CS417 Programming Assignment 3

Due: Wednesday, September 30, before midnight.

Late penalty: Thu 5%, Fri 10%, Sat/Sun/Mon 20%, Tue 50%, Wed 100%.

Synopsis

Write a program called `banner.py` that prints large text on the terminal.

Details

Your program should work with text, supplied through command-line arguments. It should join the arguments into a single message, with words separated by spaces. Then, it should print out the message, using `X`'s arranged in 5 × 7 blocks.

For example, if the user runs the program thus:

```
python banner.py Hello WORLD HOW byebye
```

The program should print this:

```
X   X        XX     XX                      X   X   XXX    XXXX    X
X   X         X      X                      X   X  X   X  X    X   X
X   X   XXX   X      X       XXX            X   X  X   X  X    X   X
XXXXX  X   X   X      X      X   X          X X X  X   X  XXXX     X
X   X  XXXXX   X      X      X   X          X X X  X   X  X  X     X
X   X  X       X      X      X   X          XX XX  X   X  X   X    X
X   X   XXXX   X      X       XXX            X   X   XXX   X    X  XXXXX


XXXX          X                      X
 X  X         X       X   X          X        X   X
 X  X         X       X   X   XXX     X        X   X    XXX
 X  X        XXX      XXXX  X   X  XXX         XXXX  X   X
 X  X        X   X       X  XXXXX  X   X          X  XXXXX
 X  X        X   X  X   X   X      X   X      X   X
XXXX         XXX    XXX     XXXX   XXX         XXX    XXXX
```
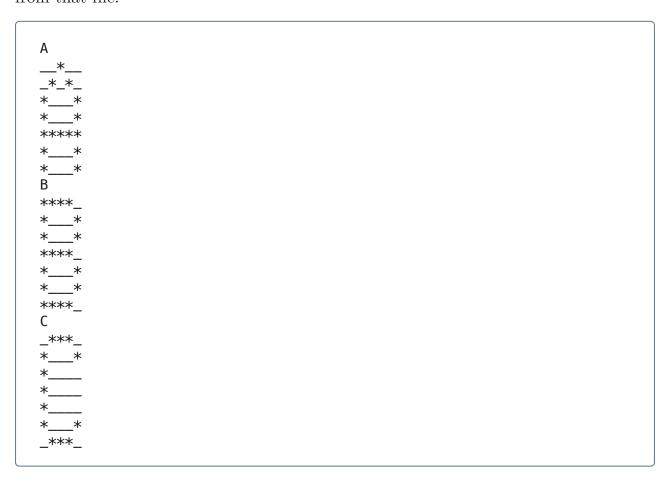
Notice the following details:

- Each character is displayed in a block of `X`'s and spaces. Each block is 5 wide,

and 7 high.
- In the output, there is a single blank line between each line of blocks. There are *two* blank columns between blocks.
- Each output line has at most 76 X's and spaces, or at most 10 blocks.
- If the text is longer than 10 characters, it should wrap to start a new line, ignoring word boundaries.

Blocks

I am providing a file with 5 × 7 blocks, called `matrix_5x7.txt`. Here is a sample from that file:

```
A
__*__
_*_*_
*___*
*___*
*****
*___*
*___*
B
****_
*___*
*___*
****_
*___*
*___*
****_
C
_***_
*___*
*____
*____
*____
*___*
_***_
```

Notice that each symbol is represented using 8 lines of the file: the first line has the symbol, and the next 7 lines have the block, using * and _ characters.

Special Characters

Warning: on Linux, OSX, and Windows, some characters have special meaning. For example, the asterisk * will be replaced by the names of all the files in the current directory! You may have to surround them with quotes:

```
python banner.py a "*" b
```

Character	Meaning
*	expand to all filenames
&	run program in background
>	send output to a file
<	read input from a file
|	send output to another program's input

Turn in your work

To turn you work in, go to mycourses.unh.edu, find CS417 and assignment #3, click the "Submit" button, and upload `banner.py`