

File and streams

Aim

In this assignment you will learn how to write a basic C++ program that can open a text file, read from the text file and count the number of letters for each word¹. You will also calculate the average length of all the words in the text file.

Reading instructions

- How to open a file: `std::ifstream`
- How to read from a file: `operator>>`

Assignment

Write a program that reads the content of a text file and outputs some statistics about the text inside the file. The program must count the number of words and calculate the average length of all the words in the text. The program must print the shortest and the longest word in the file. If the file is empty then a warning must be printed.

Example

Note: No text file is given, you should find your own text file to apply this program to (maybe the source code itself?).

There are 4711 words in the file.
The shortest word was "I" with 1 character(s).
The longest word was "halfpennyworths" with 15 character(s).
The average length was 5.50 character(s).

¹A word in this assignment is any combination of non-whitespace characters.