1.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);

}

}

}

