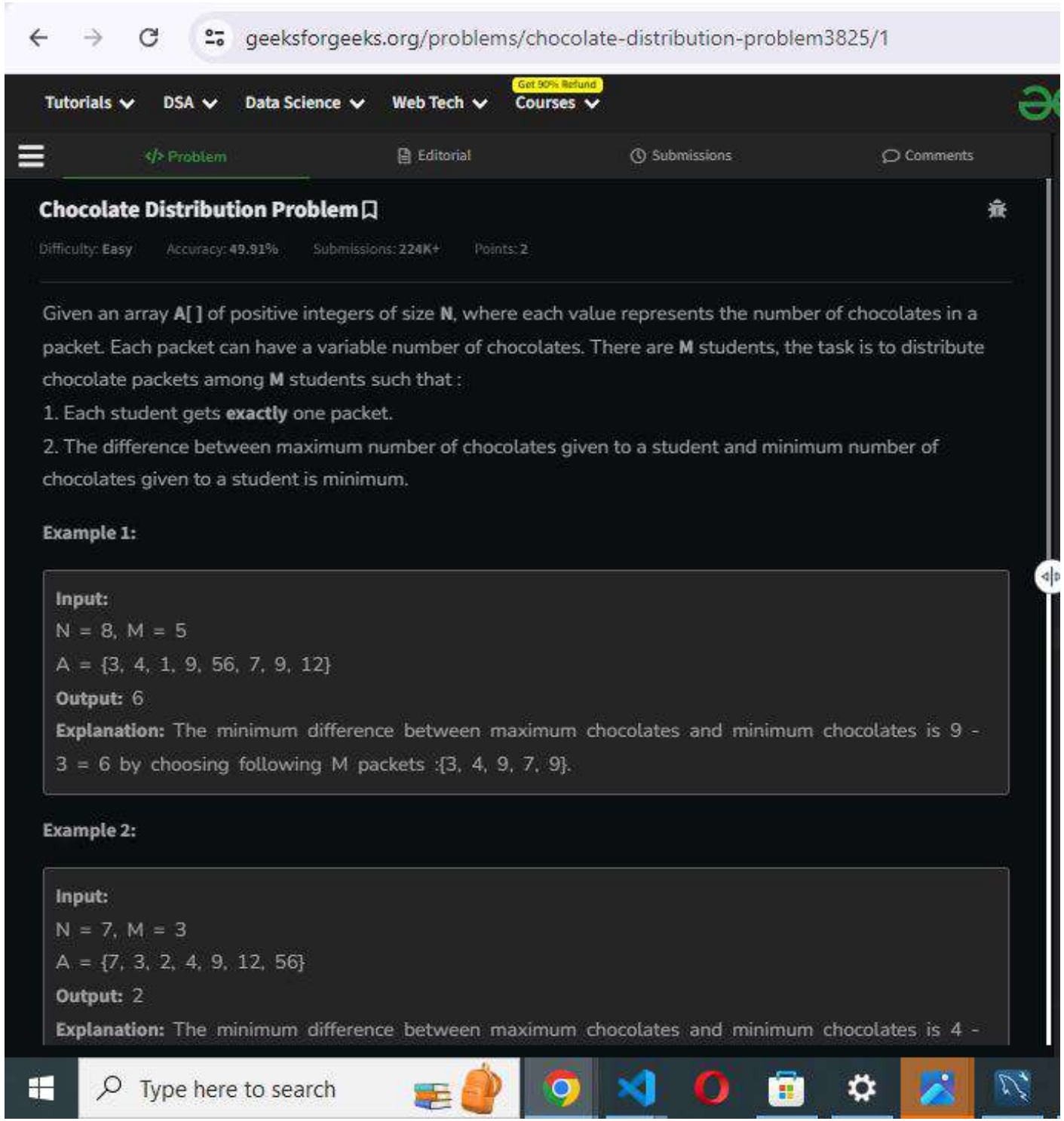
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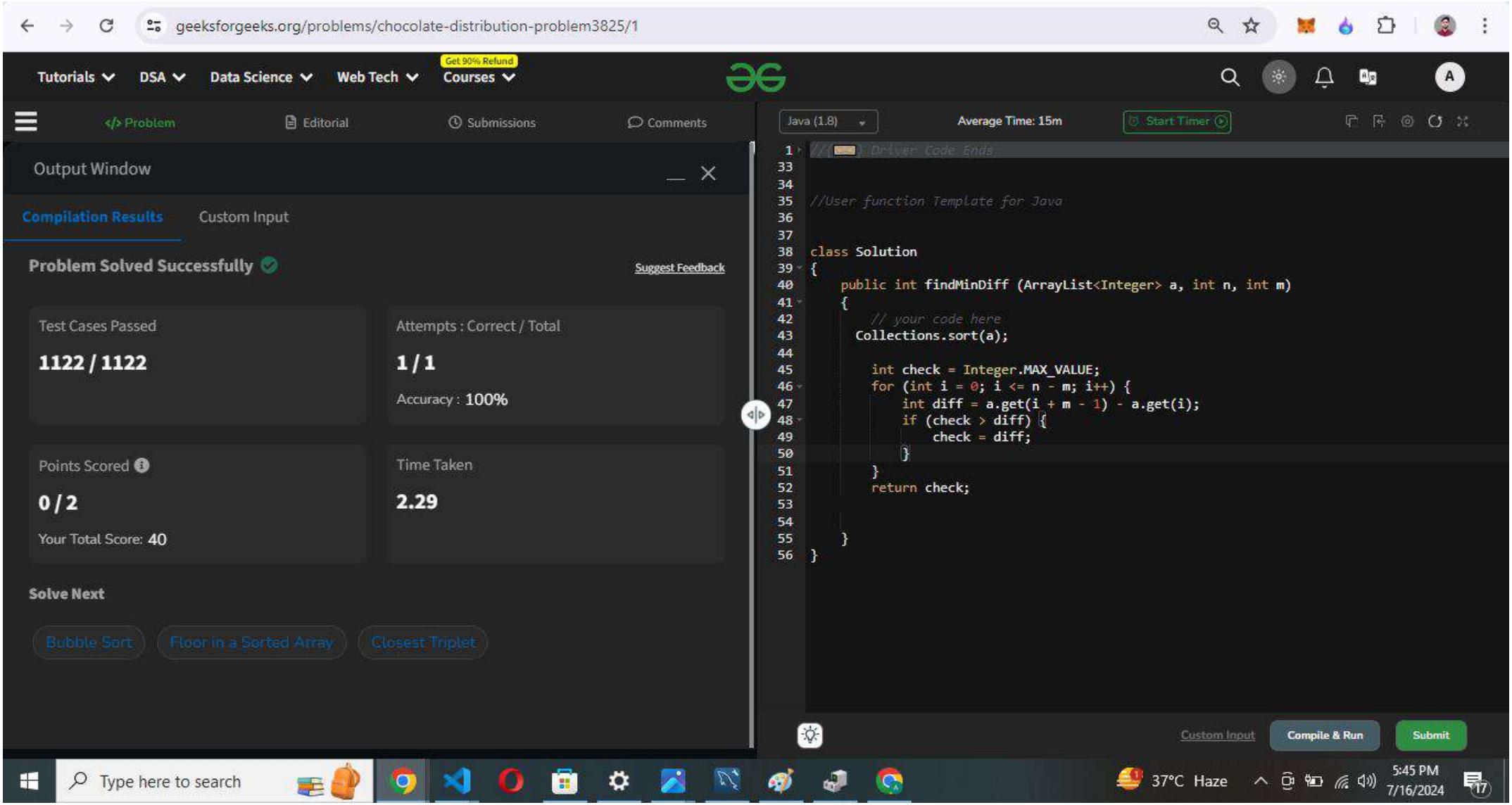
Chocolate Distribution Problem
Difficulty: Easy
Accuracy: 49.91%
Submissions: 224K+
Points: 2
Given an array A[ ] of positive integers of size N, where each value represents the number of chocolates in a packet. Each packet can have a variable number of chocolates. There are M students, the task is to distribute chocolate packets among M students such that :
1. Each student gets exactly one packet.
2. The difference between maximum number of chocolates given to a student and minimum number of chocolates given to a student is minimum.
Example 1:
Input:
N = 8, M = 5
A = {3, 4, 1, 9, 56, 7, 9, 12}
Output: 6
Explanation: The minimum difference between maximum chocolates and minimum chocolates is 9 - 3 = 6 by choosing following M packets :{3, 4, 9, 7, 9}.
Example 2:
Input:
N = 7, M = 3
A = {7, 3, 2, 4, 9, 12, 56}
Output: 2
Explanation: The minimum difference between maximum chocolates and minimum chocolates is 4 -
Type here to search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Compilation Results
Custom Input
Problem Solved Successfully
Suggest Feedback
Test Cases Passed
1122 / 1122
Attempts : Correct / Total
1 / 1
Accuracy : 100%
Points Scored
0 / 2
Your Total Score: 40
Time Taken
2.29
Solve Next
Bubble Sort
Floor in a Sorted Array
Closest Triplet
Java (1.8)
Average Time: 15m
Start Timer
//{ Driver Code Ends
//User function Template for Java
class Solution
{
public int findMinDiff (ArrayList<Integer> a, int n, int m)
{
// your code here
Collections.sort(a);
int check = Integer.MAX_VALUE;
for (int i = 0; i <= n - m; i++) {
int diff = a.get(i + m - 1) - a.get(i);
if (check > diff) {
check = diff;
}
}
return check;
}
}
Custom Input
Compile & Run
Submit
Type here to search
37°C Haze
5:45 PM
7/16/2024

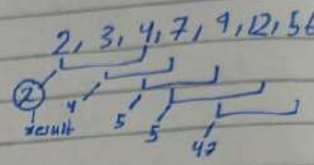
Dry Run

arr = 7, 3, 2, 4, 9, 12, 56 n = 7 m = 3

After sort

2, 3, 4, 7, 9, 12, 56

result = Integer.MAX_VALUE



i = 0 i <= n-m ✓

diff = arr[i+m-1] - arr[i] = arr[2] - arr[0]

diff = 2

result > diff ⇒ ✓

result = diff ∴ 2

i = 1 i <= n-m ✓

diff = arr[3] - arr[1] = 7-3 = 4

result > diff ∴ 2 > 4 ✗

i = 2 2 <= n-m ✓

diff = arr[4] - arr[2] = 9-4 = 5

result > diff ∴ 2 > 5 ✗

i = 3 3 <= n-m ✓

diff = arr[5] - arr[3] = 12-7 = 5

result > diff ∴ 2 > 5 ✗

i = 4 4 <= n-m ✓

diff = arr[6] - arr[4] = 56-9 = 47

result > dif ∴ 2 > 47 ✗

i = 5 5 <= n-m ✗

result = 2