

Students:

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17.5 Project 3: flipped

Name this program **flipped.c** - This project takes text (strings) and outputs the text flipped. The text will be printed right to left on right-justified lines of a given width. As an example, consider the input:

Hello there! General Kenobi... You are a bold one!

This text flipped is:

!eno dlob a era uoY ...iboneK lareneG !ereht olleH

Two sample executions of the program using *I/O redirection* are shown below. The stdout redirect is optional, but may be useful for testing. The last line of numbers is the column numbers and needs to be in your output. Your output should match the example output exactly. All input must be from **stdin** and all output must be to **stdout**.

Recall:

- **< filename** changes **stdin** to the specified file
- **> filename** changes **stdout** to the specified file
- When the end of the **stdin** file is reached, **feof(stdin)** will return **true**.

Example Execution

test1.txt	test2.txt
12 Hello there! General Kenobi... You are a bold one! <i>empty line</i>	24 Hello there! General Kenobi... You are a bold one! <i>empty line</i>

```
./a.out < test1.txt > output1.txt  
./a.out < test2.txt > output2.txt
```

Resulting **output1.txt**

```
!ereht olleH  
    lareneG  
    ...iboneK  
    a era uoY  
!eno dlob
```

```
123456789012
*empty line*
```

Resulting **output2.txt**

```
    lareneG !ereht olleH
dlob a era uoY ...iboneK
                        !eno
123456789012345678901234
*empty line*
```

Notes

1. The input will be the line width (int) followed by words (strings).
2. You can assume there will only be a single space between input strings.
3. No word (string of text) in the input will be longer than the line width.
4. The line width will be between 10 and 100 (inclusive).
5. There is no limit on the amount of words that will be in the text.
6. Make sure the generated input and output end with an empty line (a common standard).
7. Make sure that you include a header block of comments with your name and a brief overview of the program.
8. It is highly advised to use I/O redirection as done in the examples.

Helpful Functions

- Copy a string (src) to another char array (dest): `strcpy(char *dest, const char *src)`
- Append a string (src) to another char array (dest): `strcat(char *dest, const char *src)`

LAB
ACTIVITY

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Submission Instructions

Compile command

```
gcc flipped.c -Wall -o a.out -lm
```

We will use this command to compile your code

Upload your files below by dragging and dropping into the area or choosing a file on your hard drive.