ASSIGNMENT3: Making a Regex Engine

DUE DATE: 11:59 PM, 12th November (Thursday night)

Problem Statement:

For this assignment, you can continue working on Sir's code to build up the rest of the regular expression engine.

The engine should support the following:

1) Support greedy and non-greedy
2) Support the following macros:
    a) [ ] (inclusion only)
        i) a-z
        ii) A-Z
        iii) 0-9
        iv) Individual characters and numbers
    b) ?
    c) +
    d) *
    e) \d
    f) \w

Once you're done with implementation of character classes [ ], you can use the concepts taught in class to implement e and f macros

Input format:

The first line specified is the input text on which pattern matching should be performed. The max length of the input text will be 4000. M is a valid integer <=100. The next M lines are strings of max length 1000 which are patterns to be matched against the input text given.

<Text>
<M>
<Patterns…>

Output format:

Each line of the output should indicate if the ith pattern was successful or not using 0 (unsuccessful) or 1 (successful). **If there was a match print the start index and the end index in the same line.**

Sample Input:
Hello there. This is a sample text for the input. abcd9
3
the
abc[a-z][0-9]
9+a+

Sample Output:
1 6 8
1 50 54
0

Files to be submitted:
A3_<SRN>.c
A3_README_<SRN>.txt

You can ask doubts at: Doubt Clarifications

Submission link will be shared later

DO NOT COPY/SHARE CODE.