You are given a string of positive numbers in no specific order, delimited by commas. Your job is to return a string of ranges extrapolated from the input, in ascending order. If the input string contains any characters other than positive integers and commas, the string "undefined" should be returned.

**Example**  
For str = "5,10,11,20,21,12,13,100,1,2,3", the output should be  
extrapolateRanges(str) = "1-3,5,10-13,20-21,100".

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] string str**

String of positive integers, delimited by commas.

*Guaranteed constraints:*  
1 ≤ str.length < 105.

* **[output] string**

A string of comma delimited ranges or "undefined". A range can be a single integer, or an inclusive list of integers specified in the following format: {min}-{max} (e.g. 5-9).

<https://codefights.com/challenge/s3Q9xavEiy3XZz5Js/solutions>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static List<string> summaryRanges(int[] nums)

{

int size\_n = nums.Length;

List<string> res = new List<string>();

if (0 == size\_n) return res;

for (int i = 0; i < size\_n; )

{

int start = i, end = i;

while (end + 1 < size\_n && nums[end + 1] == nums[end] + 1) end++;

if (end > start) res.Add((nums[start]).ToString() + "-" + (nums[end]).ToString());

else res.Add((nums[start]).ToString());

i = end + 1;

}

return res;

}

static string extrapolateRanges(string str)

{

string[] elems = str.Trim() .Split(',');

foreach (string e in elems)

{

foreach (char ch in e)

{

if (!char.IsDigit(ch))

{

return "undefined";

}

}

}

int[] enteros = Array.ConvertAll(elems, e => int.Parse(e)).Distinct().ToArray();

Array.Sort(enteros);

foreach (int elem in enteros)

{

if (elem <= 0) return "undefined";

}

// string dogCsv = string.Join(",", dogs.ToArray());

return string.Join(",", summaryRanges(enteros).ToArray());

}

static void Main(string[] args)

{

//int[] nums = { 5, 10, 11, 20, 21, 12, 13, 100, 1, 2, 3 };

// int[] nums = { 1, 2, 3 };

//string nums = "1,2,3";

string str = "1,1,2,4,3,5,6,5,2";

Console.WriteLine(extrapolateRanges(str ));

Console.ReadLine();

}

}

}