

ASSIGNMENT - 2

OPERATING SYSTEM

NAITIK GARG

102065022

3NC8

Question1)

```
$ assign2.sh
1 echo "naitik second year student"
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ sed -i 's/second/third/' assign2.sh

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ chmod +x assign2.sh

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ ./assign2.sh
naitik third year student
```

Question2)

≡ q2.txt

```
1  Naitik Garg
2  102065022
3  3NC8
4  Btech
5  Naitik Garg 3r year student
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ grep -i "Naitik" q2.txt
Naitik Garg
Naitik Garg 3r year student
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ grep -c "Naitik" q2.txt
2
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ grep -l "Naitik" q2.txt
q2.txt
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ grep -v "Naitik" q2.txt
102065022
3NC8
Btech
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ grep -o "Naitik" q2.txt
Naitik
Naitik
```

- i: The -i option enables to search for a string case insensitively in the given file
- c: We can find the number of lines that matches the given string/pattern
- l: We can just display the files that contains the given string/pattern
- o: By default, grep displays the entire line which has the matched string

-v: You can display the lines that are not matched with the specified search string pattern using the -v option.

Question3)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ touch q3.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ stat q3.txt
  File: q3.txt
  Size: 0                Blocks: 0          IO Block: 65536  regular empty file
Device: 5c5ec0deh/1549713630d  Inode: 844424930156957  Links: 1
Access: (0644/-rw-r--r--)  Uid: (197609/ DELL-PC)   Gid: (197121/ UNKNOWN)
Access: 2022-09-07 22:38:59.653301300 +0530
Modify: 2022-09-07 22:38:59.653301300 +0530
Change: 2022-09-07 22:38:59.652167500 +0530
 Birth: 2022-09-07 22:38:59.652167500 +0530

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ touch -a q3.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ stat q3.txt
  File: q3.txt
  Size: 0                Blocks: 0          IO Block: 65536  regular empty file
Device: 5c5ec0deh/1549713630d  Inode: 844424930156957  Links: 1
Access: (0644/-rw-r--r--)  Uid: (197609/ DELL-PC)   Gid: (197121/ UNKNOWN)
Access: 2022-09-07 22:39:34.993088400 +0530
Modify: 2022-09-07 22:38:59.653301300 +0530
Change: 2022-09-07 22:39:34.993093400 +0530
 Birth: 2022-09-07 22:38:59.652167500 +0530
```

Touch -a filename → this command change access time of file.

Question4)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ ls -l
total 15
-rw-r--r-- 1 DELL-PC 197121 32 Sep 7 21:17 assign2.sh
-rw-r--r-- 1 DELL-PC 197121 20 Jul 18 13:02 first.txt
-rw-r--r-- 1 DELL-PC 197121 0 Jul 19 11:34 fourth.txt
drwxr-xr-x 1 DELL-PC 197121 0 Jul 18 18:37 'New folder'/
-rw-r--r-- 1 DELL-PC 197121 64 Sep 7 22:27 q2.txt
-rw-r--r-- 1 DELL-PC 197121 0 Sep 7 22:38 q3.txt
-rw-r--r-- 1 DELL-PC 197121 8501 Jul 18 13:19 second.xlsx
```

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ find . -name first.txt
./first.txt
```

Question5)

Create hard link of file index.txt to first.txt

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash/ass_delete (master)
$ ln index.txt first.txt
```

```
≡ first.txt U X ≡ index.txt U
ass_delete > ≡ first.txt
1 |this is an index
```

```
≡ index.txt U X
ass_delete > ≡ index.txt
1 |this is an index
```

soft link:

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash/ass_delete (master)
$ ln -s index2.txt second.txt
```

Question6)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ ls -l
total 16
drwxr-xr-x 1 DELL-PC 197121  0 Jul 18 18:37 'New folder'/
drwxr-xr-x 1 DELL-PC 197121  0 Sep  7 23:16 ass_delete/
-rw-r--r-- 1 DELL-PC 197121 32 Sep  7 21:17 assign2.sh
-rw-r--r-- 1 DELL-PC 197121 20 Jul 18 13:02 first.txt
-rw-r--r-- 1 DELL-PC 197121 19 Sep  8 21:48 fourth.txt
-rw-r--r-- 1 DELL-PC 197121 64 Sep  7 22:27 q2.txt
-rw-r--r-- 1 DELL-PC 197121  0 Sep  7 22:38 q3.txt
-rw-r--r-- 1 DELL-PC 197121 8501 Jul 18 13:19 second.xlsx
```

Question7)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ stat source.txt
  File: source.txt
  Size: 0          Blocks: 0          IO Block: 65536   regular empty file
Device: 5c5ec0deh/1549713630d Inode: 1125899906867624 Links: 1
Access: (0644/-rw-r--r--)  Uid: (197609/  DELL-PC)   Gid: (197121/ UNKNOWN)
Access: 2022-09-10 03:04:36.082640400 +0530
Modify: 2022-09-10 03:04:36.082640400 +0530
Change: 2022-09-10 03:04:36.078507600 +0530
 Birth: 2022-09-10 03:04:36.078507600 +0530
```

Question8)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ cat link.txt
hi, this is assignment 3
```

Question9)

```

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ ls -l
total 17
drwxr-xr-x 1 DELL-PC 197121 0 Jul 18 18:37 'New folder'/
drwxr-xr-x 1 DELL-PC 197121 0 Sep 7 23:16 ass_delete/
-rw-r--r-- 1 DELL-PC 197121 32 Sep 7 21:17 assign2.sh
-rw-r--r-- 1 DELL-PC 197121 20 Jul 18 13:02 first.txt
-rw-r--r-- 1 DELL-PC 197121 19 Sep 8 21:48 fourth.txt
-rw-r--r-- 1 DELL-PC 197121 24 Sep 10 03:05 link.txt
-rw-r--r-- 1 DELL-PC 197121 64 Sep 7 22:27 q2.txt
-rw-r--r-- 1 DELL-PC 197121 0 Sep 7 22:38 q3.txt
-rw-r--r-- 1 DELL-PC 197121 8501 Jul 18 13:19 second.xlsx
-rw-r--r-- 1 DELL-PC 197121 0 Sep 10 03:04 source.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ sort link.txt
hi, this is assignment 3

```

Question10)

```

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ ls -l
total 17
drwxr-xr-x 1 DELL-PC 197121 0 Jul 18 18:37 'New folder'/
drwxr-xr-x 1 DELL-PC 197121 0 Sep 7 23:16 ass_delete/
-rw-r--r-- 1 DELL-PC 197121 32 Sep 7 21:17 assign2.sh
-rw-r--r-- 1 DELL-PC 197121 20 Jul 18 13:02 first.txt
-rw-r--r-- 1 DELL-PC 197121 19 Sep 8 21:48 fourth.txt
-rw-r--r-- 1 DELL-PC 197121 24 Sep 10 03:05 link.txt
-rw-r--r-- 1 DELL-PC 197121 64 Sep 7 22:27 q2.txt
-rw-r--r-- 1 DELL-PC 197121 0 Sep 7 22:38 q3.txt
-rw-r--r-- 1 DELL-PC 197121 8501 Jul 18 13:19 second.xlsx
-rw-r--r-- 1 DELL-PC 197121 0 Sep 10 03:04 source.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ bzip2 link.txt

```

Question11)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ touch linking.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ tar -cvf archive.tar linking.txt source.txt
linking.txt
source.txt
```

Question12)

```
DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ mkdir question

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash (master)
$ cd question

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash/question (master)
$ touch source.txt

DELL-PC@DESKTOP-S135V6B MINGW64 /d/yash/question (master)
$ chown AK source.txt
chown: invalid user: 'AK'
```