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:

```
PS C:\Users\chall\OneDrive\Desktop\DAA> & C:/Users/chall/AppData/Local/Programs/Python/Python312/python.exe
"
[2, 1, 4, 3, 6, 5]
PS C:\Users\chall\OneDrive\Desktop\DAA>
```

TIME COMPLEXITY:

Time complexity for the above code is

F(n)=O(nlogn)