PATTERN MATCHING WITH REGULAR EXPRESSIONS AND PARSING STRUCTURED DATA – LAB 05

5C 5080 – SOFTWARE CONSTRUCTION

WIAJYAWARDHANA W.A.H.A.

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QUESTION 01

01.

```java
//import necessary packages
import java.util.Scanner;
import java.util.regex.Matcher;
import java.util.regex.Pattern;
public class Regularexp {
    public static void main(String[] args){
        Scanner scanner = new Scanner(System.in);
        while (true) {
            //Read Regex from user
            System.out.println("Enter the regex : ");
            String readRegex = scanner.next();
            //Create the pattern
            String patternString = "A";
            Pattern pattern = Pattern.compile(patternString,Pattern.CASE_INSENSITIVE);
            //Read the input string to check the match
            Matcher matcher = pattern.matcher(readRegex);
//Create a matcher
            boolean found = false;
            int j =0;
            while (matcher.find()) {
                System.out.println("I found the text "+ patternString + " starting at index "+
matcher.start()+ " and ending at index "+matcher.end()+".");

//Print as: I found the text "j" starting at index 0 and ending at index 1.
                found = true;
            }
            if(!found){
                System.out.println("Could not found.");
//Print
            }
        }
    }
}
```
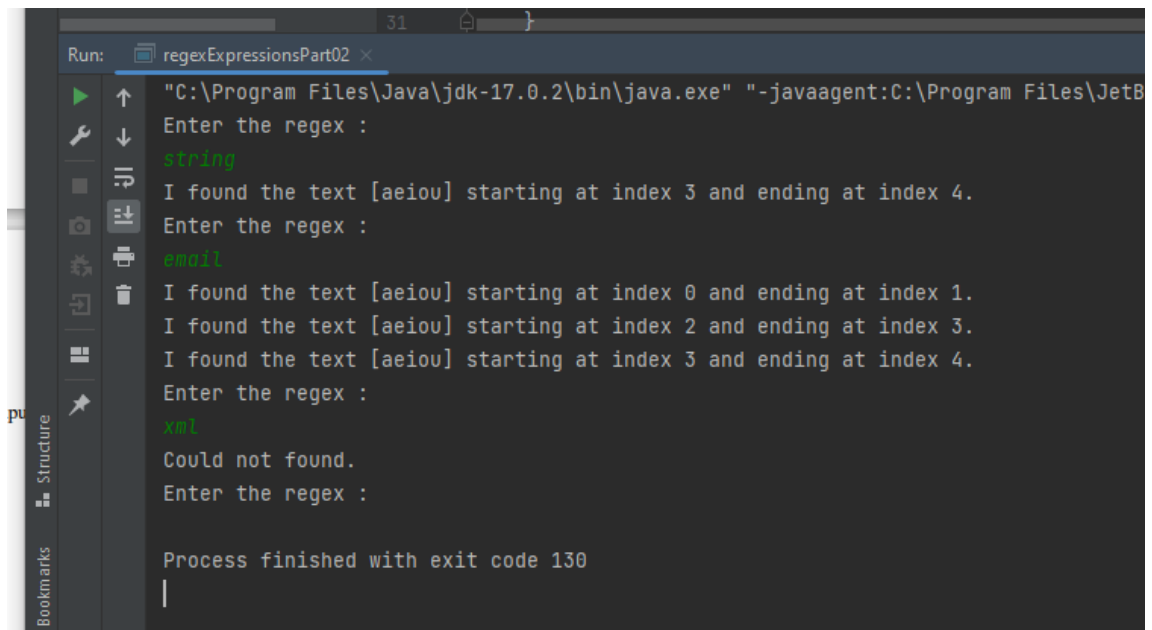
```
Run:    Regularexp ×
    "C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\Intelli
    Enter the regex :
    Regular Expressions in Java
    I found the text A starting at index 5 and ending at index 6.
    Enter the regex :
    Could not found.
    Enter the regex :
    Could not found.
    Enter the regex :
    I found the text A starting at index 1 and ending at index 2.
    I found the text A starting at index 3 and ending at index 4.
    Enter the regex :
    Matcher
    I found the text A starting at index 1 and ending at index 2.
    Enter the regex :
    String
    Could not found.
    Enter the regex :
    |
```

02.

I.


```
Run:    regexExpressionsPart02 ×
    "C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\
    Enter the regex :
    k
    I found the text Kr* starting at index 0 and ending at index 1.
    Enter the regex :
    kr
    I found the text Kr* starting at index 0 and ending at index 2.
    Enter the regex :
    krrrrr
    I found the text Kr* starting at index 0 and ending at index 6.
    Enter the regex :
    atjsfa
    Could not found.
    Enter the regex :
    krrrijayw
    I found the text Kr* starting at index 0 and ending at index 4.
    Enter the regex :
    krrrasuuskrr
    I found the text Kr* starting at index 0 and ending at index 4.
    I found the text Kr* starting at index 9 and ending at index 12.
    Enter the regex :
    |
```
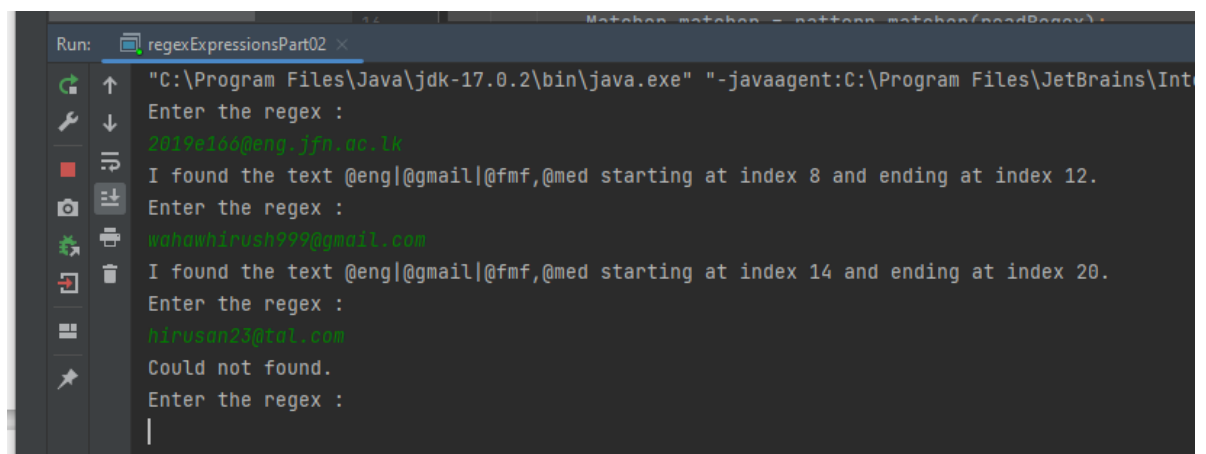
II.


```
Run:    regexExpressionsPart02 ×
    "C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetB
    Enter the regex :
    string
    I found the text [aeiou] starting at index 3 and ending at index 4.
    Enter the regex :
    email
    I found the text [aeiou] starting at index 0 and ending at index 1.
    I found the text [aeiou] starting at index 2 and ending at index 3.
    I found the text [aeiou] starting at index 3 and ending at index 4.
    Enter the regex :
    xml
    Could not found.
    Enter the regex :

    Process finished with exit code 130
```

III.


```
Run:    regexExpressionsPart02 ×
    "C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\Int
    Enter the regex :
    2019e1óó@eng.jfn.ac.lk
    I found the text @eng|@gmail|@fmf,@med starting at index 8 and ending at index 12.
    Enter the regex :
    wahawhirush999@gmail.com
    I found the text @eng|@gmail|@fmf,@med starting at index 14 and ending at index 20.
    Enter the regex :
    hirusan23@tal.com
    Could not found.
    Enter the regex :
```