

Assignment-2

Question-1)

```
echo| Akshit Gupta Gupta second year Enc8
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
q1.sh [unix] (16:06 10/08/2022) 1,5 All
"q1.sh" [unix] 1L, 41B
```

```
STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ sed -i 's/second year/third year/' q1.sh

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ chmod +x q1.sh

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ vi q1.sh

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ ./ q1.sh
bash: ./: Is a directory

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ ./q1.sh
Akshit Gupta Gupta third year Enc8
```

Question-2)

```
AKSHIT
├── ak.txt
├── q1.sh
├── q2.sh
└── question2.txt
```

```
question2.txt
1 Akshit Gupta
2 Akshit Gupta ENC8
3 second Year
4 B.Tech
5 Akshit Gupta ENC-8 second year .Tech
6
```

```
STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ grep -i "Akshit" question2.txt
Akshit Gupta
Akshit Gupta ENC8
Akshit Gupta ENC-8 second year .Tech

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ grep -c "Akshit" question2.txt
3

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ grep -l "Akshit" *
q1.sh
question2.txt

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ grep -o "Akshit" question2.txt
Akshit
Akshit
Akshit

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ grep -v "Akshit" question2.txt
second Year
B.Tech
```

- 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.

Question-3)

```
STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ touch question3.txt

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ stat question3.txt
  File: question3.txt
  Size: 0             Blocks: 0          IO Block: 65536  regular empty file
Device: 5660020ah/1449132554d Inode: 7036874417865775 Links: 1
Access: (0644/-rw-r--r--)  Uid: (197610/  STUDENT)   Gid: (197121/ UNKNOWN)
Access: 2022-08-10 16:42:33.242053000 +0530
Modify: 2022-08-10 16:42:33.242053000 +0530
Change: 2022-08-10 16:42:33.231730800 +0530
 Birth: 2022-08-10 16:42:33.231730800 +0530

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ touch -a question3.txt

STUDENT@DESKTOP-5Q857V9 MINGW64 ~/Akshit
$ stat question3.txt
  File: question3.txt
  Size: 0             Blocks: 0          IO Block: 65536  regular empty file
Device: 5660020ah/1449132554d Inode: 7036874417865775 Links: 1
Access: (0644/-rw-r--r--)  Uid: (197610/  STUDENT)   Gid: (197121/ UNKNOWN)
Access: 2022-08-10 16:43:54.319995300 +0530
Modify: 2022-08-10 16:42:33.242053000 +0530
Change: 2022-08-10 16:43:54.319105400 +0530
 Birth: 2022-08-10 16:42:33.231730800 +0530
```

```
Mandatory arguments to long options are mandatory for short options too.
-a                change only the access time
-c, --no-create   do not create any files
-d, --date=STRING parse STRING and use it instead of current time
-f               (ignored)
-h, --no-dereference affect each symbolic link instead of any referenced
                  file (useful only on systems that can change the
                  timestamps of a symlink)
-m               change only the modification time
-r, --reference=FILE use this file's times instead of current time
-t STAMP          use [[CC]YY]MMDDhhmm[.ss] instead of current time
  --time=WORD      change the specified time:
                   WORD is access, atime, or use: equivalent to -a
                   WORD is modify or mtime: equivalent to -m
  --help          display this help and exit
  --version       output version information and exit
```

Note that the -d and -t options accept different time-date formats.

Question-4)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI
$ ls -l
total 8
drwxr-xr-x 1 HP 197121 0 Aug  4 16:09 assignment1/
drwxr-xr-x 1 HP 197121 0 Aug  9 00:01 assignment2/
drwxr-xr-x 1 HP 197121 0 Aug 10 13:55 assignment3/

HP@DESKTOP-8A8DKGD MINGW64 ~/AI
$ find . -name assignment1
./assignment1
```

Question-5)

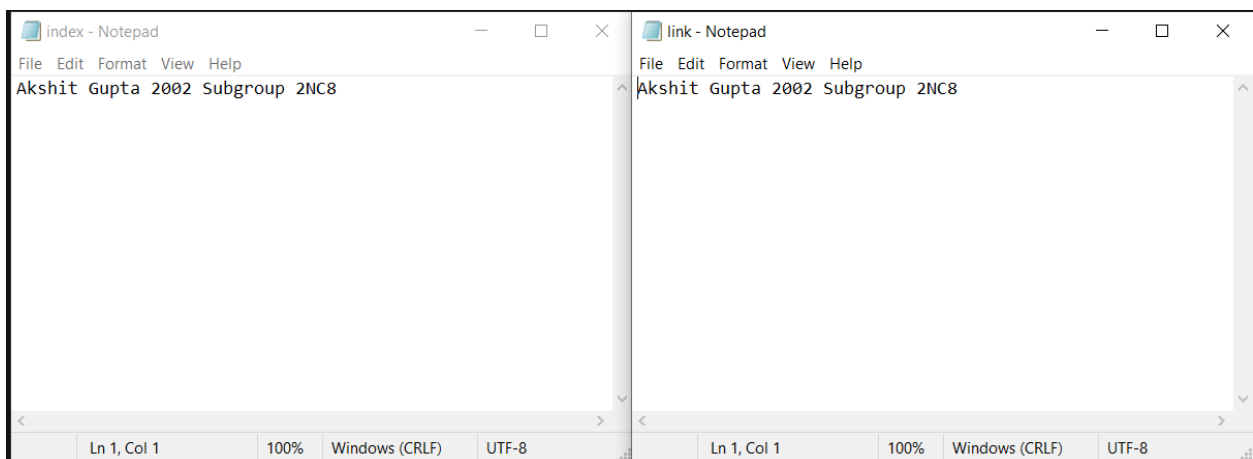
Hard Link

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI
$ ls
assignment1/ assignment2/ assignment3/ assignment_delete/

HP@DESKTOP-8A8DKGD MINGW64 ~/AI
$ cd assignment_delete

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment_delete
$ touch index.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment_delete
$ ln index.txt link.txt
```

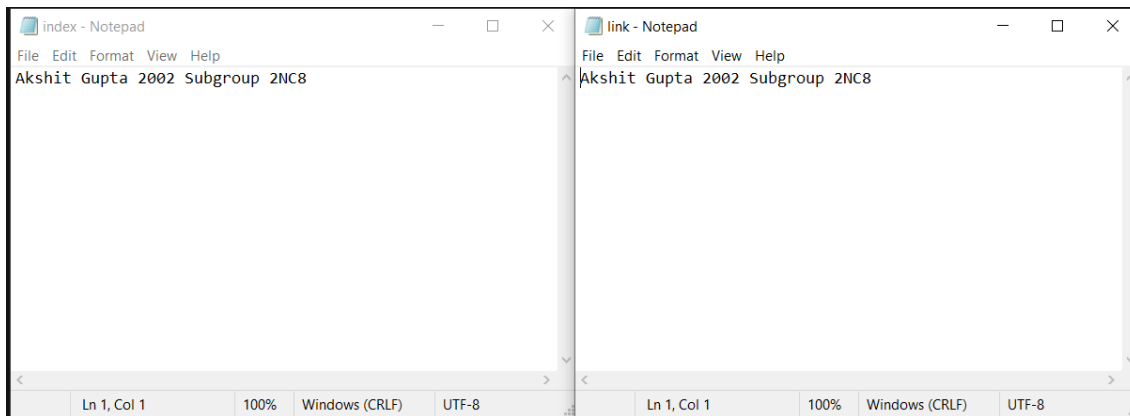


Soft Link

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment_delete
$ touch index2.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment_delete
$ ln -s index2.txt link2.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment_delete
$ |
```



Question-6)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ touch source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ touch link.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ln -s source.txt link.txt
ln: failed to create symbolic link 'link.txt': File exists

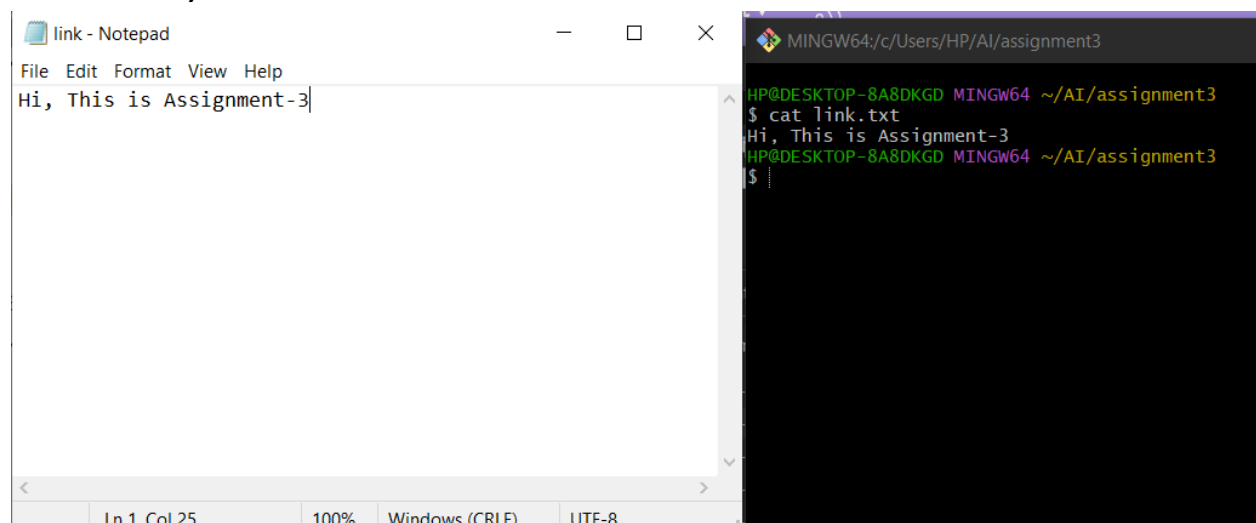
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ln -s source.txt linking.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ls -l
total 0
drwxr-xr-x 1 HP 197121 0 Aug 10 13:55 directory/
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 link.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 linking.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 13:44 q1.sh
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 source.txt
```

Question-7)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ stat source.txt
  File: source.txt
  Size: 0          Blocks: 0          IO Block: 65536   regular empty file
Device: 429806c5h/1117259461d Inode: 80501843339288614 Links: 1
Access: (0644/-rw-r--r--)  Uid: (197609/   HP)   Gid: (197121/ UNKNOWN)
Access: 2022-08-10 23:32:05.030423000 +0530
Modify: 2022-08-10 23:32:05.030423000 +0530
Change: 2022-08-10 23:32:05.030066500 +0530
 Birth: 2022-08-10 23:32:05.030066500 +0530
```

Question-8)



Question-9)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ls -l
total 1
drwxr-xr-x 1 HP 197121  0 Aug 10 13:55 directory/
-rw-r--r-- 1 HP 197121 24 Aug 10 23:38 link.txt
-rw-r--r-- 1 HP 197121  0 Aug 10 23:32 linking.txt
-rw-r--r-- 1 HP 197121  0 Aug 10 13:44 q1.sh
-rw-r--r-- 1 HP 197121  0 Aug 10 23:32 source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ sort link.txt
Hi, This is Assignment-3
```

Question-10)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ls -l
total 1
drwxr-xr-x 1 HP 197121 0 Aug 10 13:55 directory/
-rw-r--r-- 1 HP 197121 24 Aug 10 23:38 link.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 linking.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 13:44 q1.sh
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ bzip2 link.txt
```

Question-11)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ls -l
total 1
drwxr-xr-x 1 HP 197121 0 Aug 10 13:55 directory/
-rw-r--r-- 1 HP 197121 65 Aug 10 23:45 link.txt.bz2
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 linking.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 13:44 q1.sh
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ tar -cvf archive.tar linking.txt source.txt
linking.txt
source.txt
```

Question-12)

```
HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ ls -l
total 13
-rw-r--r-- 1 HP 197121 10240 Aug 10 23:49 archive.tar
drwxr-xr-x 1 HP 197121 0 Aug 10 13:55 directory/
-rw-r--r-- 1 HP 197121 65 Aug 10 23:45 link.txt.bz2
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 linking.txt
-rw-r--r-- 1 HP 197121 0 Aug 10 13:44 q1.sh
-rw-r--r-- 1 HP 197121 0 Aug 10 23:32 source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ mkdir question

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3
$ cd question

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3/question
$ touch source.txt

HP@DESKTOP-8A8DKGD MINGW64 ~/AI/assignment3/question
$ chown Ak source.txt
chown: invalid user: 'Ak'
```

Since I had only one user for my pc