**ASSIGNMENT3: Making a Regex Engine**

**Problem Statement:**

The engine should support the following:

1. Support greedy and non-greedy
2. Support the following macros:
   1. [ ] (inclusion only)
      1. a-z
      2. A-Z
      3. 0-9
      4. Individual characters and numbers
   2. ?
   3. +
   4. \*
   5. \d
   6. \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