import java.util.Scanner;

public class assignment {

public static void main(String[] args) {

String rString="";

Scanner scanner = new Scanner(System.***in***);

System.***out***.println("Enter a string to check:");

String inputString = scanner.nextLine();

int length = inputString.length();

for ( int i = length - 1 ; i >= 0 ; i-- )

rString = rString + inputString.charAt(i);

if (inputString.equals(rString))

System.***out***.println("Input string is a symmetric.");

else

System.***out***.println("Input string is not a symmetric.");

}

}

public class assignment2 {

static class Pair {

int min;

int max;

}

static Pair getMinMax(int arr[], int n) {

Pair minmax = new Pair();

int i;

if (n == 0) {

minmax.max = arr[1];

minmax.min = arr[0];

return minmax;

}

if (arr[0] > arr[1]) {

minmax.max = arr[0];

minmax.min = arr[1];

} else {

minmax.max = arr[1];

minmax.min = arr[0];

}

for (i = 0; i < n; i++) {

if (arr[i] > minmax.max) {

minmax.max = arr[i];

} else if (arr[i] < minmax.min) {

minmax.min = arr[i];

}

}

return minmax;

}

public static void main(String args[]) {

int arr[] = { 1, 5, 100, 4, 3, 5, 2, 3, 7, 3, 200 };

int arr\_size = 11;

Pair minmax = *getMinMax*(arr, arr\_size);

System.***out***.printf("\nMinimum element is %d", minmax.min);

System.***out***.printf("\nMaximum element is %d", minmax.max);

}

}

import java.util.Stack;

public class assignment3

{

static int getMaxArea(int hist[], int n)

{

Stack<Integer> s = new Stack<>();

int max\_area = 0;

int tp;

int area\_with\_top;

int i = 0;

while (i < n)

{

if (s.empty() || hist[s.peek()] <= hist[i])

s.push(i++);

else

{

tp = s.peek();

s.pop();

area\_with\_top = hist[tp] \* (s.empty() ? i : i - s.peek() - 1);

if (max\_area < area\_with\_top)

max\_area = area\_with\_top;

}

}

while (s.empty() == false)

{

tp = s.peek();

s.pop();

area\_with\_top = hist[tp] \* (s.empty() ? i : i - s.peek() - 1);

if (max\_area < area\_with\_top)

max\_area = area\_with\_top;

}

return max\_area;

}

public static void main(String[] args)

{

int hist[] = { 1, 5, 9, 4, 3, 2, 3 ,7 ,3 ,8};

System.***out***.println("Maximum area is " + *getMaxArea*(hist, hist.length));

}

}