

# Playing with stty: Option Flipping

Homework Assignment #4

ELEC462-003 System Programming

(Instructor: Prof. Suh, Young-Kyoon)

**Due: 01:59:59pm, Thursday, April 6, 2023**

Modify `showtty.c` to flip the options that available in `stty`.

Write a version of `stty` that accepts four options:

- The first option "-FI" should flip the `input` flags sign that are **entered by user**.
- The second option "-FO" should flip the `output` flags sign.
- The third option "-FL" should flip the `local` flags sign that are **entered by user**.
- The fourth option "-A" should flip all options sign.

[Note] After applying "-A" option, no prompt will be shown on your terminal. So be cautious.

<b>&lt;Precautions!&gt;</b>
- Name your source code like: <code>hw4s&lt;StudentID&gt;.c</code> .
- Zip the code and name it like <code>hw4s&lt;StudentID&gt;.zip</code> .
Ex) If your student ID is 2022123456, your file name would be <code>hw4s2022123456.zip</code> .
Upload your zip file into LMS assignments tab.
<b>Constraints</b>
- " <i>option</i> " : option <u>on</u>
- " <i>-option</i> " : option <u>off</u>

## [Expected output including several examples]

```
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ gcc -o hw4_mystty hw4_mystty.c
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -FI inpck ixon
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk inpck -istrip -inlcr -igncr icrnl -ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk inpck -istrip -inlcr -igncr icrnl -ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -FI inpck ixon
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -F0
speed 9600 baud;
erase = ^?;kill = ^U;
-IGNBRK -BRKINT -IGNPAR -PARMRK -INPCK -ISTRIP -INLCR -IGNCR ICRNL IXON -IXOFF
OLCUC
ISIG ICANON ECHO ECHOE -ECHOK
$ ./HW4_MYSTTY
SPEED 9600 BAUD;
ERASE = ^?;KILL = ^U;
-IGNBRK -BRKINT -IGNPAR -PARMRK -INPCK -ISTRIP -INLCR -IGNCR ICRNL IXON -IXOFF
OLCUC
ISIG ICANON ECHO ECHOE -ECHOK
$
$ ./HW4_MYSTTY -F0
SPEED 9600 BAUD;
ERASE = ^?;KILL = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -FL isig
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
-isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
-isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -FL isig
speed 9600 baud;
erase = ^?;kill = ^U;
-ignbrk -brkint -ignpar -parmrk -inpck -istrip -inlcr -igncr icrnl ixon -ixoff
-olcuc
-isig icanon echo echoe -echok
yksuh@macan:~/courses/ELEC462/homeworks/hw4$ ./hw4_mystty -A
speed 9600 baud;
erase = ^?;kill = ^U;
IGNBRK BRKINT IGNPAR PARMRK INPCK ISTRIP INLCR IGNCR ICRNL -IXON IXOFF
OLCUC
-ISIG -ICANON -ECHO -ECHOE ECHOK
```

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## **Q & A**

If you have a question, then contact TA by email ([rinyo0126@knu.ac.kr](mailto:rinyo0126@knu.ac.kr)). 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.