

Problem statement:

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

1'st input:

```
import numpy as np

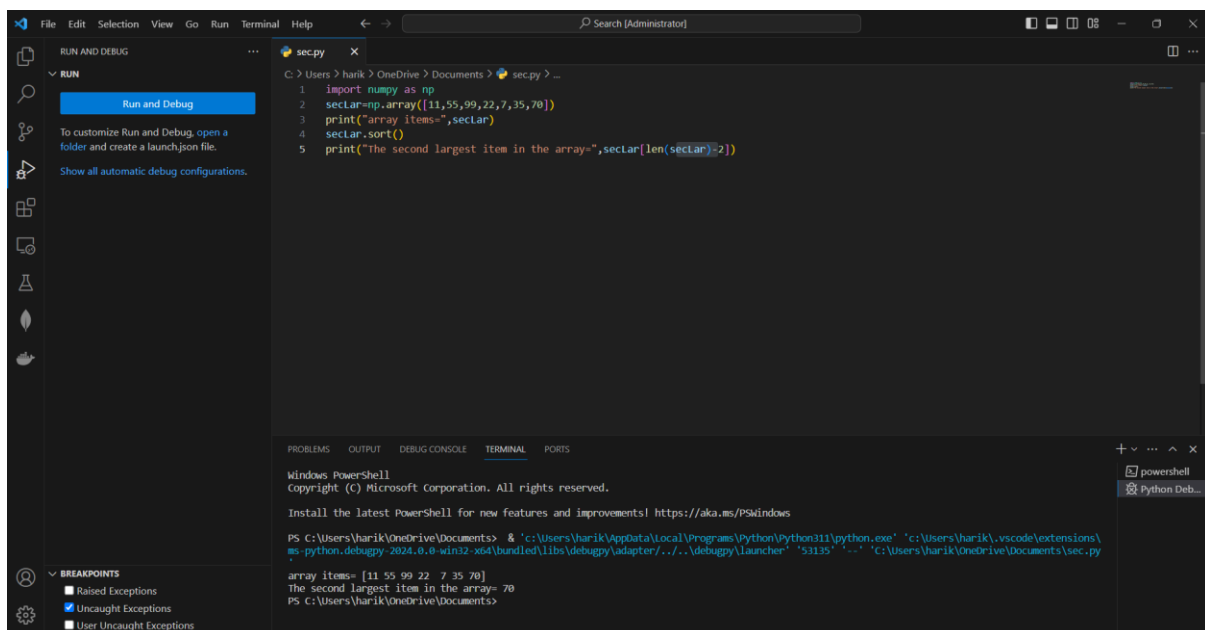
seclarr=np.array([11,55,99,22,7,35,70])

print("array items=",seclarr)

seclarr.sort()

print("The second largest item in the array=",seclarr[len(seclarr)- 2])
```

Output:



The screenshot shows a Visual Studio Code window with a Python file named 'sec.py' open. The code in the file is as follows:

```
1 import numpy as np
2 seclarr=np.array([11,55,99,22,7,35,70])
3 print("array items=",seclarr)
4 seclarr.sort()
5 print("The second largest item in the array=",seclarr[len(seclarr)-2])
```

The bottom panel of the VS Code window displays the 'TERMINAL' output, which shows the execution of the script in a PowerShell environment. The output is:

```
array items= [11 55 99 22 7 35 70]
The second largest item in the array= 70
```

2'nd input:

```
import numpy as np

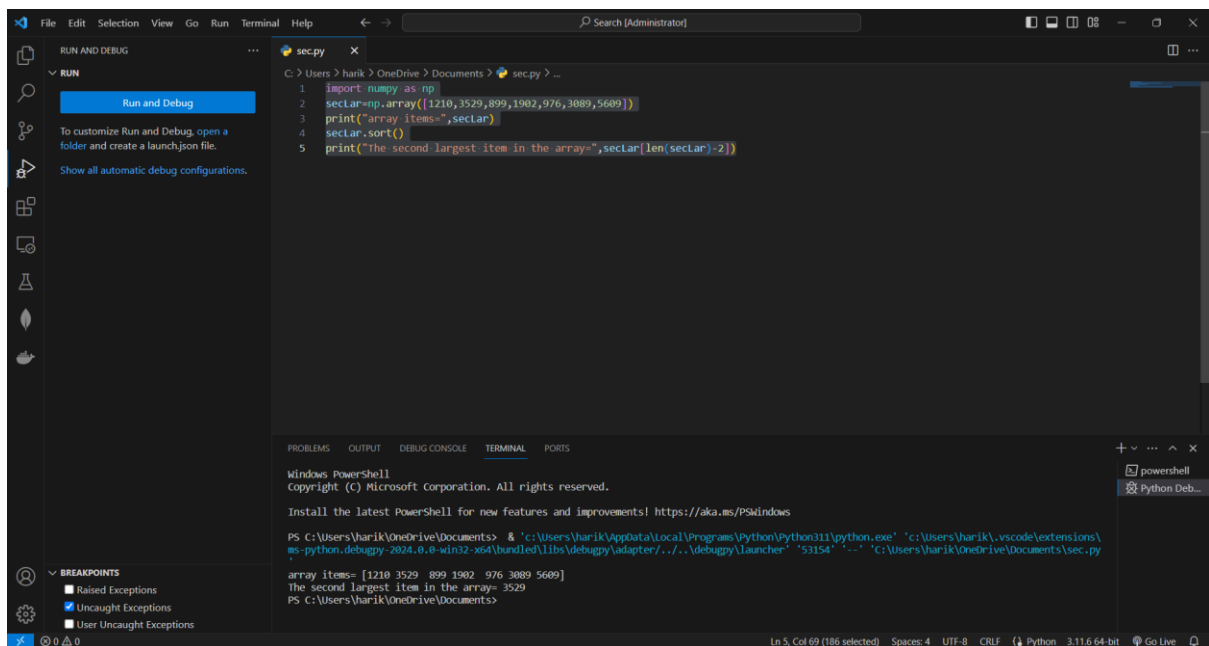
secLar=np.array([1210,3529,899,1902,976,3089,5609])

print("array items=",secLar)

secLar.sort()

print("The second largest item in the array=",secLar[len(secLar)-2])
```

Output:



The screenshot shows a Visual Studio Code editor window with a Python file named 'sec.py'. The code in the file is as follows:

```
1 import numpy as np
2 secLar=np.array([1210,3529,899,1902,976,3089,5609])
3 print("array items=",secLar)
4 secLar.sort()
5 print("The second largest item in the array=",secLar[len(secLar)-2])
```

The bottom panel of the editor shows the 'TERMINAL' output, which displays the execution of the script in a Windows PowerShell environment. The output is:

```
array items= [1210 3529 899 1902 976 3089 5609]
The second largest item in the array= 3529
```

3'rd input:

```
import numpy as np

secLar=np.array([904610,90629,12569,163402,904576,64589,98909])

print("array items=",secLar)

secLar.sort()

print("The second largest item in the array=",secLar[len(secLar)-2])
```

Output:

