

write a java Program to print smallest and biggest possible palindrome word in a given string

```
import java.util.*;
```

```
public class SmallestBiggestPalindrome
```

```
{
```

```
    //isPalindrome() checks whether a string is palindrome or not
```

```
    public static boolean isPalindrome(String a){
```

```
        boolean flag = true;
```

```
        //Iterate the string forward and backward and compare one character at a time
```

```
        //till middle of the string is reached
```

```
        for(int i = 0; i < a.length()/2; i++){
```

```
            if(a.charAt(i) != a.charAt(a.length()-i-1)){
```

```
                flag = false;
```

```
                break;
```

```
            }
```

```
        }
```

```
        return flag;
```

```
    }
```

```
    public static void main(String[] args){
```

```
        Scanner sc=new Scanner(System.in);
```

```
        String string = sc.nextLine();
```

```
        String word = "", smallPalin = "", bigPalin="";
```

```
        String[] words = new String[100];
```

```
        int temp = 0, count = 0;
```

```

//Converts the given string into lowercase
string = string.toLowerCase();

//Add extra space after string to get the last word in the given string
string = string + " ";

for(int i = 0; i < string.length(); i++){
    //Split the string into words
    if(string.charAt(i) != ' '){
        word = word + string.charAt(i);
    }
    else{
        //Add word to array words
        words[temp] = word;

        //Increment temp
        temp++;

        //Make word an empty string
        word = "";
    }
}

//Determine the smallest and biggest palindromes in a given string
for(int i = 0; i < temp; i++){
    if(isPalindrome(words[i])){

```

```

count++;

//When first palindromic word is found
if(count == 1)

    //Initialize smallPalin and bigPalin with first palindromic word
    smallPalin = bigPalin = words[i];

//Compare smallPalin and bigPalin with each palindromic words
else{

    //If length of smallPalin is greater than next palindromic word
    //Store that word in smallPalin
    if(smallPalin.length() > words[i].length())
        smallPalin = words[i];

    //If length of bigPalin is less than next palindromic word
    //Store that word in bigPalin
    if(bigPalin.length() < words[i].length())
        bigPalin = words[i];
}
}

if(count == 0)

    System.out.println("No palindrome is present in the given string");
else{

    System.out.println("Smallest palindromic word: " + smallPalin);
}

```

```
System.out.println("Biggest palindromic word: " + bigPalin);
```

```
}
```

```
}
```

```
}
```

The screenshot shows a web browser window with the URL `jdoodle.com/online-java-compiler/`. The page displays a Java program that finds the smallest and biggest palindromic words from a list of words. The program uses a `Scanner` to read input and a loop to check for palindromes. The output shows "wow" as the smallest palindromic word and "kayak" as the biggest.

```
1 import java.util.*;
2 public class SmallestBiggestPalindrome
3 {
4     //isPalindrome() checks whether a string is palindrome or not
5     public static boolean isPalindrome(String s){
6         boolean flag = true;
7         //Iterate the string forward and backward and compare one character at a time
8         //till middle of the string is reached
9         for(int i = 0; i < s.length()/2; i++){
10             if(s.charAt(i) != s.charAt(s.length()-i-1)){
11                 flag = false;
12                 break;
13             }
14         }
15         return flag;
16     }
17
18     public static void main(String[] args){
19         Scanner sc=new Scanner(System.in);
20         String string = sc.nextLine();
21         String word = "", smallPalin = "", bigPalin="";
22         String[] words = new String[100];
23         int temp = 0, count = 0;
24
25         //Converts the given string into lowercase
26         string = string.toLowerCase();
27
28         //Add extra space after string to get the last word in the given string
29         string = string + " ";
30
31         for(int i = 0; i < string.length(); i++){
32             //Split the string into words
33             if(string.charAt(i) != ' '){
34                 word = word + string.charAt(i);
35             }
36             else{
37                 //Add word to array words
38                 words[temp] = word;
39                 //Increment temp
40                 temp++;
41                 //Make word as empty string
42                 word = "";
43             }
44         }
45
46         //Find smallest and biggest palindromic words
47         for(int i = 0; i < words.length; i++){
48             if(isPalindrome(words[i]) && words[i].length() < smallPalin.length() || smallPalin.length() == 0){
49                 smallPalin = words[i];
50             }
51             if(isPalindrome(words[i]) && words[i].length() > bigPalin.length()){
52                 bigPalin = words[i];
53             }
54         }
55
56         System.out.println("Smallest palindromic word: " + smallPalin);
57         System.out.println("Biggest palindromic word: " + bigPalin);
58     }
59 }
```

Execute Mode, Version, Inputs & Arguments

CommandLine Arguments

JDK 11.0.4

Interactive

Execute

Result

compiled and executed in 22.54 sec(s)

```
wow you own kayak
Smallest palindromic word: wow
Biggest palindromic word: kayak
```