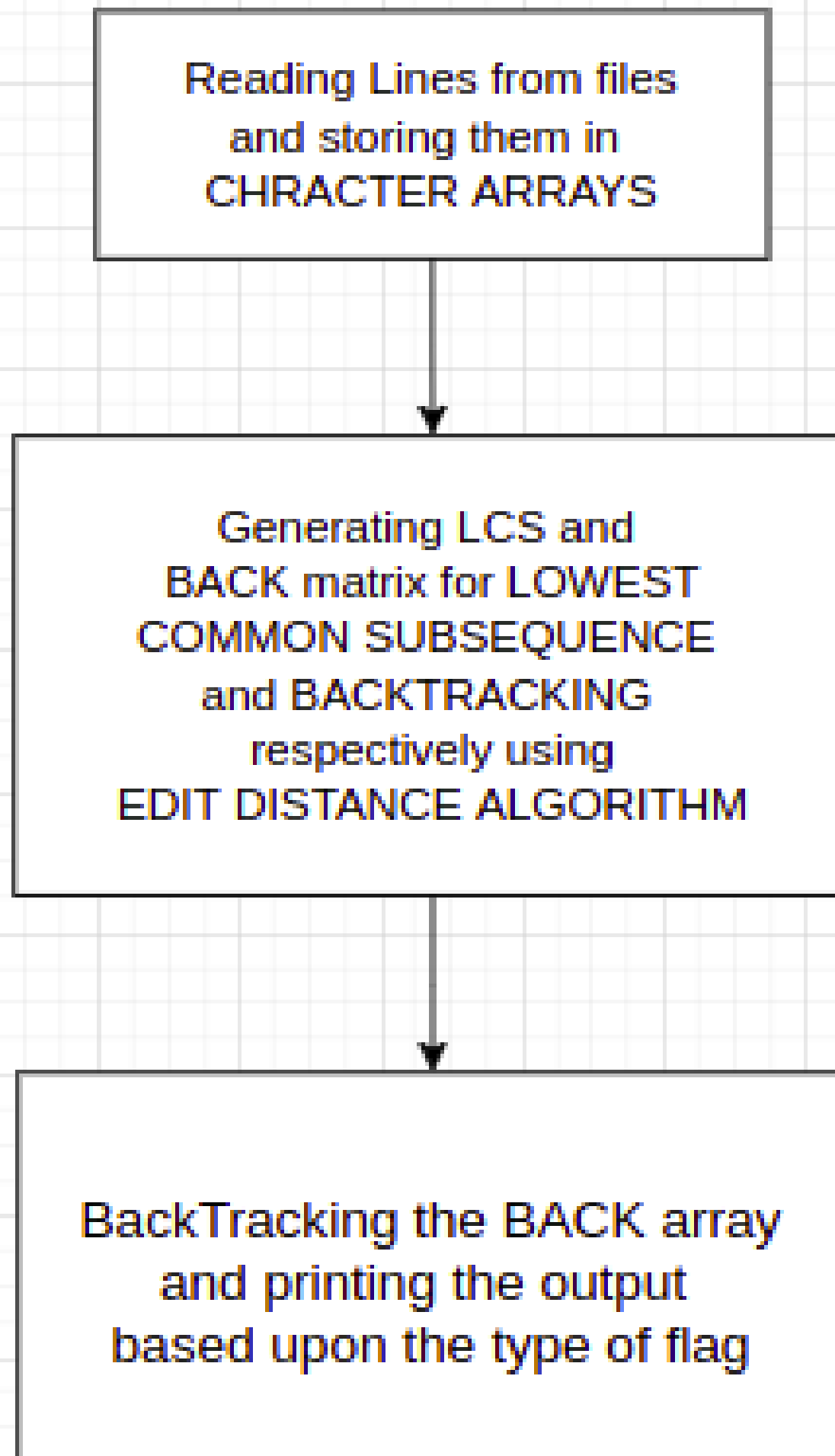


DIFF COMMAND

DIFFERENT FORMS OF DIFF COMMAND

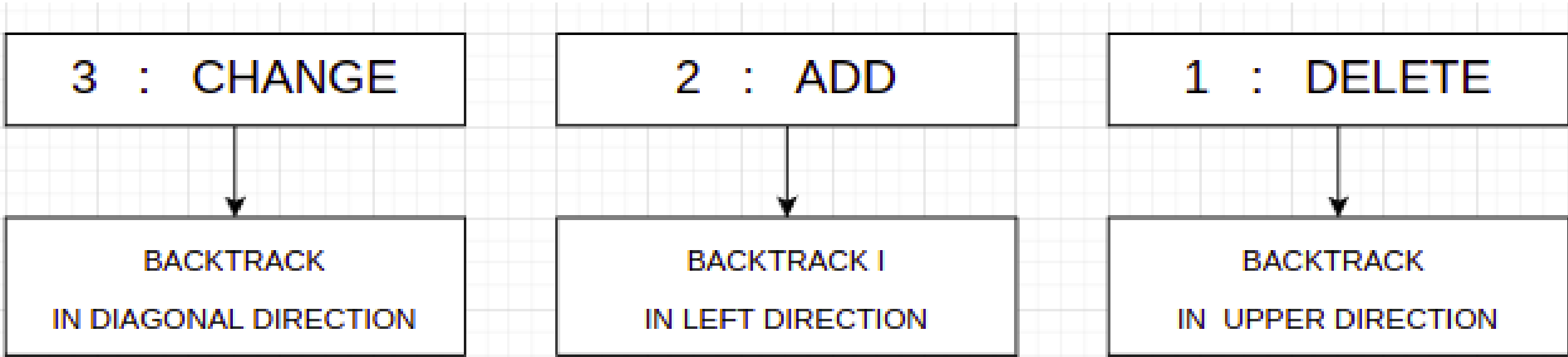
- `--normal`
output a normal diff (the default)
- `-q`
reports only when files differ
- `-S`
reports when two files are the same
- `-u`
output lines of unified context
- `--color`
colorize the output
- `-C`
output lines of copied context

EDIT DISTANCE ALGORITHM



str1="ABCDE"

str2="ADC"



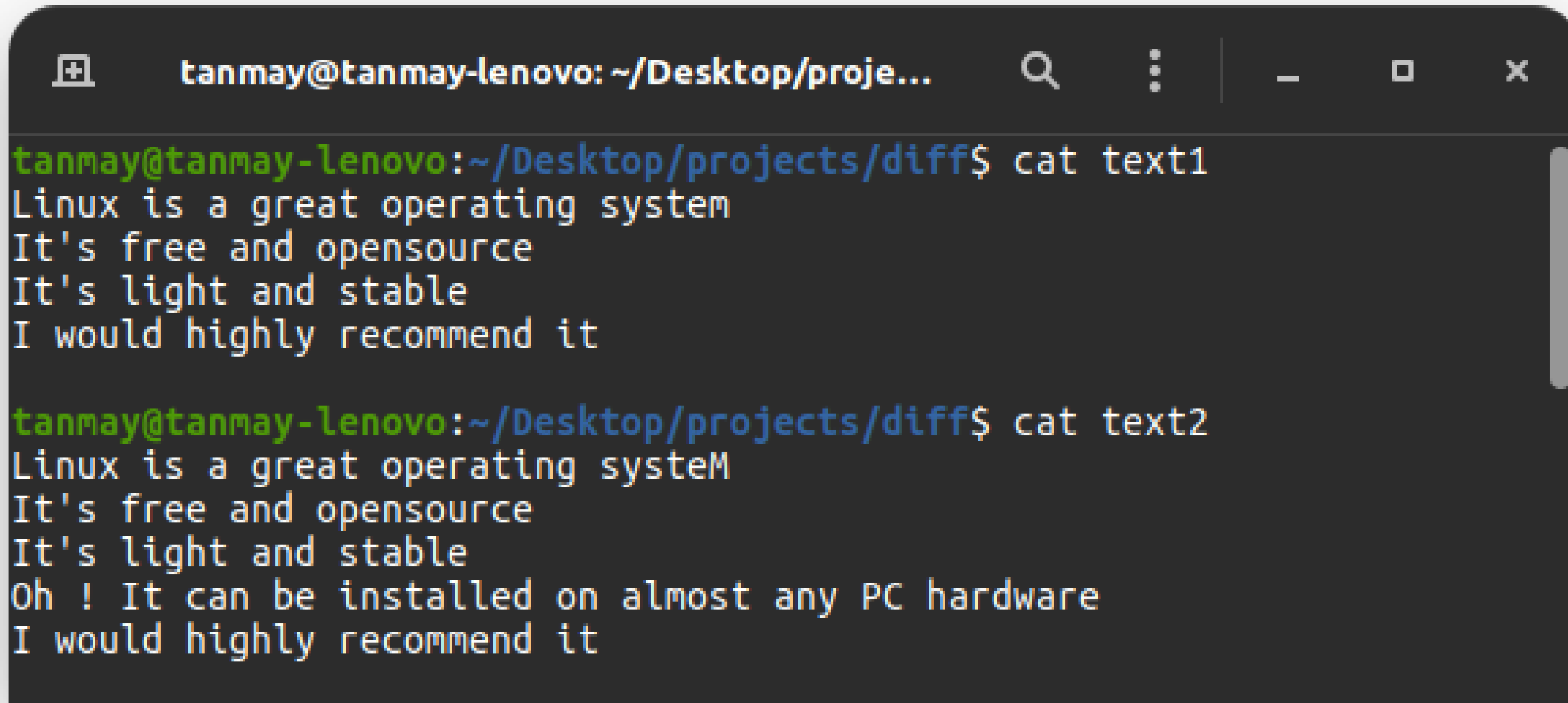
	"	A	D	C
"	0	1	2	3
A	1	0	1	2
B	2	1	1	2
C	3	2	2	2
D	4	3	2	2
E	5	4	3	3

LCS MATRIX

	"	A	D	C
"	0	0	0	0
A	0	3	2	2
B	0	1	3	2
C	0	1	1	3
D	0	1	3	1
E	0	1	1	3

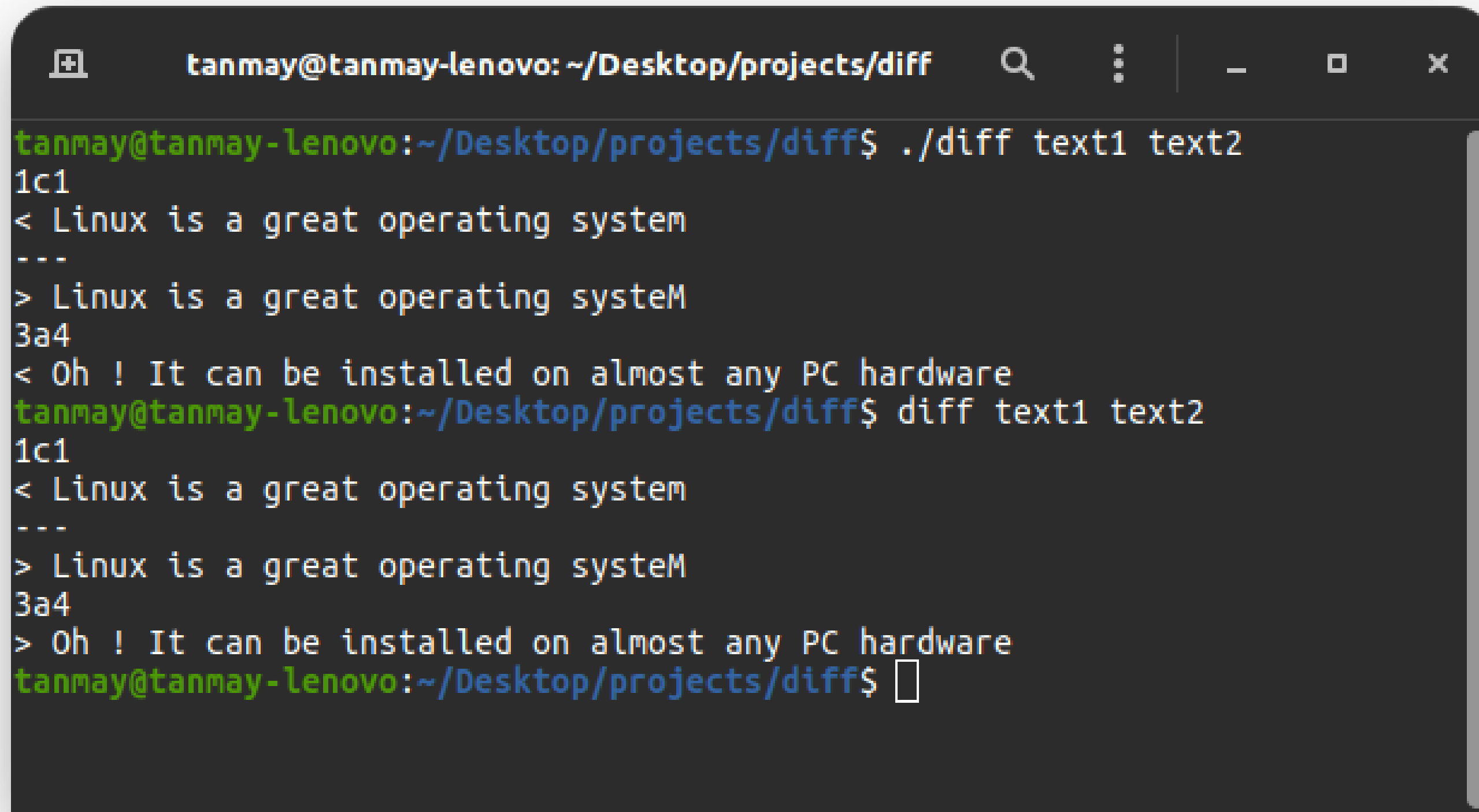
BACKTRACKING MATRIX

OUTPUT :



```
tanmay@tanmay-lenovo: ~/Desktop/proje...  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ cat text1  
Linux is a great operating system  
It's free and opensource  
It's light and stable  
I would highly recommend it  
  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ cat text2  
Linux is a great operating system  
It's free and opensource  
It's light and stable  
Oh ! It can be installed on almost any PC hardware  
I would highly recommend it
```

--normal

A terminal window with a dark background and light-colored text. The window title bar shows the user 'tanmay' on a machine named 'tanmay-lenovo' in the directory '~/Desktop/projects/diff'. The terminal shows the execution of the 'diff' command on 'text1' and 'text2'. The output shows two differences: a character change at line 1 and a line addition at line 3. The prompt is repeated after the first output block.

```
tanmay@tanmay-lenovo: ~/Desktop/projects/diff
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2
1c1
< Linux is a great operating system
...
> Linux is a great operating system
3a4
< Oh ! It can be installed on almost any PC hardware
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ diff text1 text2
1c1
< Linux is a great operating system
...
> Linux is a great operating system
3a4
> Oh ! It can be installed on almost any PC hardware
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```

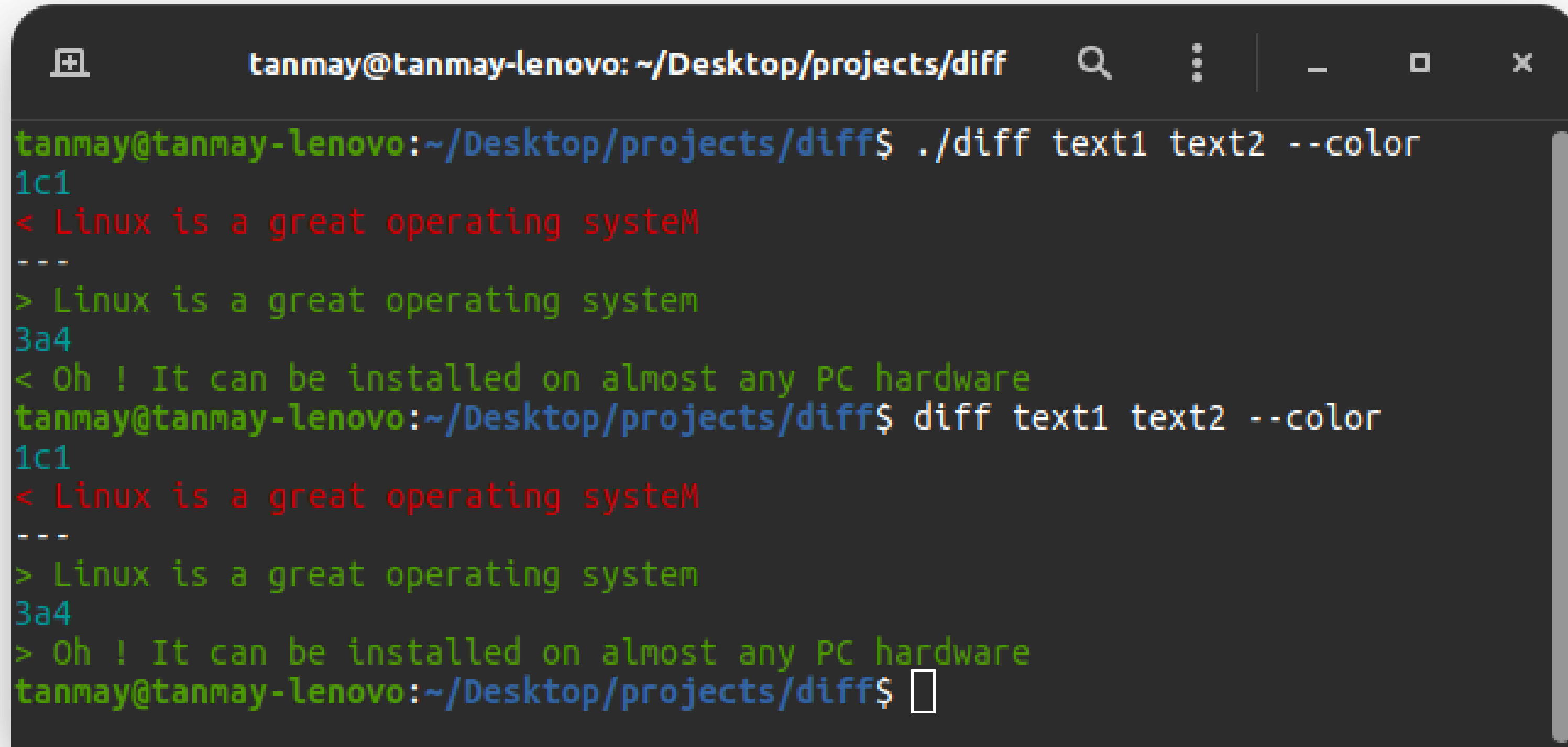
-S

```
tanmay@tanmay-lenovo: ~/Desktop/proje...  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2 -s  
1c1  
< Linux is a great operating system  
---  
> Linux is a great operating system  
3a4  
< Oh ! It can be installed on almost any PC hardware  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text1 -s  
Files text1 and text1 are identical  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```

-q

```
tanmay@tanmay-lenovo: ~/Desktop/proje...  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2 -q  
Files text1 and text2 differ  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text1 -q  
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```

--color



```
tanmay@tanmay-lenovo: ~/Desktop/projects/diff
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2 --color
1c1
< Linux is a great operating system
---
> Linux is a great operating system
3a4
< Oh ! It can be installed on almost any PC hardware
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ diff text1 text2 --color
1c1
< Linux is a great operating system
---
> Linux is a great operating system
3a4
> Oh ! It can be installed on almost any PC hardware
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```


-u

```
tanmay@tanmay-lenovo: ~/Desktop/projects/diff
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2 -u
--- text1      2022-06-12 16:27:1655031424 +0530
+++ text2      2022-06-12 16:26:1655031382 +0530
@@ -1,4 +1,5 @@
-Linux is a great operating system
+Linux is a great operating system
  It's free and opensource
  It's light and stable
+Oh ! It can be installed on almost any PC hardware
  I would highly recommend it
\ No newline at end of file
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ diff text1 text2 -u
--- text1      2022-06-12 16:27:04.719184691 +0530
+++ text2      2022-06-12 16:26:22.208143649 +0530
@@ -1,4 +1,5 @@
-Linux is a great operating system
+Linux is a great operating system
  It's free and opensource
  It's light and stable
+Oh ! It can be installed on almost any PC hardware
  I would highly recommend it
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```

-C

tanmay@tanmay-lenovo: ~/Desktop/projects/diff

```
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ ./diff text1 text2 -c
```

```
*** text1      2022-06-12 16:27:1655031424 +0530
```

```
--- text2      2022-06-12 16:26:1655031382 +0530
```

```
*****
```

```
*** 1,4 ****
```

```
! Linux is a great operating system
```

```
  It's free and opensource
```

```
  It's light and stable
```

```
  I would highly recommend it
```

```
\ No newline at end of file
```

```
--- 1,5 ----
```

```
! Linux is a great operating system
```

```
  It's free and opensource
```

```
  It's light and stable
```

```
+ Oh ! It can be installed on almost any PC hardware
```

```
  I would highly recommend it
```

```
\ No newline at end of file
```

```
tanmay@tanmay-lenovo:~/Desktop/projects/diff$ diff text1 text2 -c
```

```
*** text1      2022-06-12 16:27:04.719184691 +0530
```

```
--- text2      2022-06-12 16:26:22.208143649 +0530
```

```
*****
```

```
*** 1,4 ****
```

```
! Linux is a great operating system
```

```
  It's free and opensource
```

```
  It's light and stable
```

```
  I would highly recommend it
```

```
--- 1,5 ----
```

```
! Linux is a great operating system
```

```
  It's free and opensource
```

```
  It's light and stable
```

```
+ Oh ! It can be installed on almost any PC hardware
```

```
  I would highly recommend it
```

```
tanmay@tanmay-lenovo:~/Desktop/projects/diff$
```