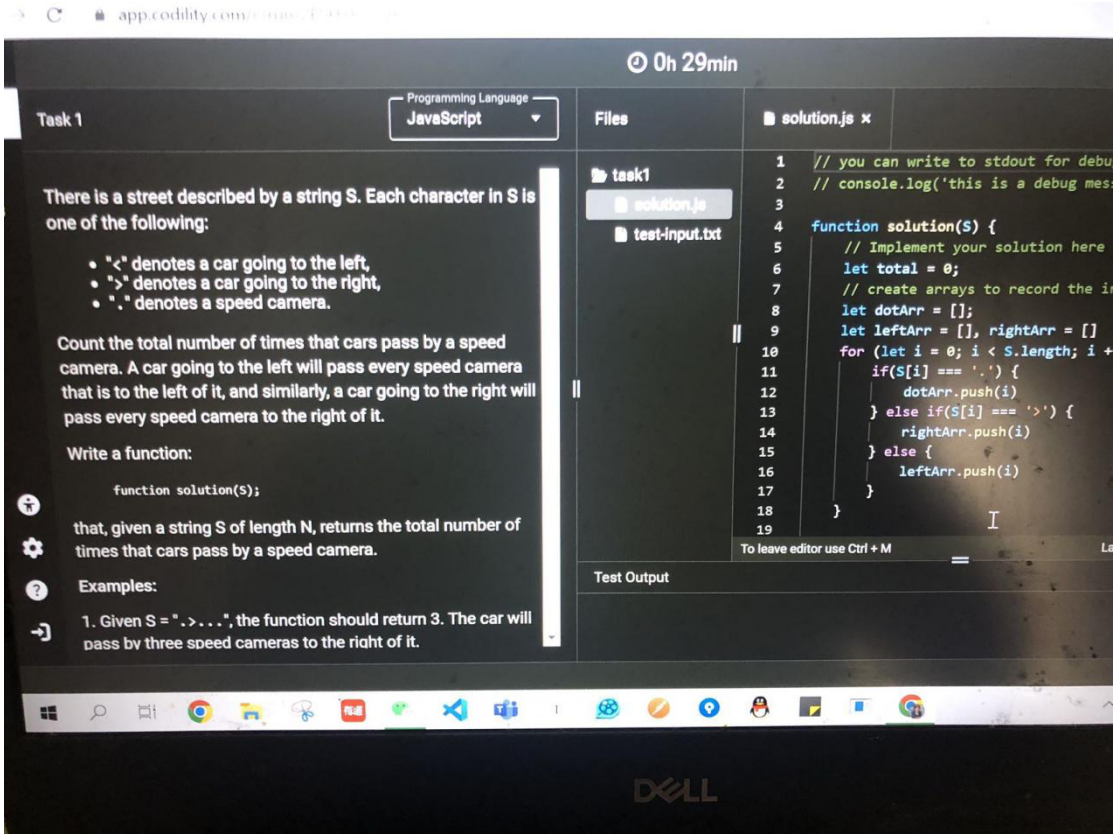
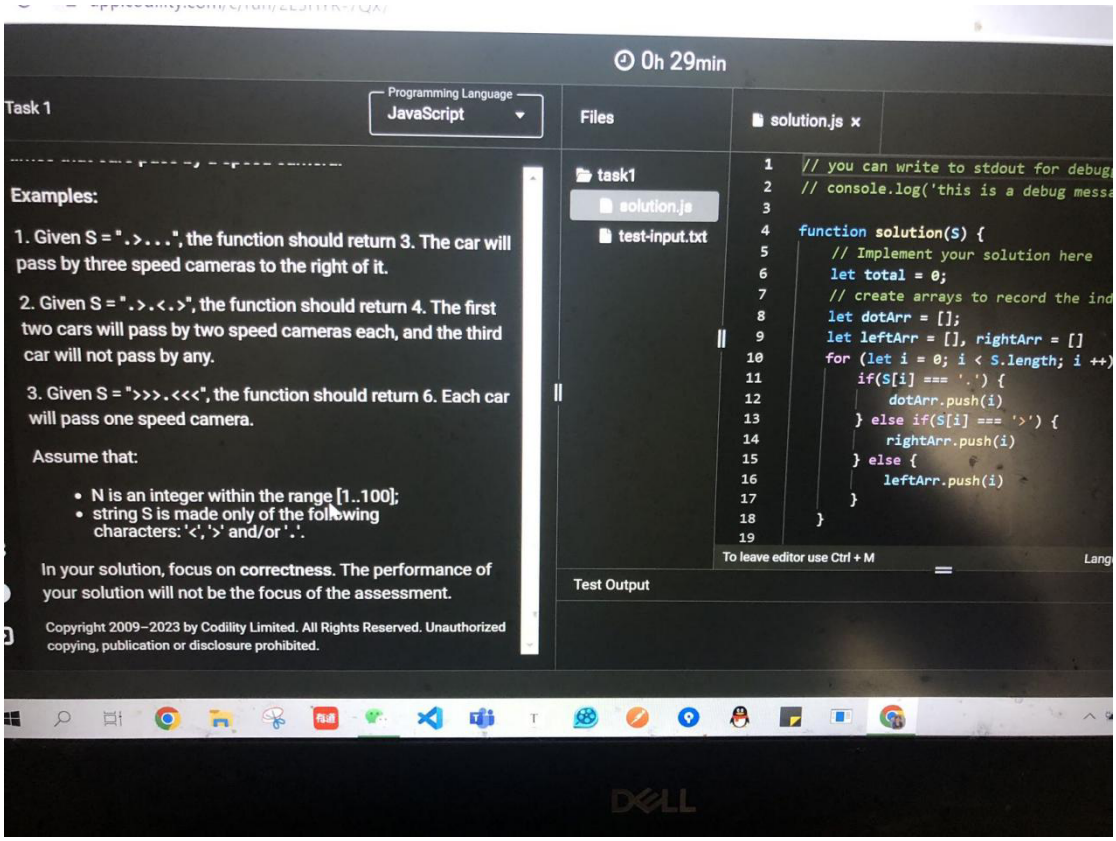
Task 1:


0h 29min
Task 1
Programming Language
JavaScript
Files
solution.js
task1
solution.js
test-input.txt
There is a street described by a string S. Each character in S is one of the following:
"<" denotes a car going to the left,
">" denotes a car going to the right,
"." denotes a speed camera.
Count the total number of times that cars pass by a speed camera. A car going to the left will pass every speed camera that is to the left of it, and similarly, a car going to the right will pass every speed camera to the right of it.
Write a function:
function solution(S);
that, given a string S of length N, returns the total number of times that cars pass by a speed camera.
Examples:
1. Given S = ".>...", the function should return 3. The car will pass by three speed cameras to the right of it.
// you can write to stdout for debu
// console.log('this is a debug mes
function solution(S) {
// Implement your solution here
let total = 0;
// create arrays to record the i
let dotArr = [];
let leftArr = [], rightArr = []
for (let i = 0; i < S.length; i +
if(S[i] === '.') {
dotArr.push(i)
} else if(S[i] === '>') {
rightArr.push(i)
} else {
leftArr.push(i)
}
}
To leave editor use Ctrl + M
Test Output


0h 29min
Task 1
Programming Language
JavaScript
Files
solution.js
task1
solution.js
test-input.txt
Examples:
1. Given S = ".>...", the function should return 3. The car will pass by three speed cameras to the right of it.
2. Given S = ".>.<.>", the function should return 4. The first two cars will pass by two speed cameras each, and the third car will not pass by any.
3. Given S = ">>>.<<<", the function should return 6. Each car will pass one speed camera.
Assume that:
N is an integer within the range [1..100];
string S is made only of the following characters: '<', '>' and/or '.'.
In your solution, focus on correctness. The performance of your solution will not be the focus of the assessment.
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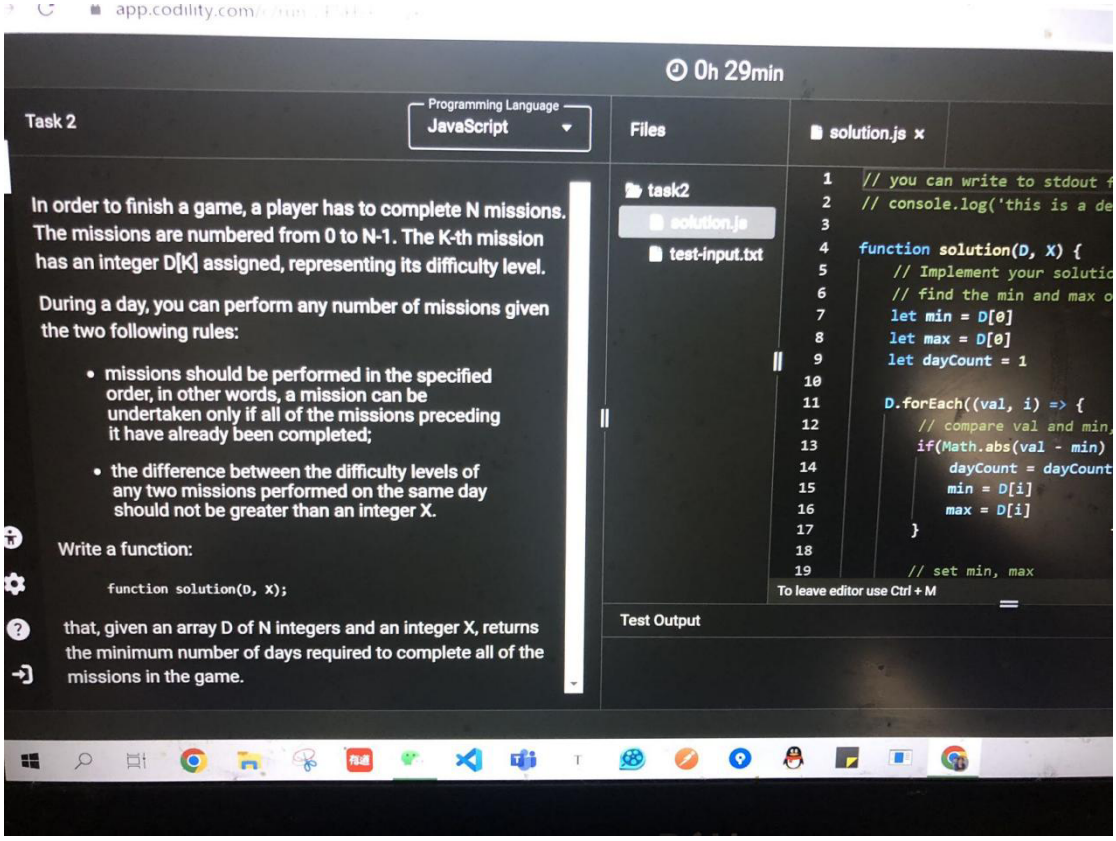
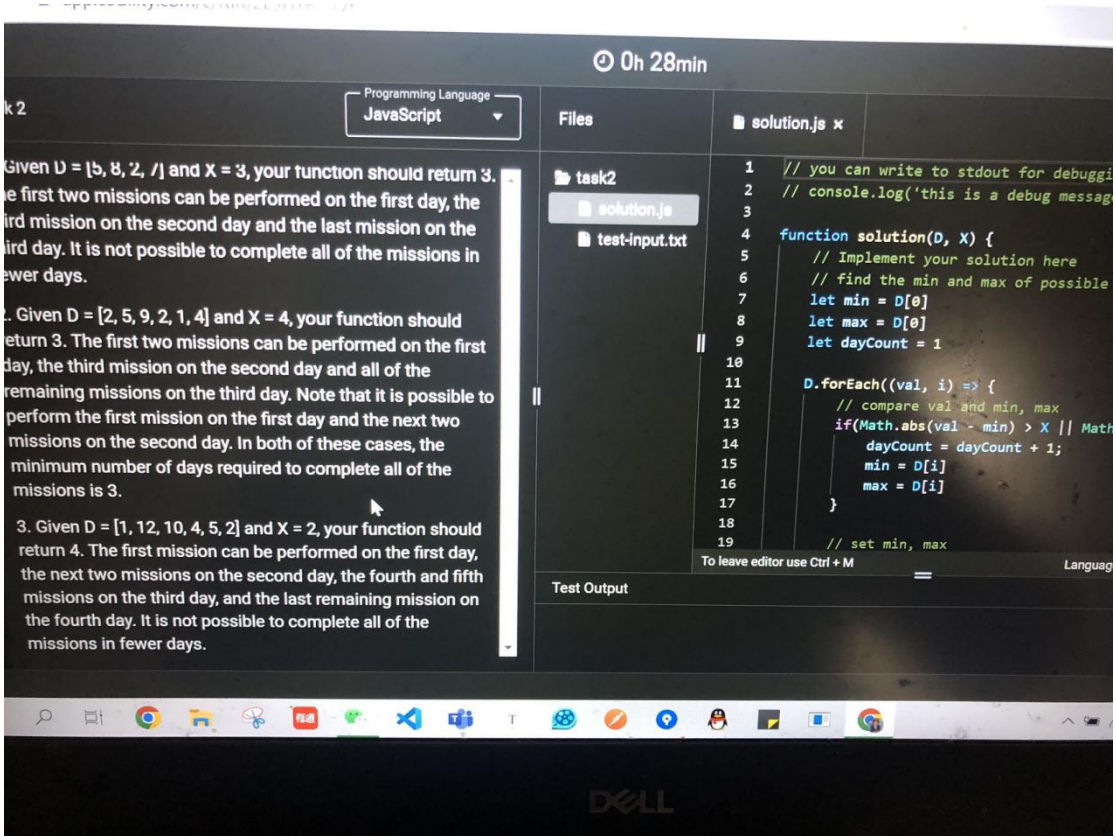
// you can write to stdout for debug
// console.log('this is a debug messa
function solution(S) {
// Implement your solution here
let total = 0;
// create arrays to record the ind
let dotArr = [];
let leftArr = [], rightArr = []
for (let i = 0; i < S.length; i ++)
if(S[i] === '.') {
dotArr.push(i)
} else if(S[i] === '>') {
rightArr.push(i)
} else {
leftArr.push(i)
}
}
To leave editor use Ctrl + M
Test Output

Task 2:


app.codility.com
0h 29min
Task 2
Programming Language
JavaScript
Files
solution.js
task2
solution.js
test-input.txt
In order to finish a game, a player has to complete N missions. The missions are numbered from 0 to N-1. The K-th mission has an integer D[K] assigned, representing its difficulty level.
During a day, you can perform any number of missions given the two following rules:
missions should be performed in the specified order, in other words, a mission can be undertaken only if all of the missions preceding it have already been completed;
the difference between the difficulty levels of any two missions performed on the same day should not be greater than an integer X.
Write a function:
function solution(D, X);
that, given an array D of N integers and an integer X, returns the minimum number of days required to complete all of the missions in the game.
// you can write to stdout
// console.log('this is a de
function solution(D, X) {
// Implement your solutio
// find the min and max o
let min = D[0]
let max = D[0]
let dayCount = 1
D.forEach((val, i) => {
// compare val and min,
if(Math.abs(val - min)
dayCount = dayCount
min = D[i]
max = D[i]
}
// set min, max
To leave editor use Ctrl + M
Test Output


0h 28min
k 2
Programming Language
JavaScript
Files
solution.js
Given D = [5, 8, 2, 7] and X = 3, your function should return 3.
e first two missions can be performed on the first day, the
ird mission on the second day and the last mission on the
ird day. It is not possible to complete all of the missions in
ewer days.
. Given D = [2, 5, 9, 2, 1, 4] and X = 4, your function should
eturn 3. The first two missions can be performed on the first
day, the third mission on the second day and all of the
remaining missions on the third day. Note that it is possible to
perform the first mission on the first day and the next two
missions on the second day. In both of these cases, the
minimum number of days required to complete all of the
missions is 3.
3. Given D = [1, 12, 10, 4, 5, 2] and X = 2, your function should
return 4. The first mission can be performed on the first day,
the next two missions on the second day, the fourth and fifth
missions on the third day, and the last remaining mission on
the fourth day. It is not possible to complete all of the
missions in fewer days.
task2
solution.js
test-input.txt
// you can write to stdout for debuggi
// console.log('this is a debug messag
function solution(D, X) {
// Implement your solution here
// find the min and max of possible
let min = D[0]
let max = D[0]
let dayCount = 1
D.forEach((val, i) => {
// compare val and min, max
if(Math.abs(val - min) > X || Math
dayCount = dayCount + 1;
min = D[i]
max = D[i]
}
// set min, max
To leave editor use Ctrl + M
Languag
Test Output

Task 3:

Task 3

Programming Language: JavaScript

Select language: English

Your room is being decorated. On the largest wall you would like to paint a skyline. The skyline consists of rectangular buildings arranged in a line. The buildings are all of the same width, but they may have different heights. The skyline shape is given as an array A whose elements specify the heights of consecutive buildings.

For example, consider array A such that:

```
A[0]  = 1
A[1]  = 3
A[2]  = 2
A[3]  = 1
A[4]  = 2
A[5]  = 1
A[6]  = 5
A[7]  = 3
A[8]  = 3
A[9]  = 4
A[10] = 2
```

The shape specified by this array is represented by the figure below.

All changes saved

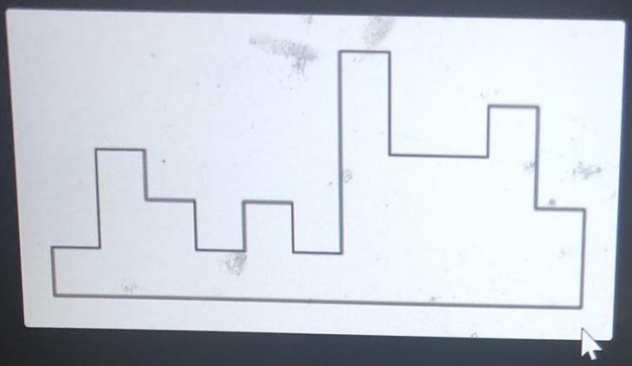
Task 3

Programming Language: JavaScript

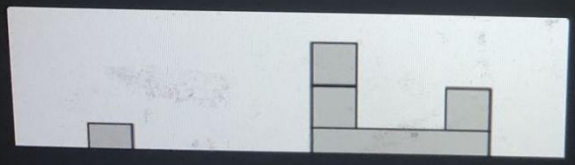
Select language: English

Files

The shape specified by this array is represented by the figure below.



You would like to paint the skyline using continuous horizontal brushstrokes. Every horizontal stroke is one unit high and arbitrarily wide. The goal is to calculate the minimum number of horizontal strokes needed. For example, the above shape can be painted using nine horizontal strokes.



Test Outpu

All changes saved

Task 3

Programming Language: JavaScript

Select language: English

Files

task

Starting from the bottom, you can paint the skyline in horizontal stripes with 1, 3, 2, 2, 1 strokes per respective stripe.

Write a function:

```
function solution(A);
```

that, given a non-empty array A consisting of N integers, returns the minimum number of horizontal brushstrokes needed to paint the shape represented by the array.

The function should return −1 if the number of strokes exceeds 1,000,000,000.

For example, given array A as described above, the function should return 9, as explained above.

On the other hand, for the following array A:

```
A[0] = 5
A[1] = 8
```

Test Output

All changes saved

Task 3 | JavaScript | English | Files

On the other hand, for the following array A:

```
A[0] = 5
A[1] = 8
```

the function should return 8, as you must paint one horizontal stroke at each height from 1 to 8.

For the following array:

```
A[0] = 1
A[1] = 1
A[2] = 1
A[3] = 1
```

the function should return 1, as you can paint this shape using a single horizontal stroke.

Write an **efficient** algorithm for the following assumptions:

- N is an integer within the range [1..100,000];
- each element of array A is an integer within the range [1..1,000,000,000].

task3
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tes

Test Output

ll changes saved