

HATFD1025

Find the Second Largest Element in an Array

Write a program to find the second-largest element in an array of integers without using any sorting algorithms or built-in array functions.

Instructions: Traverse the array manually to find both the largest and second-largest elements

C: > Users > Durga > Desktop > second_largest_element.py

```
1  n = int(input("Enter the number of elements: "))
2  print("Enter the elements: ")
3  nums = list(map(int, input().split()))
4
5  largest = None
6  second_largest = None
7
8  if nums[0] > nums[1]:
9      largest = nums[0]
10     second_largest = nums[1]
11
12 else:
13     largest = nums[1]
14     second_largest = nums[0]
15
16
17 for i in range(2, n):
18     if nums[i] > largest:
19         second_largest = largest
20         largest = nums[i]
21
22     elif (nums[i] < largest and nums[i] > second_largest):
23         second_largest = nums[i]
24
25
26 print(f"The largest element is {largest}")
27 print(f"The second largest element is {second_largest}")
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

```
PS C:\Users\Durga> python -u "c:\Users\Durga\Desktop\second_largest_element.py"
```

```
Enter the number of elements: 5
```

```
Enter the elements:
```

```
3 5 1 2 4
```

```
The largest element is 5
```

```
The second largest element is 4
```

```
PS C:\Users\Durga> 
```

0 0 0 0

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

```
PS C:\Users\Durga> python -u "c:\Users\Durga\Desktop\second_largest_element.py"
```

```
Enter the number of elements: 10
```

```
Enter the elements:
```

```
12 24 66 72 62 88 74 97 56 28
```

```
The largest element is 97
```

```
The second largest element is 88
```

```
PS C:\Users\Durga> █
```

0 △ 0 0

19 if second_largest == largest

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\Durga> python -u "c:\Users\Durga\Desktop\second_largest_element.py"

Enter the number of elements: 6

Enter the elements:

8179 9704 5692 4259 3791 2476

The largest element is 9704

The second largest element is 8179

PS C:\Users\Durga> █

0 0 △ 0 0 0

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