

DSA PRACTICE QUESTIONS

14/11/2024

1. WAVE ARRAY: TC: $O(N)$

Output Window

Compilation Results Custom Input Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed
1120 / 1120

Attempts : Correct / Total
1 / 1

Accuracy : 100%

Points Scored
2 / 2

Time Taken
0.99

Your Total Score: 82

```
53  
54 class Solution {  
55     public static void convertToWave(int[] arr) {  
56         int i,j;  
57         for ( i=0, j=i+1; i<= arr.length-1&&j<= arr.length-1; i+=2,j+=2) {  
58             int temp=arr[i];  
59             arr[i]=arr[j];  
60             arr[j]=temp;  
61         }  
62     }  
63 }
```

2. Remove Duplicates Sorted Array: TC: $O(N)$ SC: $O(1)$

Output Window

Compilation Results Custom Input Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed
1115 / 1115

Attempts : Correct / Total
1 / 2

Accuracy : 50%

Points Scored
2 / 2

Time Taken
0.45

Your Total Score: 84

```
1 // user function template for Python  
2  
3 class Solution:  
4     def remove_duplicate(self, arr):  
5         i=0  
6         j=1  
7         while j<len(arr):  
8             if arr[i]!=arr[j]:  
9                 i+=1  
10                arr[i]=arr[j]  
11            j+=1  
12            return i+1  
13  
14 // Driver Code Ends
```

3. First Repeating Element: TC: $O(N)$ SC: $O(1)$

Compilation Results Custom Input Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed
1115 / 1115

Attempts : Correct / Total
1 / 1

Accuracy : 100%

Points Scored
2 / 2

Time Taken
1.71

Your Total Score: 86

```
41 // user function template for Java  
42  
43 class Solution {  
44     public static int firstRepeated(int[] arr) {  
45         HashMap<Integer, Integer> map = new HashMap<>();  
46         for (int i = 0; i < arr.length; i++) {  
47             map.put(arr[i], map.getOrDefault(arr[i], 0) + 1);  
48         }  
49  
50         for (int i = 0; i < arr.length; i++) {  
51             if (map.get(arr[i]) > 1) {  
52                 return i + 1;  
53             }  
54         }  
55         return -1;  
56     }  
57 }  
58  
59 }
```

4. First and Last Occurrences: TC:O(N)

Output Window

Compilation Results

Custom Input

Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed

1120 / 1120

Attempts : Correct / Total

1 / 1

Accuracy : 100%

Points Scored

4 / 4

Time Taken

1.24

Your Total Score: 90

Solve Next

Magical Number

Find the closest number

First and last occurrences of x

```
10 import java.util.ArrayList;
11
12 class GFG {
13     ArrayList<Integer> find(int arr[], int x) {
14         ArrayList<Integer> result = new ArrayList<>();
15         int left = 0;
16         int right = arr.length - 1;
17         int FC = -1;
18         int LC = -1;
19
20         while (left <= right) {
21             if (arr[left] == x && FC == -1) {
22                 FC = left;
23             }
24             if (arr[right] == x && LC == -1) {
25                 LC = right;
26             }
27             if (FC != -1 && LC != -1) {
28                 break;
29             }
30             if (FC == -1) {
31                 left++;
32             }
33             if (LC == -1) {
34                 right--;
35             }
36         }
37
38         if (FC != -1 && LC != -1) {
39             result.add(FC);
40             result.add(LC);
41         } else {
42             result.add(-1);
43             result.add(-1);
44         }
45
46         return result;
47     }
48 }
```

5. Stock buy and sell: TC: O(N)

Output Window

Compilation Results

Custom Input

Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed

142 / 142

Attempts : Correct / Total

1 / 1

Accuracy : 100%

Points Scored

4 / 4

Time Taken

0.1

Your Total Score: 94

```
42
43
44 //User function Template for Java
45
46 class Solution{
47     ArrayList<ArrayList<Integer>> stockBuySell(int A[], int n){
48
49         ArrayList<ArrayList<Integer>> ans = new ArrayList<ArrayList<Integer>>();
50
51         for(int i = 0; i < n - 1; i++){
52             if(A[i + 1] > A[i]){
53                 ArrayList<Integer> al = new ArrayList<>();
54                 al.add(i);
55                 al.add(i + 1);
56                 ans.add(al);
57             }
58         }
59         return ans;
60     }
61 }
62 }
```

6. Find transition point: TC:O(N)

Compilation Results

Custom Input

Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed

1115 / 1115

Attempts : Correct / Total

1 / 1

Accuracy : 100%

Points Scored

2 / 2

Time Taken

0.47

Your Total Score: 96

```
28 class Solution {
29     int transitionPoint(int arr[]) {
30         for(int i = 0; i < arr.length; i++) {
31             if(arr[i] == 1) return i;
32         }
33         return -1;
34     }
35 }
36
```

7. STOCK BUY AND SELL:

Compilation Results

Custom Input

Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed

142 / 142

Attempts : Correct / Total

2 / 2

Accuracy : 100%

Time Taken

0.1

```
45
46 class Solution{
47     ArrayList<ArrayList<Integer>> stockBuySell(int A[], int n){
48         ArrayList<ArrayList<Integer>> ans = new ArrayList<ArrayList<Integer>>();
49
50         for(int i = 0; i < n - 1; i++){
51             if(A[i + 1] > A[i]){
52                 ArrayList<Integer> al = new ArrayList<>();
53                 al.add(i);
54                 al.add(i + 1);
55                 ans.add(al);
56             }
57         }
58         return ans;
59     }
60 }
61
62
```

8. COIN CHANGE :

Compilation Results

Custom Input

Y.O.G.I. (AI Bot)

Problem Solved Successfully

Suggest Feedback

Test Cases Passed

1111 / 1111

Attempts : Correct / Total

1 / 2

Accuracy : 50%

Points Scored

4 / 4

Time Taken

0.14

Your Total Score: 100

```
29
30 class Solution {
31     public int count(int coins[], int sum) {
32         int[] dp = new int[sum+1];
33         dp[0]=1;
34         for(int i : coins){
35             for(int j=i;j<=sum;j++){
36                 dp[j]+=dp[j-i];
37             }
38         }
39         return dp[sum];
40     }
41 }
42
43
```

