

Assignment 3

SPM course a.a. 23/24

April 30, 2024

Counting words: a map-reduce computational pattern on a stream of text files

Implement a parallel map-reduce version of the Word-Count-seq.cpp code provided in Assignment 2 using **FastFlow** and considering the file /opt/SPMcode/A2/filelist.txt as the first input argument. Evaluate the parallel version's performance by varying the grainSize parameter to the following values: 0 (default), 1000, and 10000.

Once you have the parallel code, **email it to the teachers along with a brief document** (PDF format, max 4 pages) describing how to compile and execute the code, the performance figures obtained, comments, problems faced, solutions adopted, etc. You can use the spmcluster.unipi.it frontend node or the spmnuma.unipi.it machine (or both) for the tests.

Deadline: Two weeks. However, no later than the end of the lectures (end of May 2024)