import java.util.Scanner;

public class Main {

public static boolean palindrome(String a) {

int b = a.length();

for (int i = 0; i < b / 2; i++) {

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

return false;

}

}

return true;

}

public static void swap(String str1,String str2){

str1=str1+str2;

str2=str1.substring(0,str1.length()-str2.length());

str1=str1.substring(str2.length());

System.out.println("after swapping");

System.out.println(str1);

System.out.println(str2);

}

public static void reverseString(String str3){

char [] arr=str3.toCharArray();

int j=arr.length-1;

for(int i=0;i<arr.length/2;i++,j--){

char temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

System.out.println("reversed string is : " + new String(arr));

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter string a: ");

String a = scanner.nextLine();

System.out.println("palindrome or not");

if (palindrome(a)) {

System.out.println("Palindrome");

} else {

System.out.println("Not a palindrome");

}

System.out.println("str1 : ");

String str1=scanner.nextLine();

System.out.println("str2 : ");

String str2=scanner.nextLine();

System.out.println("swapping 2 strings without using third variable");

swap(str1,str2);

System.out.println("reverse a string");

System.out.println("str3:");

String str3=scanner.nextLine();

reverseString(str3);

System.out.println("count the words in a string : ");

System.out.println("str4 : ");

String str4=scanner.nextLine();

char [] str5=str4.toCharArray();

for(char str6:str5){

System.out.print(str6+" ");

}

System.out.println();

int count = 1;

System.out.println("the number of words in string is : ");

for(char str7:str5){

if(str7==' '||str7=='\t'||str7=='\n'){

count=count+1;

}

}

System.out.println(count);

scanner.close();

}

}