DATE: 06/06/2024

20. 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.

AIM: To find 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.

CODE:

```
def sort_array(nums):
 even_index = 0
 odd_index = 1
 while even_index < len(nums) and odd_index < len(nums):
 while even_index < len(nums) and nums[even_index] % 2 == 0:
 even_index += 2
 while odd_index < len(nums) and nums[odd_index] % 2 == 1:
 odd_index += 2
 if even_index < len(nums) and odd_index < len(nums):
 nums[even_index], nums[odd_index] = nums[odd_index], nums[even_index]
 even_index += 2
 odd_index += 2
 return nums
nums = [4, 2, 5, 7]
result = sort_array(nums)
print(result)
```

output:

TIME COMPLEXITY: O(n)