

Toggle String

Question

For a given String consisting of uppercase and lowercase English alphabets. Write a scala program to change the case of each alphabet in this String. That is, all the uppercase letters should be converted to lowercase and all the lowercase letters should be converted to uppercase.

Sample Input: abcdE

Sample Output: ABCDe

Program

```
Main.scala x ToggleStringTest.scala x build.sbt x
1  import java.util.InputMismatchException
2  import scala.io.StdIn.readLine
3
4  class ToggleString {
5
6      //This method is used to convert uppercase to lowercase and vice versa
7      def toggleString(inputString: String): String = {
8          var afterToggleString:String=""
9          for (index <- 0 until < inputString.length) {
10             val asciiValue: Int = inputString.charAt(index)
11
12             //converting uppercase to lowercase
13             if (asciiValue >= 65 && asciiValue <= 90) {
14                 val toUpperCase: Char = (asciiValue + 32).asInstanceOf[Char]
15                 afterToggleString+=toUpperCase
16             }
17
18             //converting lowercase to uppercase
19             else if (asciiValue >= 97 && asciiValue <= 122) {
20                 val toLowerCase: Char = (asciiValue - 32).asInstanceOf[Char]
21                 afterToggleString+=toLowerCase
22             }
23         }
24         return afterToggleString
25     }
26 }
27
```

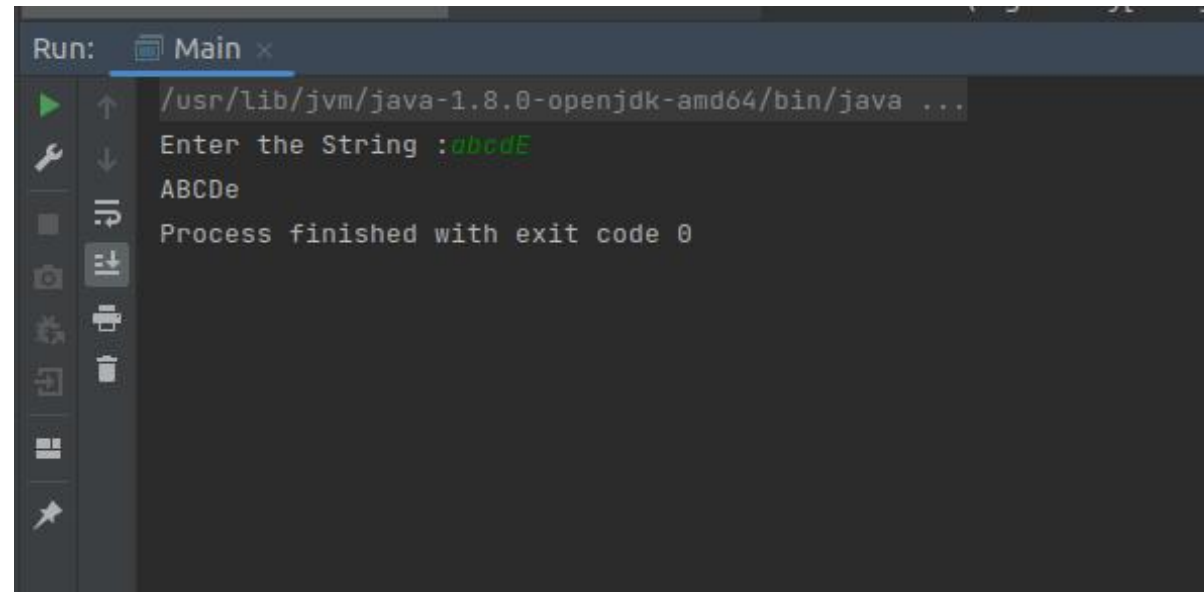
Program

```
28 //singleton object
29 ▶ object Main {
30 ▶   def main(args: Array[String]): Unit = {
31     val obj = new ToggleString
32     val inputString = readLine("Enter the String :")
33     try {
34       if (inputString.isEmpty)
35         throw new NullPointerException
36     }
37     catch {
38       case ex: NullPointerException=> {
39         print("Input by User is " + ex.getMessage)
40       }
41     }
42     val toggleString:String=obj.toggleString(inputString)
43     print(toggleString)
44   }
45 }
```

Test Case

```
Main.scala x ToggleStringTest.scala x build.sbt x
1  import org.scalatest.flatspec.AnyFlatSpec
2
3  class ToggleStringTest extends AnyFlatSpec {
4    val obj = new ToggleString
5    it should "match with input Manish" in {
6      assert(condition = "mANISH" == obj.toggleString(inputString = "Manish"))
7    }
8    it should "match with other input sCaLA" in {
9      assert(condition = "ScAla" == obj.toggleString(inputString = "sCaLA"))
10   }
11 }
```

Output



The screenshot shows the 'Run' console of an IDE. The title bar indicates the current run configuration is 'Main'. The console output is as follows:

```
/usr/lib/jvm/java-1.8.0-openjdk-amd64/bin/java ...  
Enter the String :abcdE  
ABCDe  
Process finished with exit code 0
```

The input 'abcdE' is shown in green, and the output 'ABCDe' is shown in black. The console also displays the full Java command path and the successful exit of the process.

THANK YOU