1. In this program, first understanding how to user the file input stream and file output stream was one of the first problems I faced. I spent over half an hour before getting the code from the File I/O link on the website to do what it was supposed to do.

Once, while I was examining my output file, I forgot to scroll down so that I thought that less than half of the input was processed, while in reality all of the input was processed up until the final line.

My first 10 hours of development were wasted because after I got stuck I wrote a guideline of functions I needed to implement, and I restructured my entire program after that.

When I ran my essay through my code, it crashed my program; it took me 3 hours to figure out it was because it had Unicode characters.

1. Program Design

My function assumes first that there is nothing in the input, and it will return 0 in that case. Then incrementally, as different types of characters are in the input file, such as \n, or spaces, or letters or numbers, different flags get triggered, and different parts of my progra spring into life. The style i use is to get character by character, figure out what kind of character i have, and then do the appropriate processing. Characters that are part of words get stored into an array, which will be output as soon as the word ends. When I meet the output condition, I check if i need to output spaces before my word, and if the word and spaces will fit on the line. After i output a word, i set a trigger saying how many spaces i will need after the word. If i have a word greater than or equal to the linelength, i immediately output the part of the word i built up, and then i set wholeWordLength to that length. If my wholeWordLength exceeds the length of the line, i know i will eventually return 1. if i only have words that equal the line length, i won't be returning 1. to deal with paragraphs, i set up a counter that counts every newline i see, up until the next word. If i see two or more newlines between words, i know i need a new parargarph.

1. Test Cases

For each of my test cases, I run my program with lineLength 10, 40, and compare the results to the results given by the rearranger on the website.

The test the professor provided:

It always does seem to me that I am doing more work than

I should do. It is not that I object to the work, mind you;

I like work: it fascinates me. I can sit and look at it for hours.

I love to keep it by me: the idea of getting

rid

of it nearly breaks my heart.

You cannot give me too much work; to accumulate work has almost become

a passion with me: my study is so full of it now, that there is hardly

an inch of room for any more.

The next test has all combinations of words and hyphens I could come up with

Do you nope the alphabet?

ABC-D-EFG ABD------EFG

HI-JKLK-M AB-DE--------FG

ABCDEG

--QWERTY- WAASD------

NOPQRS

TUVWXYZ

This test looks like something normal but then the end of the text is constructed to be weird

Hello World! I will attempt to write a paragraph that resembles English. antidisestablishmantarianism. Inconspicuous. Sesquipedalian. lilliputian. pathological. methodology. computer science.

This is the beginning of the second line of the test.

We begin the third line of the test.

We skipped the fourth line of the test; this is the fifth line, and it is a new paragraph.

I fill in stuff and maybe we can make a third paragraph.

This is the beginning of the third parargaph. I have one long three-part-word to test the dashes.

These so-called dashes will give me lots of trouble. DASHES-------A---A--A-A-A-A---A---A-A-A---A- A-A- -A

A

AA0--A-A-A

AA0---

A-A

-

-

This test I used for testing cases where the lineLenght was equal to word lengths, so I tested with lineLength 7 and 4 and 6. (7 failed)

123456.

7891 23456.

123456.

7891 23456. 123456.

7891 23456. 123456.

7891 23456. 123456.

7891 23456. 123456.

7891 23456. 123456.

7891 23456.

This test has the beginning, end, and middle are completely weird, and I am failry sure I used every key on my keyboard

-0----

`````

qq - - --- one day, Nopeolean Bonaparte was crossing the alps on his iphone, when he caused an AVALANCHEEEEEE!!!!!!!!

Je Napoleon was like, "OMGZ!~!@#%#!@$!@#$" E GADS. My le Freeeench acccent is not helping le me with this le test case. so then,

the legendary mystic zombie warrior from the past, the spirited and sickly ZOMBILY Dickenson rose from the dead, and challenged Nopeolean to battle with

her army of undead min ions. MINIONS```````! HOW SIMPLY DASH--------------ING! QQQQQQQQQQQQQ. So then, since Nopeolean could not resist a battle to the death with such

an esteemed warrior, he ACTIVATED HIS TRAP CARD, AND BY SENDING HIS IPHONE TO LE GRAVEYARD, HE SUMMONED A BLUE EYES WHITE DRAGON!!!!!!!

BLUE EYES ATTACK! WHITE LIGHTNING!!!!!

ZOMBILY Dickenson was completely and utterly destroyed by the hologram generated in conjunction with a children's card game, and Nopeolean leveled up!

He put his mastery points into the Offence mastery tree and bought some extra MPen ru-

Suddenly, Nopeolean was stabbed from behind by.... ZOMBILY Dickenson?!?!??!?!!? HOW COULD IT BE!?!?!? SHE WAS JUST Destroyed!

OH NO. WE FORGOT SHE WAS A ZOMBIE 11112!@!!!1!11`````--------! -

Is this the end for Nopeolean Bonaparte?

Next time on The Epic of Nopeolean, Nopeolean Bonaparte has just been run through the chest by Zombily Dickenson, and he only has 3 days left of his hundred days to cross the alps and change his destiny!-

Can he put a stop to this deizen of the undead, surpass the Alps themselves, and prove that everyone opens up to Nopeolean? Find out next time in Part THREE!

0--A-A-A

AA0---

A

-A

-

-0----

`````

-

I test a file with only whitespace characters in it, and I test a file which is completely empty.

I test an essay from high school, which is real and somewhat more interesting test case. I also test lineLength = 450.

On the Present Future

The concept of the future has always been a frightening one. The future is always changing, unpredictable; no one can predict the future, not for an individual nor even the human race. However, this fact has never stopped anyone from trying. Early in the 20th century, two esteemed writers, George Orwell and Alduous Huxley, both made extremely differing predictions about the future. When the year 1984 passed, the world sighed in relief because Orwells year had come and gone. In the year following, a book was published by a social critic named Neil Postman. In his novel, Postman hoped to remind the world to remain vigilant, as Huxleys world where thought itself would become obsolete was becoming more and more evident. Whatever Postman saw for the future, however, still hardly applies to today. Instead, today in Spring 2009, we have more to fear from the shadow of Big Brother than we do from some distant, self inflicted end of progress.

The idea that the human race as a whole would be overcome by "irrelevance" and "distraction" is not an unprecedented one. According to an AOL and Salary.com survey, the average American wastes about two hours of work per day, not including lunch or breaks. Given the eight hour workday, this is a large amount of time spent on the internet or chatting with co-workers that could be spent productively. Perhaps Postman is right to fear the end of thought and human progress. DJ McHale, author of the Pendragon series, adds fuel to the fire with his own prediction of humanitys future. The series is about a boy named Bobby Pendragon and his adventures through time, space, and even dimensions. In the fourth novel, Bobby explores a territory called Veelox, where the technology has evolved sufficiently so that people can spend their entire lives living in virtual worlds personalized to their own desires. Over time, the territory fell into chaos as people neglected their real lives in reality, falling instead for their own fantasies. McHales territory represents the ultimate human "distraction," and one that could very well happen in due time.

Due time, however, is not something that humans can spend eternity preparing for. What matters now is just that - the here and now, where the dangers of Big Brother are deeply evident. Two of Big Brothers policies are especially evident in todays world: ongoing surveillance and control of information. Consider todays widespread surveillance technology. Nowadays, at least in modernized cities, there are cameras everywhere, watching everything that goes on at any time. Many available technologies, while not widely implemented, are capable of amazing feats of facial recognition and audio identification. Just as in Orwells 1984, people are being watched, and their privacy, slipping away - and the public does not seem to care either.

As for the issue of information, one needs not look far to realize that our governments are hiding things from us. In the 1970s, the New York Times released an secret internal study to the American public. This study was generally known as the Pentagon Papers, and they detailed how several presidential administrations made major policy decisions without consulting the public or Congress. Had such information been made public, the past five decades may have been completely different.

In the end, the current government controls over society cannot be underestimated. Big Brother has been sitting here with us all this time, and we must take notice. While Huxleys Brave New World presents a grave new fear, we cannot dwell on what has yet to happen. We cannot dwell, but must certainly act, because Orwells future, our future, is NOW.

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Period 6

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