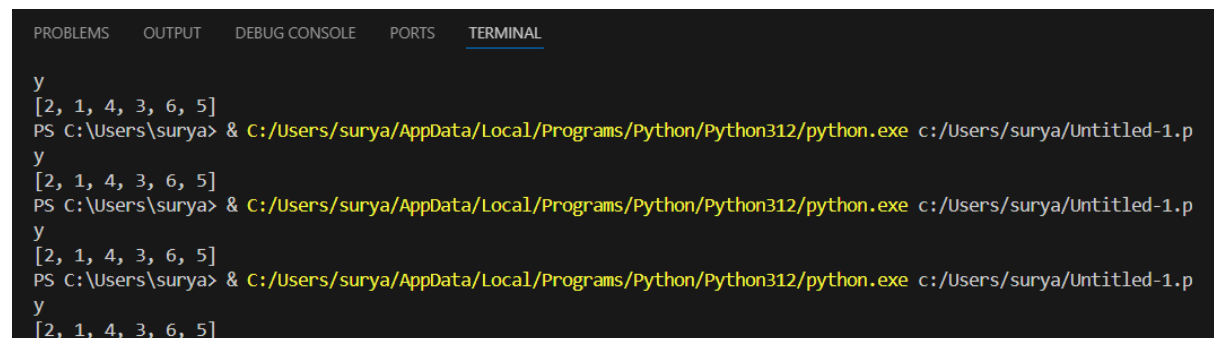


18. Sort the array so that whenever `nums[i]` is odd, `i` is odd, and whenever `nums[i]` is even, `i` is even. Return any answer array that satisfies this condition.

PROGRAM:

```
def sorta(a):  
    odd=sorted([x for x in a if x%2!=0])  
    even=sorted([x for x in a if x%2==0])  
    sorted_nums=[0]*len(a)  
    sorted_nums[::2]=even  
    sorted_nums[1::2]=odd  
    return sorted_nums  
  
a=[1,2,3,4,5,6]  
print(sorta(a))
```

OUTPUT:



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  PORTS  TERMINAL  
y  
[2, 1, 4, 3, 6, 5]  
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.p  
y  
[2, 1, 4, 3, 6, 5]  
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.p  
y  
[2, 1, 4, 3, 6, 5]  
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.p  
y  
[2, 1, 4, 3, 6, 5]
```

TIME COMPLEXITY:

Time complexity for the above code is

$F(n)=O(n\log n)$