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CS 220

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PEX 1 Turn In Document

**Ethics Paper Summary:**

The ethics paper is an excerpt from a start of a book that summarizes many philosophies and compares their foundations by listing them. The majority of the listed beliefs put a different spin on whether right or wrong is derived from human feeling and emotion, is inherent and objective or comes from a higher power. Each belief has nuances that differentiate them from others, but at their core, they ask the question of where the ideas of right and wrong come from. To finalize the comparison, the author moves into an analysis of the golden rule and provides 6 commandments he/she believes are important foundational moral attitudes for children to learn. This adds both a bit of the author’s personal perspective and an example of how to apply the ideas of consistency discussed earlier. The author makes an argument and displays how to use it conscientiously and logically. I believe this was required reading meant to get us thinking about what we feel is right and wrong, and why we think so. This comes at a critical time in the course when we are moving in to the first large, individual effort graded assignment where people may come into an ethical dilemma. In sum, the ethics article demonstrates that no matter how students come to their moral standing, they should be consistent, rational, and treat others the way they wish to be treated.

**Explanation of the First Line of PEX1.h:**

The first line of the PEX1.h fiel “#pragma once” serves as an include guard but uses less space and prevents the file from being included more than once in a compilation.

**Error Report:**

1. Compiler error on line 199 of PEX1.c where the file pointer was declared and initialized but the dereference operator was left off of the variable name causing a null value to be assigned to a file which cannot be done. A simple fix of adding the dereference operator fixed the problem.
2. Compiler warning on line 112 of PEX1.c stating that the int i is used without being initialized. This is a problem because it is immediately used to access an element of an array and we do not know what is at the memory address allocated to i. To fix this I initialized i to 0.
3. Compiler error on line 37 of WordCloud.c where the if statement attempts to make a Boolean expression but uses a single equals sign. I fixed it by adding an equals sign.
4. Logic error in the NumUniqueWords function. The while loop does not properly increment i. It may cause infinite recursion and does not meet the intended purpose. I fixed it by initializing i to 0 and changing the loop so it iterates i instead of repeatedly setting it to 1.
5. RemovePunctionationMakeUpperCase says in the comments that the function is making all the letters lowercase but it should read uppercase. I changed the word in the comments to avoid confusion.
6. Run time error where the buffer size was too small on line 29 of PEX1.c so I changed the buffer size in PEX1.h to size 1000.
7. Run time error at line 127 of PEX1.h where the malloc used the size of an int instead of a WordCount which made the size of the memory allocated too small. I changed it to sizeof(WordCount).
8. Logic error on line 273 where the buffer is just a pointer so it is replacing the same index of the array over and over again and the function fails to properly check if the word is already in the array. I used strcpy instead so it does not copy the address but rather the actual word.
9. Compiler error on 252 where the function does not always return a value. I included a return false at the end of the function to deal with extraneous cases.
10. Logic error in wordcloud.c on line 25 where it uses the “a” operator to append to the .html file which would cause the usafa.txt and ethics.txt word clouds to be built on top of each other. I changed it to “w” so it will write instead.

**Documentation Statement:**

Notes to self:

Line 133 of pex1.c- added a (WordCount\*) infront of malloc