CS 232
Lab Assignment 1
"Text Centering"

In this assignment, we will review file input and output, as well as string manipulation. In order to do this, we need to read in a text file (*input.txt*) that has the following format:

- The file contains an unspecified number of lines of ASCII text.
- Each line of the file is terminated by a new-line character.
- Each line is less than 60 characters long.
- Each line may contain alphanumeric characters, punctuation, and whitespace.

The following is a sample input file meeting these requirements:

```
| <-----------------   60 characters   ------------------> |
|                                                          |
|The black cat jumped over the brown fox.                  |
|The rain in   Spain    falls      mainly on     the plain.|
|    See                Spot                     run.       |
|                                                          |
```

Our task is to read in this file and remove any extra whitespace from between words, or from the beginning and ends of lines. In addition, we need to add enough whitespace to center each line on a display that is 60 characters wide. For instance, the output for the file above would be the following:

```
|                                                          |
|          The black cat jumped over the brown fox.        |
|         The rain in Spain falls mainly on the plain.     |
|                      See Spot run.                       |
|                                                          |
```

The final formatted text should be saved to an output file (*output.txt*).

The grading for the components of this assignment is described below.

Description	Percentage
Reading in from a text file.	10%
Removing extra whitespace.	30%
Centering the text correctly.	50%
Writing out to a text file.	10%

The full source code, input file(s), and output file(s) should be zipped into one file called *XLastname*Lab1.zip, where *X* is your first initial and *Lastname* is your last name.