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MEDIUM

Max Score: 30 Points

Rahul And Minimum Subarray

Rahul is a programming enthusiast. He is currently learning about arrays/lists. One day his teacher asked him to solve a very difficult problem.

The problem was to find the length of the smallest subarray(subarray is a contiguous part of an array/list) from the given array/list `ARR` of size `N` with its sum greater than a given value `x`. If there is no such possible subarray return 0.

Example:

Given an `ARR`: [1, 2, 21, 7, 6, 12] and a number `x`: 23.

The length of the smallest subarray is 2 as the subarray is [21, 7].

Note: Here are multiple subarrays whose sum is greater than `x` such as [1, 2, 21] or [7, 6, 12] but we have to choose the minimum length subarray.

Input Format:

The first line will contain two integers `N` and `x` that denote the size of the `ARR` and the minimum value of the substring to be created from the array `ARR` respectively.

The second line contains `N` space-separated integers `ARR[i]`, the elements of array `ARR`.

Output Format:

Return an integer denoting the length of the minimum subarray whose sum is greater than `x`.

Example 1:

Input:

```
5 11
9 1 5 3 9
```

Output:

2

Explanation:

The length of the minimum subarray is 2. The subarray is [3, 9] as the sum is 12 which is greater than the given value 11.

Example 2:

Input:

```
4 8
5 1 2 1
```

Output:

4

Explanation:

The length of the minimum subarray is 4. The subarray is [5,1, 2, 1] as the sum is 9 which is greater than the given value 8.

Constraints:

$1 \leq N \leq 10^3$

$1 \leq X \leq 10^9$

$0 \leq A[i] \leq 10^9$

Topic Tags

Sliding Window

Arrays

My code

```
// in java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
    java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int x=s.nextInt();
        int arr[]=new int [n];
        for(int i=0;i<n;i++)
            arr[i]=s.nextInt();
        int min=n;
        for(int i=0;i<n;i++){
            int sum=0;
            for(int j=i;j<n;j++)
            {
                sum=sum+arr[j];
                if(sum>x)
```

```
        {
            int t=j-i+1;
            if(min>t)min=t;
        }
    }
    if(min==n)System.out.print("0");
    else System.out.print(min);
}
```