Programming exercise Ericsson In-Game Communication

Task description

The task is divided into 2 levels, where level one is mandatory and level 2 is a bonus level.

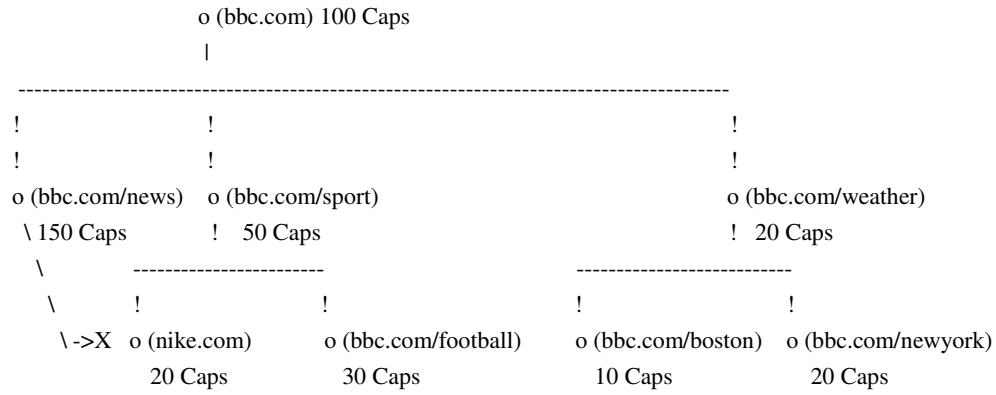
Level 1

Make a program/script that counts those capital letters that can be seen in a web browser on a webpage including all web pages linked from that web page down to a depth of n. The search shall stop at level n and the aggregated capital count shall be reported. If a search branch hits a URL (webpage) which has been searched before, this search branch shall be terminated.

Level 2

Make the searches in multiple branches concurrent/parallel and thread safe.

Example



In the example above a search with a depth of 3 is performed on head www.bbc.com. The search has a maximum of 4 parallel searches, there is a link to the same URL (nike.com) from both bbc.com/news and bbc.com/sport which causes the search in the bbc.com/news branch to terminate in order not to count capital letters on www.nike.com twice. This search example resulted in 400 Capital letters

Program input/output

The program/script shall have three input parameters:
- Head URL
- Depth (n)
- Result file name

And an output printout stating the resulting number of Capital letters as well as a file containing each searched URL and the number of capitals for that URL.

Eg.
> CountCaps www.bbc.com 3 myfile.txt
> "There were 400 Caps"
> cat myfile.txt
bbc.com 100
bbc.com/news 150
bbc.com/sport 50
.....
etc.

Environment/programming language/tools/open source

- You may choose to use any programming- or script language
- The program/script shall run on either Windows or Linux
- You may use existing tools, freeware or open source to complete the task.

Reporting

You have two days to complete the exercise. You should deliver the program/script source code, the binary as well as a 1 page description describing dependencies, how to build, limitations and how you have solved the problem.

Questions

If you have any questions - do not hesitate to call:
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