirtualBox:~$ nano letsupgrade.sh  
gowtham@raj-VirtualBox:~$ chmod +x letsupgrade.sh  
gowtham@raj-VirtualBox:~$ ./letsupgrade 12345  
bash: ./letsupgrade: No such file or directory  
gowtham@raj-VirtualBox:~$ ./letsupgrade.sh 12345  
54321  
gowtham@raj-VirtualBox:~$ ./letsupgrade.sh 15784  
48751  
gowtham@raj-VirtualBox:~$ ./letsupgrade.sh 24868  
86842  
gowtham@raj-VirtualBox:~$ █
```

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

```
gowtham@raj-VirtualBox: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 gowtham.sh

#!/bin/bash

pass=

chk_pass(){
    pass=$1
    printf '%s' "$pass" | grep -q '[A-Z]' || return 1
    printf '%s' "$pass" | grep -q '[a-z]' || return 1
    printf '%s' "$pass" | grep -q '[0-9]' || return 1
    return 0
}

printf '%s\n' 'Enter password: '
read -rs
if chk_pass "$REPLY"; then
    echo $pass
    printf '%s\n' 'password valid'
else
    echo $pass
    printf '%s\n' 'Invalid password'
fi

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line
```

```
gowtham@raj-VirtualBox: ~
File Edit View Search Terminal Help
gowtham@raj-VirtualBox:~$ chmod +x gowtham.sh
gowtham@raj-VirtualBox:~$ ./gowtham.sh
Enter password:
hello123
Invalid password
gowtham@raj-VirtualBox:~$ ./gowtham.sh
Enter password:
Hello123
password valid
gowtham@raj-VirtualBox:~$
```