

# THE JAVA PROGRAMMING LANGUAGE

## CLEANING STREAMS

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### Exercise

Define a pair of text streams, one for reading (a wrapper class that inherit from class `Reader`) and the other for writing (a wrapper class that inherit from class `Writer`), which will clean out the text of unnecessary whitespace characters (in terms of spaces and tabs). Cleaning rules:

- every sequence of whitespace characters in the middle of the text will be replaced by a single space;
- spaces and tabs at the end of a line will be removed;
- spaces and tabs at the beginning of a line will be replaced by a sequence of spaces of the same length (replace every tab character adequate amount of spaces).

The length of tabbing position should be one of the parameters of the streams (by default the value can take 8).

Finally write a pair of programs: the first program should read a text from the specified file using the input cleaning stream and write the results to the standard output, and the second one should read a text from the standard input and write the results to the specified file using the output cleaning stream.

### Remark

The source/destination file is handled as a text data with specified character set.

### Requirements

The stream definitions should be placed in a package `tools`.