Shriharsha A Vaidhyam

Quiz 12

Source code:

#quiz 12

#Shriharsha

minmax = [0,0]

i = 2;

def findSmallAndLarge(arr,n):

if(n % 2 == 0):

if (arr[0] > arr[1]):

minmax[0] = arr[0]

minmax[1] = arr[1]

else:

minmax[0] = arr[0]

minmax[1] = arr[1]

else:

minmax[0] = arr[0]

minmax[1] = arr[0]

i = 1

while (i < n - 1):

if (arr[i] > arr[i + 1]):

if (arr[i] > minmax[1]):

minmax[1] = arr[i]

if (arr[i + 1] < minmax[0]):

minmax[0] = arr[i + 1]

else:

if (arr[i + 1] > minmax[1]):

minmax[1] = arr[i + 1]

if (arr[i] < minmax[0]):

minmax[0] = arr[i]

i += 2

#test case 1

print(" ")

print("test case 1: ")

arr1 = [ 1, 8, 3, 9, 6, 5, 4]

N = len(arr1)

findSmallAndLarge(arr1, N);

print( "Smallest is: " , minmax[0] )

print( "Largest is: " , minmax[1] )

print(" ")

#test case 2

print("test case 2: ")

arr2 = [ 9, 8, 7, 6, 10]

N = len(arr2)

findSmallAndLarge(arr2, N);

print( "Smallest is: " , minmax[0] )

print( "Largest is: " , minmax[1] )

print(" ")

#test case 3

print("test case 3: ")

arr3 = [ 11, 2, 3, 4, 5, 7, 8, 9, 10]

N = len(arr3)

findSmallAndLarge(arr3, N);

print( "Smallest is: " , minmax[0] )

print( "Largest is: " , minmax[1] )

Output:

harshavaidhyam@Harshas-MacBook-Pro quiz 12 % cd /Users/harshavaidhyam/Desktop/Pitt\ term-1/Algo\ Design/quiz\ 12 ; /usr/bin/env /usr/local/bin/python3 /Users/harshavai

dhyam/.vscode/extensions/ms-python.python-2022.16.1/pythonFiles/lib/python/debugpy/adapter/../../debugpy/launcher 57123 -- /Users/harshavaidhyam/Desktop/Pitt\ term-1/Al

go\ Design/quiz\ 12/quiz12.py

**test case 1:**

**Smallest is: 1**

**Largest is: 9**

**test case 2:**

**Smallest is: 6**

**Largest is: 10**

**test case 3:**

**Smallest is: 2**

**Largest is: 11**