

Given an array of integers half of int in nums are even and

half are odd

PROGRAM:

```
a=[1,2,3,4,5,6]
```

```
even=[]
```

```
odd=[]
```

```
for i in range(len(a)):
```

```
if a[i]%2==0:
```

```
    even.append(a[i])
```

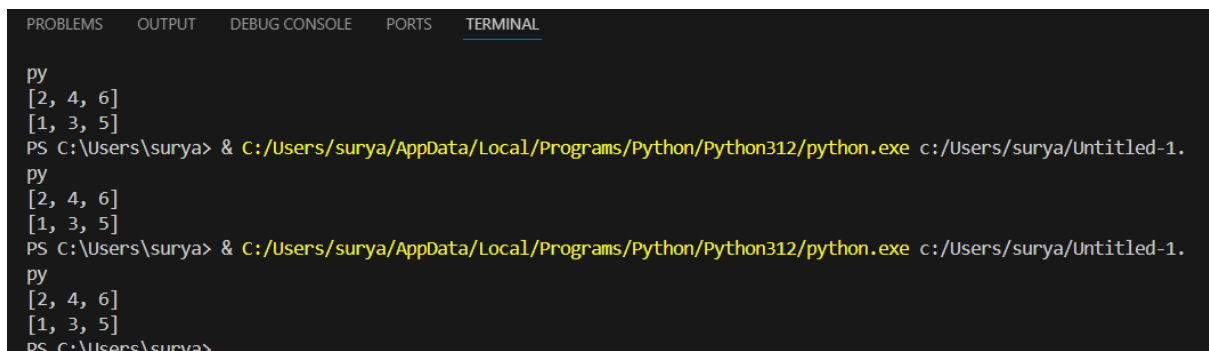
```
else:
```

```
    odd.append(a[i])
```

```
print(even)
```

```
print(odd)
```

OUTPUT:



```
py
[2, 4, 6]
[1, 3, 5]
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.
py
[2, 4, 6]
[1, 3, 5]
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.
py
[2, 4, 6]
[1, 3, 5]
PS C:\Users\surya>
```

TIME COMPLEXITY:

Time complexity for the above code is

$F(n)=O(n)$