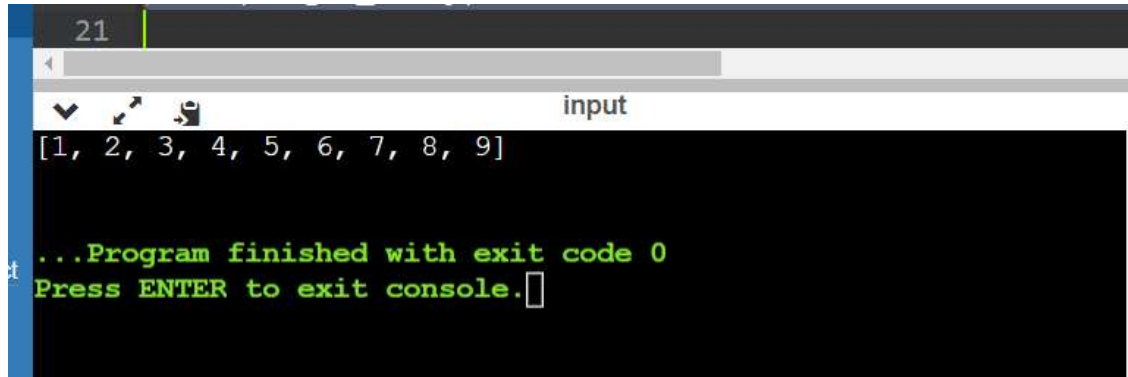


Problem 6: Merge k sorted array

```
def find_kth_element(array1, array2, k):  
    m, n = len(array1), len(array2)  
  
    i, j = 0, 0  
    count = 0  
  
    while i < m and j < n:  
        if array1[i] <= array2[j]:  
            current_element = array1[i]  
            i += 1  
        else: current_element = array2[j]j += 1  
  
        count += 1  
  
        if count == k:  
            return current_element  
  
    while i < m:  
        count += 1  
  
        if count == k:  
            return array1[i]  
        i += 1  
  
    while j < n:  
        count += 1  
  
        if count == k:  
            return array2[j]  
        j += 1  
  
    return "Error: k exceeds the total number of elements."  
  
array1 = [2, 3, 6, 7, 9]  
array2 = [1, 4, 8, 10]  
k = 5
```

```
result = find_kth_element(array1, array2, k)
```

```
print(result)
```

A screenshot of a terminal window. The title bar at the top shows the number '21'. Below the title bar is a menu bar with icons for a dropdown, a window, and a file. The main area of the terminal has a black background with green text. It displays the array '[1, 2, 3, 4, 5, 6, 7, 8, 9]' on one line. Below that, it says '...Program finished with exit code 0' and 'Press ENTER to exit console.' followed by a cursor icon.

```
21
```

```
input
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
...Program finished with exit code 0
```

```
Press ENTER to exit console.
```