

Homework1

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7. (a)

```
[u2017147594@elc1 ~]$ grep -E "Vivaldi.*a minor" music.txt
./music/Compilations/A. Vivaldi Famous Concertos/02 Concerto in a minor, Op.3, No.8.m4a
./music/Compilations/A. Vivaldi Famous Concertos/01 Concerto in a minor, Op.3, No.8.m4a
./music/Compilations/A. Vivaldi Famous Concertos/03 Concerto in a minor, Op.3, No.8.m4a
```

Option "-E" is used for Regular Expression. There are 3 concerts in a minor by Vivaldi.

```
[u2017147594@elc1 ~]$ grep -E -i "Vivaldi.*a minor" music.txt
./music/Compilations/A. Vivaldi Famous Concertos/02 Concerto in a minor, Op.3, No.8.m4a
./music/Compilations/A. Vivaldi Famous Concertos/01 Concerto in a minor, Op.3, No.8.m4a
./music/Compilations/A. Vivaldi Famous Concertos/03 Concerto in a minor, Op.3, No.8.m4a
./music/Compilations/Vivaldi_ L'Estro Armonico/15 Concerto No 8 in A Minor - allegro.m4a
./music/Compilations/Vivaldi_ L'Estro Armonico/16 Concerto No 8 in A Minor_ Larghetto e spiritoso.m4a
./music/Compilations/Vivaldi_ L'Estro Armonico/17 Concerto No 8 in A Minor - allegro.m4a
```

When case is ignored, there are 3 more concerts; written in capital letter "A".

(b)

Regular Expression : (c|d|e|f|g|a|h) minor

Escape letter is needed for command.

Command line is below:

```
/##(c##|d##|e##|f##|g##|a##|h##) minor
```

(c)

My code is here :

```
import sys
import re

if len(sys.argv) != 4:
    print("USAGE ERROR!")
    print("Usage: python replace.py source target filename")
    sys.exit(0)

srcStr = sys.argv[1]
dstStr = sys.argv[2]
filename = sys.argv[3]
text = ''

with open(filename, 'r') as f:
    text = f.read()

with open(filename, 'w') as f:
    text = re.sub(srcStr, dstStr, text)
    f.write(text)

print("Replacement Succeed!_")
~
```

It works on elc1 server

```
[u2017147594@elc1 hw1]$ cat testfile
int foo, foo1, foofoobar;
[u2017147594@elc1 hw1]$ python replace.py foo bar testfile
Replacement Succeed!
[u2017147594@elc1 hw1]$ cat testfile
int bar, bar1, barbarbar;
[u2017147594@elc1 hw1]$
```