9. Given an array of integers nums, half of the integers in nums are odd, and the other half are even.

```
def partition_even_odd(nums):
    left = 0
    right = len(nums) - 1
    while left < right:
        while left < right and nums[left] % 2 == 0:
            left += 1
                while left < right and nums[right] % 2 != 0:
            right -= 1
                if left < right:
            nums[left], nums[right] = nums[right], nums[left]
            left += 1
            right -= 1
    return nums
nums = [3, 6, 12, 7, 9, 4, 10, 5]
sorted_nums = partition_even_odd(nums)
print(sorted_nums)
```

output:

```
[10, 6, 12, 4, 9, 7, 3, 5]

=== Code Execution Successful ===
```

TIME COMPLEXITY:-O(n)