Java Regex

Problem Statement

Write a class called *myRegex* which will contain a string pattern. You need to write a regular expression and assign it to the pattern such that it can be used to validate an IP address. Use the following definition of an IP address:

IP address is a string in the form "A.B.C.D", where the value of A, B, C, and D may range from 0 to 255. Leading zeros are allowed. The length of A, B, C, or D can't be greater than 3.

Some valid IP address:

```
000.12.12.034
121.234.12.12
23.45.12.56
```

Some invalid IP address:

```
000.12.234.23.23
666.666.23.23
.213.123.23.32
23.45.22.32.
I.Am.not.an.ip
```

In this problem you will be provided strings containing any combination of ASCII characters. You have to write a regular expression to find the valid IPs.

Just write the myRegex class, and we will append your code after the following piece of code automatically before running it:

```
import java.util.regex.Matcher;
import java.util.regex.Pattern;
import java.util.Scanner;

class Solution{

    public static void main(String []args)
    {
        Scanner in = new Scanner(System.in);
        while(in.hasNext())
        {
            String IP = in.next();
            System.out.println(IP.matches(new myRegex().pattern));
        }

    }
}
```

(The class written by you *MUST NOT* be public)

Sample Input

```
000.12.12.034
121.234.12.12
23.45.12.56
00.12.123.123123.123
122.23
Hello.IP
```

Sample Output

```
true
true
true
false
false
false
```