NORMALISATION EXERCISE

Hi guys, the purpose of this exercise is to gauge the relative strength of each team. So this is sort of a competition :D, but not too serious, so have fun. The exercise will proceed as follows:

08:00 - Read through the exercise.

- Make sure you understand what is required from you.

- Set up your IDE's.

- Discuss and plan how you are going to complete the exercise, divide the work.

09:30 - Ready, steady go.

12:00 - Done. Quick demo then enjoy your holiday.

For the exercise you will receive three files, 1 java file, 1 c source and 1 c header file. Your task is then to create a java program which will process the files and calculate the following information from these files:

- Automatically detect the file type (from its extension)
- Run the source file through astyle (http://astyle.sourceforge.net/) to format the file.
    - Java files formatted to style=java
    - C files formatted to style=allman
- Parses the source files and calculate the:
    - Number of lines of code
    - Number of statements
    - Number of classes
    - Number of functions / methods
    - Avg number of statements / class
    - Avg number of statements / function
    - Lines of comments
        - A line containing code and comments counts as a line for both.
    - Calculate the cyclometric complexity (no short cuts by using external programs). https://en.wikipedia.org/wiki/Cyclomatic_complexity
- A very simple GUI to display the above results.

You must deliver (and will be evaluated on):

- The compiled java bytecode.
- Your source code for the above.
- A user manual for your program.
- Your code must be documented (source code comments).
- Quick demonstration to me of the results of the program.
- The correctness of your results.

Good luck!