

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.