

Algorithm

First, I need to ask for user input for the name of the file and the size of the left and right margins

```
Name = "What is the name of your text file?"
Left Margin = "What size do you want the left margin?"
Right Margin = "What size do you want the right margin?"
```

Create some test cases to make sure that the file is a text file and that it exists

```
Extension = after period check for extension
If (Extension != "txt"):
    Print("File needs to be a text file")
```

```
OpenName = open the file name to read
If (OpenName is not readable):
    Print("Check if file exists")
```

Create and write to an output file

```
Output = open("output", "w+")
```

Next, I need to store the contents of the file into a string and split them up into smaller strings by spaces

```
Contents = Name.read()
Split = Contents.split()
```

Create variables that will handle my spaces and lines from the file

```
Holdleft = holds the spaces for the left margin
Current = holds the current string/line that is going to be written
Leftover = holds the leftover words that will go on the next line
```

Make sure that the variable holding the spaces is in range from the size of the left margin to 12 (pt font)

```
For i in range of left margin:
    For j in range of right margin:
        Holdleft += " "
#Take a space away because of trailing spaces
Holdleft = Holdleft[:-1]
```

Print 0-9 8x in the output to show the 80 characters

```
Eightychars = "0-9" (8x)
Output.write(Eightychars)
```

Then, if there aren't any words to write on whatever line it is on it will first enter the spaces that are in the hold left variable

```
For item in split:
    If item is at a certain position or 0:
        Output.write(Holdleft)
```

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So as to not exceed the right margin we need to left justify and compare to the right

If (the length of Holdleft, Current, Split[item], and space) is more than (80 – right margin * 12):

Create a newline in output – Output.write("\n")
Add/Write more spaces – Output.write(holdleft)
Reset Current so it can hold a new line

Finding where the punctuation is so there will be 2 blanks between the sentences

If (word at a position other than 0):

If (Split[word] has a punctuation (.,?,!) not at the end):

HoldLeft = add two spaces for split[item]

Else:

HoldLeft = only need one space for split[item]

Finally, we can write the rest to the output and close it then read from it

Output.write(what ever is left)

Output.close()

Print(open("output", "r"))