

Studio 1

Bash Commands

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Question 1:

Chmx.bash:

```
#!/bin/bash
#This code makes files executable
#The user has to type in the name of at least one file as an argument
#This loops through all arguments and makes all files executable
for file in "$@"
do
    chmod 777 $file
    #makes executable to all users
    if [ $? -eq 0 ]
    #if previous command was successful
    then
        echo "The file $file is now executable"
    else
        echo "error the rights for file $file could not be changed to executable"
    fi
done
```

```
drwx----- 34 u1857977 root      4096 Dec 14 22:20 ..
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file1
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file2
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file3
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file4
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file5
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file6
-rwxr-xr-x  1 u1857977 stud1819   15 Oct  2 10:06 file7
-rwxr-xr-x  1 u1857977 stud1819   973 Oct  2 10:06 phonedir
-rwxr-xr-x  1 u1857977 stud1819   973 Oct  2 10:06 stafflist
-rwxr-xr-x  1 u1857977 stud1819   973 Oct  2 10:06 telnos
drwxr-xr-x  2 u1857977 stud1819  4096 Oct  2 10:06 testing
u1857977@ouranos:~/testfiles$ chmx.bash file1 file2 file3 file4
The file file1 is now executable
The file file2 is now executable
The file file3 is now executable
The file file4 is now executable
u1857977@ouranos:~/testfiles$
```

```
1857977@ouranos:~/testfiles$ chmx.bash
1857977@ouranos:~/testfiles$
```

```

u1857977@ouranos:~/testfiles$ chmx.bash
u1857977@ouranos:~/testfiles$ chmx.bash hh
chmod: cannot access 'hh': No such file or directory
/home/user/u1857977/bin/chmx.bash: line 14: echoerror the rights for file hh could not be changed to executable: command not found
u1857977@ouranos:~/testfiles$ cd
u1857977@ouranos:~$ chmx.bash documents
chmod: cannot access 'documents': No such file or directory
/home/user/u1857977/bin/chmx.bash: line 14: echoerror the rights for file documents could not be changed to executable: command not found
u1857977@ouranos:~$ █

```

Lshead:

```

#!/bin/bash
#prints first set or last set of lines, number of lines is variable
dir=$1
#directory is first argument entered
cd $HOME/$dir
#for file in current directory
for file in *;
do

    echo $file
    echo "type 'head' for the first set of lines or 'tail' for the last set of lines"

    read choice

    if [ $choice == "head" ]
    then
        echo "Type the number of lines you want to read from the beginning of " $file
        read fnumber
        head -$fnumber $file
        #prints first number of lines
    elif [ $choice = "tail" ]
    then
        echo "How many lines do you want to read from the END of "$file
        read end_number
        tail -$end_number $file
        #prints last number of lines
    else
        echo "Error, please type either 'head' or 'tail'"
    fi

done
# command will keep looping for all files in current directory

```

```

u1857977@ouranos:~$ lshead.bash testfiles
file1
type 'head' for the first set of lines or 'tail' for the last set of lines
head
Type the number of lines you want to read from the beginning of file1
1
This is file 1
file2
type 'head' for the first set of lines or 'tail' for the last set of lines
tail
How many lines do you want to read from the END of file2
1
This is file 2

```

```

Type the number of lines you want to read from the beginning of file7
1
This is file 7
phonedir
type 'head' for the first set of lines or 'tail' for the last set of lines
head
Type the number of lines you want to read from the beginning of phonedir
10
'ALLEN',"Gary","Dr",2152,"g.allen@hud.ac.uk"
'BAKER',"Paul C","Dr",2302,"p.c.baker@hud.ac.uk"
'BOOTH',"Dexter J","Dr",2908,"d.j.booth@hud.ac.uk"
'ENGLAND',"Roger K","Mr",2152,"r.k.england@hud.ac.uk"
'HOOD',"Peter W L","Mr",2909,"p.w.l.hood@hud.ac.uk"
'JACKSON',"Adrian R","Dr",2098,"a.r.jackson@hud.ac.uk"
'KITCHIN',"Diane E","Dr",2204,"d.e.kitchin@hud.ac.uk"
'LU',"Joan","Dr",2922,"j.lu@hud.ac.uk"
'LUNN',"Ken","Dr",3118,"k.lunn@hud.ac.uk"
'MASON',"John C","Professor",2680,"j.c.mason@hud.ac.uk"
stafflist
type 'head' for the first set of lines or 'tail' for the last set of lines
tail
How many lines do you want to read from the END of stafflist
12
'LU',"Joan","Dr",2922,"j.lu@hud.ac.uk"
'LUNN',"Ken","Dr",3118,"k.lunn@hud.ac.uk"
'MASON',"John C","Professor",2680,"j.c.mason@hud.ac.uk"
'McCLUSKEY',"T Lee","Professor",2247,"t.l.mccluskey@hud.ac.uk"
'NEWMAN',"Christopher","Dr",2912,"c.newman@hud.ac.uk"
'OSBORNE',"Hugh R","Dr",3672,"h.r.osborne@hud.ac.uk"
'PRIESTLEY',"John B","Mr",2467,"j.b.priestley@hud.ac.uk"
'SIMPSON',"Ronald M","Mr",2211,"r.m.simpson@hud.ac.uk"
'SMITH',"Ann","Ms",2979,"a.smith@hud.ac.uk"
'STURDY',"Paula","Ms",2927,"p.sturdy@hud.ac.uk"
'TURNER',"John K","Dr",2422,"j.k.turner@hud.ac.uk"
'WEST',"Margaret M","Dr",3046,"m.m.west@hud.ac.uk"
telnos
type 'head' for the first set of lines or 'tail' for the last set of lines
head
Type the number of lines you want to read from the beginning of telnos
14
'ALLEN',"Gary","Dr",2152,"g.allen@hud.ac.uk"

```

```
u1857977@ouranos:~$ lshead.bash tes
/home/user/u1857977/bin/lshead.bash: line 5: cd: /home/user/u1857977/tes: No such file or directory
1
type 'head' for the first set of lines or 'tail' for the last set of lines
^Z
[12]+  Stopped                  lshead.bash tes
u1857977@ouranos:~$
```

Del:

```
]#!/bin/bash
#copies files from current directory, and copies into .waste directory

for file in "$@"
do
    if [ -f $file ]
    then
        cp $file ~/bin/.waste
        echo $file "has been copied to directory .waste"
    else
        echo $file "does not exist"
    fi
done
```

```
u1857977@ouranos:~/testfiles$ del.bash file1
file1 has been copied to directory .waste
u1857977@ouranos:~/testfiles$ del.bash f
f does not exist
u1857977@ouranos:~/testfiles$ cd
u1857977@ouranos:~$ mkdir dir
u1857977@ouranos:~$ del.bash dir
dir does not exist
```

Wastesize:

```
#!/bin/bash
#Program outputs number of files in waste bin

cd ~/bin/.waste
num_of_files=$(ls -al | wc -l)

echo "The number of files in the wastebin are $num_of_files"
```

```
u1857977@ouranos:~/bin$ wastesize.bash
The number of files in the wastebin are 6
u1857977@ouranos:~/bin$ cd .waste
u1857977@ouranos:~/bin/.waste$ >file
u1857977@ouranos:~/bin/.waste$ cd ..
u1857977@ouranos:~/bin$ cd
u1857977@ouranos:~$ wastesize.bash
The number of files in the wastebin are 7
u1857977@ouranos:~$
```

Emptywaste.bash

```
#!/bin/bash

rm -rf ~/bin/.waste/*
if [ $? = 0 ]
then
    echo "The waste bin was emptied"
else
    echo "The wastebin could not be emptied"
fi
```

```
u1857977@ouranos:~/bin/.waste$ mk dir test
mk: command not found
u1857977@ouranos:~/bin/.waste$ >kjh
u1857977@ouranos:~/bin/.waste$ >kj
u1857977@ouranos:~/bin/.waste$ emptywaste.bash
The waste bin was emptied
u1857977@ouranos:~/bin/.waste$ ls -al
total 8
drwxr-xr-x 2 u1857977 stud1819 4096 Dec 14 23:45 .
drwxr-xr-x 3 u1857977 stud1819 4096 Dec 14 23:44 ..
u1857977@ouranos:~/bin/.waste$
```

Listwaste:

```
#!/bin/bash
#lists al files in .wate directory
cd ~/bin/.waste
echo "Below are the files in the waste bin in order of smallest to largest"
du -h * | sort -hr
#disk usage - make size readable - sort from largest to smallest
```

```
Below are the files in the waste bin in order of smallest to largest
4.0K   testdir
4.0K   file1
0      kammy.txt
0      file
```

Question 2:

```
u1857977@ouranos:~/bin$ cd
u1857977@ouranos:~$ mkdir testu
u1857977@ouranos:~$ cd testu
u1857977@ouranos:~/testu$ createfiles 5 test 10
bash: /home/user/u1857977/bin/createfiles: No such file or directory
u1857977@ouranos:~/testu$ createfiles.bash 5 test 10
created test1.txt , containing 10 lines
created test2.txt , containing 10 lines
created test3.txt , containing 10 lines
created test4.txt , containing 10 lines
created test5.txt , containing 10 lines
u1857977@ouranos:~/testu$ ls -al
total 28
drwxr-xr-x  2 u1857977 stud1819 4096 Dec 14 23:47 .
drwx----- 36 u1857977 root    4096 Dec 14 23:46 ..
-rw-r--r--  1 u1857977 stud1819  810 Dec 14 23:47 test1.txt
-rw-r--r--  1 u1857977 stud1819  810 Dec 14 23:47 test2.txt
-rw-r--r--  1 u1857977 stud1819  810 Dec 14 23:47 test3.txt
-rw-r--r--  1 u1857977 stud1819  810 Dec 14 23:47 test4.txt
-rw-r--r--  1 u1857977 stud1819  810 Dec 14 23:47 test5.txt
u1857977@ouranos:~/testu$
```


Search.bash

```
u1857977@ouranos:~$ search.bash
Enter the name of the file you wish to search for
file1.txt
realpath: missing operand
Try 'realpath --help' for more information.
more: bad usage
Try 'more --help' for more information.
Word to search: ^Z
[16]+  Stopped                  search.bash
u1857977@ouranos:~$ search.bash
Enter the name of the file you wish to search for
test.txt
Word to search: fdv
word doesn't exists in the chose file
Would you like to see the contents of the file (y/n)?
y
Here is the content:
1236hgjdbjkad
```

Masher.bash

```
u1857977@ouranos:~$ masher.bash
enter string
jhdb%&%^
8
enter string
&^%&%*
6
0
4
10
u1857977@ouranos:~$ █
```