

Homework 4 of CSC I0600 Fundamental Algorithms, Fall 2020

given November 20, 2020, due December 14

The aim of this homework is to implement the Rabin-Karp algorithm to test a long string for any of a large number of forbidden substrings. You create a program that has two command-line arguments, the first is the name of the file containing the long string, the second is the name of the file containing all forbidden substrings.

The file containing the forbidden substrings has in the first line two numbers, the length of each forbidden substring, followed by the number of forbidden substrings; then those forbidden substrings follow, one per line. The `\n` is not part of the forbidden substring. The forbidden substrings consist only of alphabetic characters.

Your program checks the file (the first argument) for those forbidden substrings; if it finds none, it reports that, otherwise it reports each forbidden substring it finds by its position (the byte where it starts), and the number of the substring, both counts starting from 0.