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PROBLEM STATEMENT :
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.

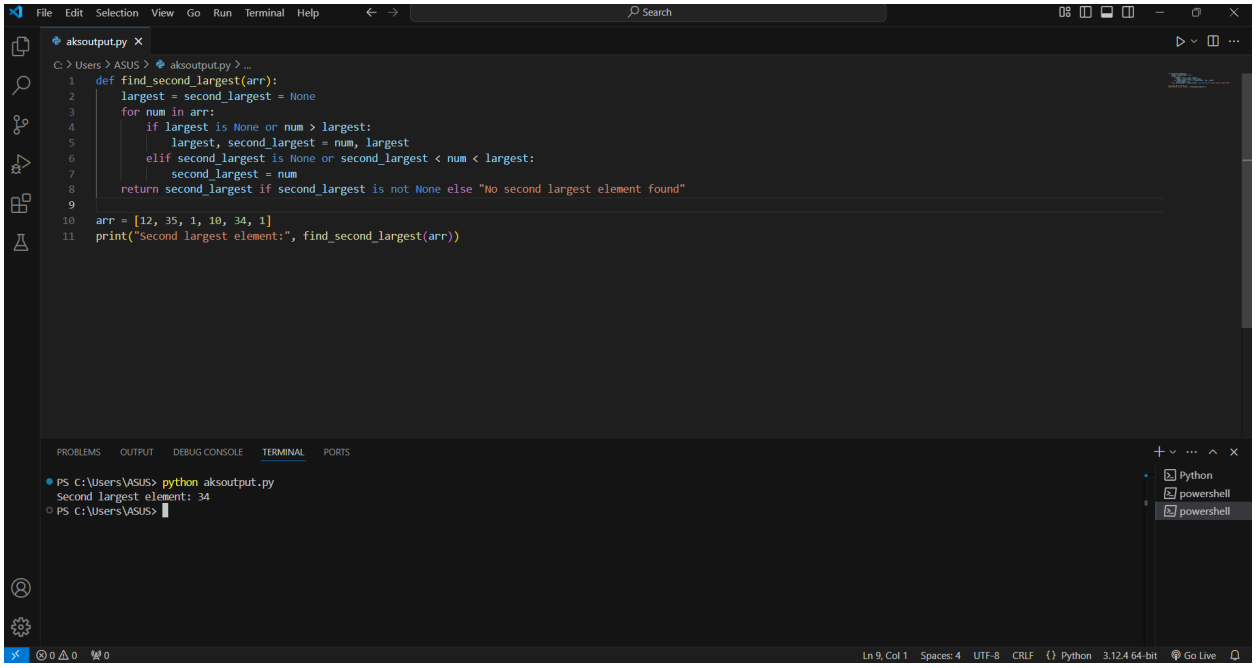
Instructions: Traverse the array manually to find both the largest and second-largest elements

PROGRAM CODE :

1. SAMPLE INPUT

```
def find_second_largest(arr):
    largest = second_largest = None
    for num in arr:
        if largest is None or num > largest:
            second_largest = largest
            largest = num
        elif second_largest is None or num > second_largest:
            if num != largest:
                second_largest = num
    if second_largest is None:
        return "No second largest element found"
```

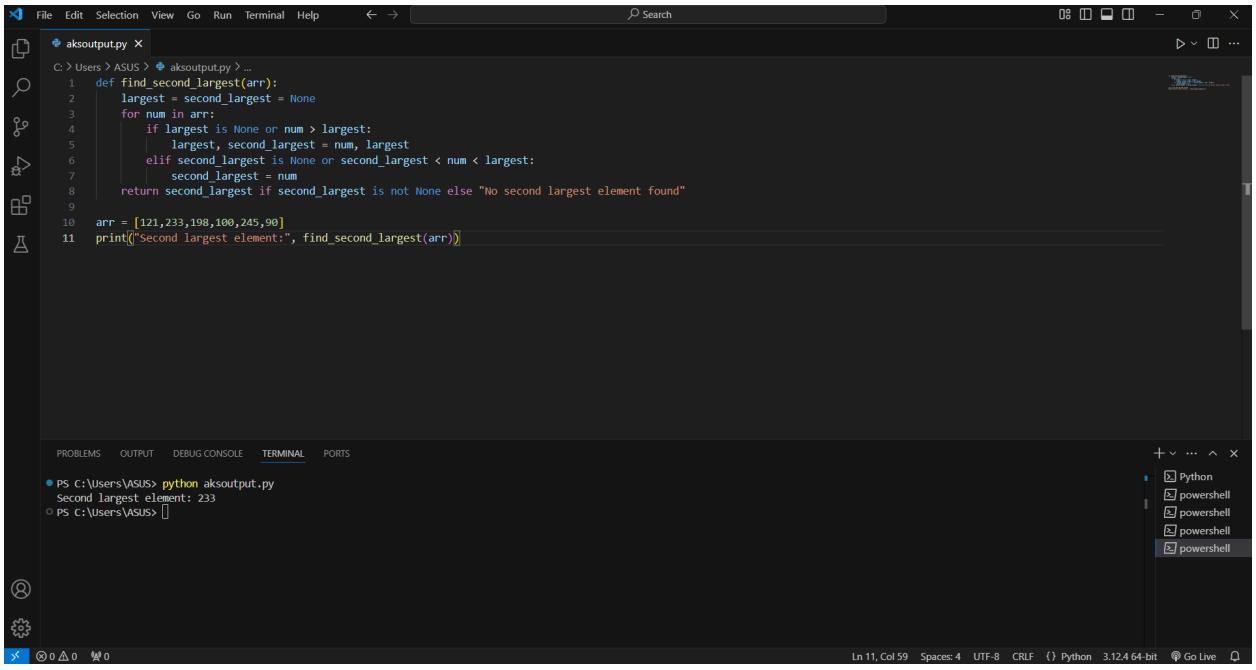
```
    return second_largest

arr = [12, 35, 1, 10, 34, 1]

print("Second largest element:", find_second_largest(arr))
```



2.SAMPLE INPUT

```
def find_second_largest(arr):
    largest = second_largest = None
    for num in arr:
        if largest is None or num > largest:
            second_largest = largest
            largest = num
        elif second_largest is None or num > second_largest:
            if num != largest:
```

```
            second_largest = num
    if second_largest is None:
        return "No second largest element found"
    return second_largest
arr = [121,233,198,100,245,90]
print("Second largest element:", find_second_largest(arr))
```



3.SAMPLE INPUT

```
def find_second_largest(arr):
    largest = second_largest = None
    for num in arr:
        if largest is None or num > largest:
            second_largest = largest
```

```
            largest = num
        elif second_largest is None or num > second_largest:
            if num != largest:
                second_largest = num
    if second_largest is None:
        return "No second largest element found"
    return second_largest
arr = [233]
print("Second largest element:", find_second_largest(arr))
```