

MAC_OS ASSIGNMENT

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Course: Operating System Lab

Section: BM

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1.

1.1. Create directories A and B.

Last login: Mon Jan 10 12:58:22 on console

```
The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
IMAC-001:~ majustudent$ ls
Desktop      Downloads    Movies       Pictures
Documents    Library      Music        Public
IMAC-001:~ majustudent$ cd Desktop/
IMAC-001:Desktop majustudent$ mkdir mainFolder
IMAC-001:Desktop majustudent$ cd mainFolder/
IMAC-001:mainFolder majustudent$ mkdir A B
IMAC-001:mainFolder majustudent$ ls
A      B
IMAC-001:mainFolder majustudent$
```

1.2. Create a file in directory A named Textile using cat command.

```
IMAC-001:A majustudent$ cat > Textile.txt
sdff

IMAC-001:A majustudent$ ls
Textile.txt
IMAC-001:A majustudent$ cat Textile.txt
sdff
```

1.3. Write YOUR PERSONAL INFORMATION in to file.

```
IMAC-001:A majustudent$ cat > Textile.txt
our team name is Jaffar Ahmed Fahad Samin
IMAC-001:A majustudent$ ls
Textile.txt
IMAC-001:A majustudent$ cat Textile.txt
our team name is Jaffar Ahmed Fahad Samin
IMAC-001:A majustudent$
```

1.4. Create text files named file1, file2 and file3 in directory B using touch command.

```
IMAC-001:B majustudent$ touch file1 file2 file3
IMAC-001:B majustudent$ ls
file1  file2  file3
IMAC-001:B majustudent$ cat > file1
this is file 1
IMAC-001:B majustudent$ cat > file2
this is file 2IMAC-001:B majustudent$
```

1.5. Merge files file1, file2 and save it in file3.

```
IMAC-001:B majustudent$ cat file1 file2 > file3
IMAC-001:B majustudent$ cat file3
this is file 1
this is file 2IMAC-001:B majustudent$
IMAC-001:B majustudent$
```

1.6. Create a file and set permissions to the created file of your own choice (using both symbolic and absolute mode)

Symbolic mode

```
IMAC-001:B majustudent$ chmod 444 file1
IMAC-001:B majustudent$ ls -l
total 24
-r--r--r-- 1 majustudent JINNAH\Domain Users 15 Jan 10 13:09 file1
-rw-r--r-- 1 majustudent JINNAH\Domain Users 14 Jan 10 13:09 file2
-rw-r--r-- 1 majustudent JINNAH\Domain Users 29 Jan 10 13:09 file3
IMAC-001:B majustudent$
```

Absolute mode

```
IMAC-001:B majustudent$ chmod u=w,g=r,o=rw file2
IMAC-001:B majustudent$ ls -l
total 24
-r--r--r-- 1 majustudent JINNAH\Domain Users 15 Jan 10 13:09 file1
--w-r--rw- 1 majustudent JINNAH\Domain Users 14 Jan 10 13:09 file2
-rw-r--r-- 1 majustudent JINNAH\Domain Users 29 Jan 10 13:09 file3
IMAC-001:B majustudent$
```

1.7. Change ownership and group of a file.

```
IMAC-001:B majustudent$ chmod u=w,g=r,o=rw file2
IMAC-001:B majustudent$ ls -l
total 24
-r--r--r-- 1 majustudent JINNAH\Domain Users 15 Jan 10 13:09 file1
--w-r--rw- 1 majustudent JINNAH\Domain Users 14 Jan 10 13:09 file2
-rw-r--r-- 1 majustudent JINNAH\Domain Users 29 Jan 10 13:09 file3
IMAC-001:B majustudent$
```

2.

2.1. Write a shell script to take a number input from user and then print the table for the given number.
I.e. if n=5 then 5*1=5.

Shell script:

GNU nano 2.0.6 File: script.sh

```
#!/bin/sh

echo "Table"

read number
start=1
while [ $start -le 10 ]
do
echo "$number x $start = `expr $number \* $start`"
start=`expr $start + 1`
done
```

[Read 12 lines]

^G Get Help	^O WriteOut	^R Read File	^Y Prev Page	^K Cut Text	^C Cur Pos
^X Exit	^J Justify	^W Where Is	^V Next Page	^U UnCut Text	^T To Spell

Output:

```
IMAC-001:B majustudent$ nano script.sh
IMAC-001:B majustudent$ bash script.sh
Table
5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
IMAC-001:B majustudent$
```

3.

3.1. Which pipe of commands would you use to count the number of processes owned by you only? Run the command and count how many processes you own?

```
majustudent 1427 0.0 0.1 408272096 19408 ?? S 12:58PM 0:00.40 /usr/sbin/usernoted
majustudent 1426 0.0 0.1 408233232 20512 ?? S 12:58PM 0:00.34 /usr/libexec/routined LAUNCHED_BY_LA
majustudent 1425 0.0 0.1 408238592 18656 ?? S 12:58PM 0:00.14 /usr/libexec/rapporid
majustudent 1424 0.0 0.1 408265184 11584 ?? S 12:58PM 0:00.53 /System/Library/PrivateFrameworks/Vi
majustudent 1423 0.0 0.0 408060848 4400 ?? S 12:58PM 0:00.02 /System/Library/CoreServices/APFSUse
majustudent 1422 0.0 0.2 408279232 30496 ?? S 12:58PM 0:00.27 /System/Library/Frameworks/CoreTelep
majustudent 1421 0.0 0.1 408270048 18528 ?? S 12:58PM 0:00.58 /usr/libexec/pkd
majustudent 1419 0.0 0.1 408268304 18800 ?? S 12:58PM 0:00.52 /usr/libexec/secd
majustudent 1418 0.0 0.1 408272224 18432 ?? S 12:58PM 0:04.58 /usr/libexec/trustd --agent
majustudent 1417 0.0 0.0 408096160 3904 ?? S 12:58PM 0:00.01 /System/Library/Frameworks/CoreServi
majustudent 1416 0.0 0.2 408271392 29376 ?? S 12:58PM 0:03.91 /usr/libexec/secinitd
majustudent 1415 0.0 0.1 408741600 18560 ?? Ss 12:58PM 0:00.04 /System/Library/Frameworks/QuickLook
majustudent 1414 0.0 0.1 408269792 15936 ?? S 12:58PM 0:00.17 /System/Library/PrivateFrameworks/Cl
majustudent 1413 0.0 0.1 408269808 17440 ?? S 12:58PM 0:00.52 /usr/libexec/lsd
majustudent 1410 0.0 1.0 409844432 170944 ?? S 12:58PM 0:06.44 /System/Library/CoreServices/Finder.
majustudent 1409 0.0 0.2 409118896 28784 ?? S 12:58PM 0:00.26 /System/Library/CoreServices/SystemU
majustudent 1407 0.0 0.6 409760208 102000 ?? S 12:58PM 0:01.47 /System/Library/CoreServices/Dock.ap
majustudent 1406 0.0 0.1 408275440 15616 ?? S 12:58PM 0:00.09 /System/Library/CoreServices/talagen
majustudent 1405 0.0 0.2 408271392 29680 ?? S 12:58PM 0:00.72 /usr/libexec/knowledge-agent
majustudent 1404 0.0 0.1 408237008 20000 ?? S 12:58PM 0:00.30 /System/Library/PrivateFrameworks/Co
majustudent 1403 0.0 0.1 408740352 16368 ?? S 12:58PM 0:00.12 /usr/sbin/universalaccessd launchd -
majustudent 1401 0.0 0.1 408267072 18992 ?? S 12:58PM 0:00.90 /usr/libexec/UserEventAgent (Aqua)
majustudent 1400 0.0 0.0 408235872 5632 ?? S 12:58PM 0:01.96 /usr/sbin/cfprefsd agent
root 1820 0.0 0.0 408628304 1808 s000 R+ 1:25PM 0:00.01 ps ux
majustudent 1399 0.0 0.0 408170368 6240 ?? S 12:58PM 0:01.07 /usr/sbin/distnoted agent
majustudent 1678 0.0 0.0 408238864 5584 ?? S 1:03PM 0:00.02 /System/Library/Frameworks/ColorSync
IMAC-001:B majustudent$ ps ux | wc -l
189
IMAC-001:B majustudent$
```