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

Description:  
Algorithm  
main()

STEP 1: START  
STEP 2: DEFINE String string = "Wow you own kayak "  
STEP 3: DEFINE word = " ", smallPalin = " ", bigPalin = " "  
STEP 4: DEFINE String words[]  
STEP 5: SET temp = 0, count = 0  
STEP 6: CONVERT the string into lowercase  
STEP 7: string = string + " "  
STEP 8: SET i=0. REPEAT STEP 9 to STEP 11 UNTIL i<string.length()  
STEP 9: SPLIT the string into words.  
STEP 10: IF(string.charAt(i) != ' ') then  
word = word + string.charAt(i)  
else  
words[temp]= word  
temp = temp+1  
word = " "  
STEP 11: i=i+1  
STEP 12: SET i=0. REPEAT STEP 13 to STEP 17 UNTIL i<temp  
STEP 13: IF( isPalindrome(words[i]) ) then  
count = count + 1  
goto STEP 14  
STEP 14: IF(count==1)  
smallPalin = bigPalin = words[i]  
else go to STEP 15 and STEP 16  
STEP 15: IF length of smallPalin is greater than the length of words[i] then  
smallPalin = words[i]  
STEP 16: IF length of bigPalin is lesser than the length of words[i] then  
bigPalin = words[i]  
STEP 17: i=i+1  
STEP 18: IF(count==0) then PRINT "No palindrome is present in the given string "  
else  
PRINT smallPalin, bigPalin  
STEP 19: END

isPalindrome(String a)

STEP 1: START STEP 2: SET flag = true STEP 3: SET i=0. REPEAT STEP 4 to STEP 5 UNTIL i<a.length()/2 STEP 4: IF(a.charAt(i) != a.charAt(a.length()-i-1) then  
flag = false  
break STEP 5: i=i+1 STEP 6: RETURN flag STEP 7: END

**Code:**

public class Main

{

public static boolean isPalindrome(String a){

boolean flag = true;

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){

String string = "Wow you own kayak";

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

String[] words = new String[100];

int temp = 0, count = 0;

string = string.toLowerCase();

string = string + " ";

for(int i = 0; i < string.length(); i++){

if(string.charAt(i) != ' '){

word = word + string.charAt(i);

}

else{

words[temp] = word;

temp++;

word = "";

}

}

for(int i = 0; i< temp; i++){

if(isPalindrome(words[i])){

count++;

if(count == 1)

smallPalin = bigPalin = words[i];

else{

if(smallPalin.length() > words[i].length())

smallPalin = words[i];

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);

}

}

}

**Output:**

