

Your Own ‘**mv**’ for File Extensions

Homework Assignment #3

ELEC462-003 System Programming

(Instructor: Prof. Suh, Young-Kyoon)

Due: 1:59:59 pm, Thursday, March 30, 2023

Your task is to implement **mv -d -e**.

Write your own version of **mv** that accepts five arguments.

- 1) The first argument must be the name of the executable file.
- 2) The second argument must be the directory flag “-d”.
- 3) The third argument must be the name of a directory.
- 4) The fourth argument must be the file extension flag “-e”.
- 5) The fifth argument must be the name of a file extension.

 Refer to Page 3 to implement error handling.

<Precautions!!>

- Name your source code like: hw3_s<StudentID>.c.
- Zip the code and name it like hw3_s<StudentID>.zip.
Ex) If your student ID is 2022123456, your file name would be hw3_s2022123456.zip.
- Upload your zip file into LMS assignments tab.

[How to execute it]

[Usage] `./hw3_my_mv -d dest_directory -e file_extension`

Ex 1) `~$./hw3_my_mv -d dest1 -e txt`

Ex 2) `~$./hw3_my_mv -d dest1 -e java`

Ex 3) `~$./hw3_my_mv -d dest1 -e jpg`

(Again, your program **can accept** up to five arguments on the command line.)

[Expected output including several examples]

```
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ls -l
total 40
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:33 elec462.jpg
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:36 HelloWorld.java
-rwxrwxr-x 1 yksuh yksuh 13112  3월  20  22:32 hw3_my_mv
-rw-r--r-- 1 yksuh yksuh  2307  3월  20  22:32 hw3_my_mv.c
-rwxrwxr-x 1 yksuh yksuh 13112  3월  20  22:34 hw3_my_mv.copy
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:34 pytest1.py
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:34 pytest2.py
drwxrwxr-x 2 yksuh yksuh  4096  3월  20  22:37 test
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:34 test1.txt
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:34 test2.txt
-rw-rw-r-- 1 yksuh yksuh    0  3월  20  22:34 test3.txt
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d test -e java
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d test -e py
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d test -e txt
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ls -l test
total 0
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:36 HelloWorld.java
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:34 pytest1.py
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:34 pytest2.py
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:34 test1.txt
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:34 test2.txt
-rw-rw-r-- 1 yksuh yksuh 0  3월  20  22:34 test3.txt
yksuh@macan:~/courses/ELEC462/homeworks/hw3$
```

[Expected error including several examples]

```
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ls -l
total 40
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:33 elec462.jpg
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:36 HelloWorld.java
-rwxrwxr-x 1 yksuh yksuh 13112  3월  20 22:32 hw3_my_mv
-rw-r--r-- 1 yksuh yksuh  2307  3월  20 22:32 hw3_my_mv.c
-rwxrwxr-x 1 yksuh yksuh 13112  3월  20 22:34 hw3_my_mv.copy
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:34 pytest1.py
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:34 pytest2.py
drwxrwxr-x 2 yksuh yksuh  4096  3월  20 22:39 test
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:34 test1.txt
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:34 test2.txt
-rw-rw-r-- 1 yksuh yksuh    0  3월  20 22:34 test3.txt
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d test -e png
No files with extension png found
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d wrong_dest -e txt
Destination directory does not exist
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -e txt
Destination directory does not exist
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv
Destination directory does not exist
yksuh@macan:~/courses/ELEC462/homeworks/hw3$ ./hw3_my_mv -d test -e txt -j jjj
./hw3_my_mv: invalid option -- 'j'
Usage: ./hw3_my_mv -d destination_directory -e extension
yksuh@macan:~/courses/ELEC462/homeworks/hw3$
```

Q & A

If you have a question, then contact TA by email ([jtu6568 at gmail.com](mailto:jtu6568@gmail.com)). Or, leave your messages on LMS Q&A board.

Late Day Policy

All exercises are due at **1:59:59 pm** on the assigned due date. A grading penalty will be applied to late assignments. Any assignment turned in late will be penalized 50% per late day.

Plagiarism

No plagiarism will be tolerated. Also, NEVER use chatGPT. If the assignment is to be worked on your own, please respect it. If the instructor determines that there are substantial similarities exceeding the likelihood of such an event, he will call the two (or more) students to explain them and possibly to take an immediate test (or assignment, at the discretion of the instructor) to determine the student's abilities related to the offending work.