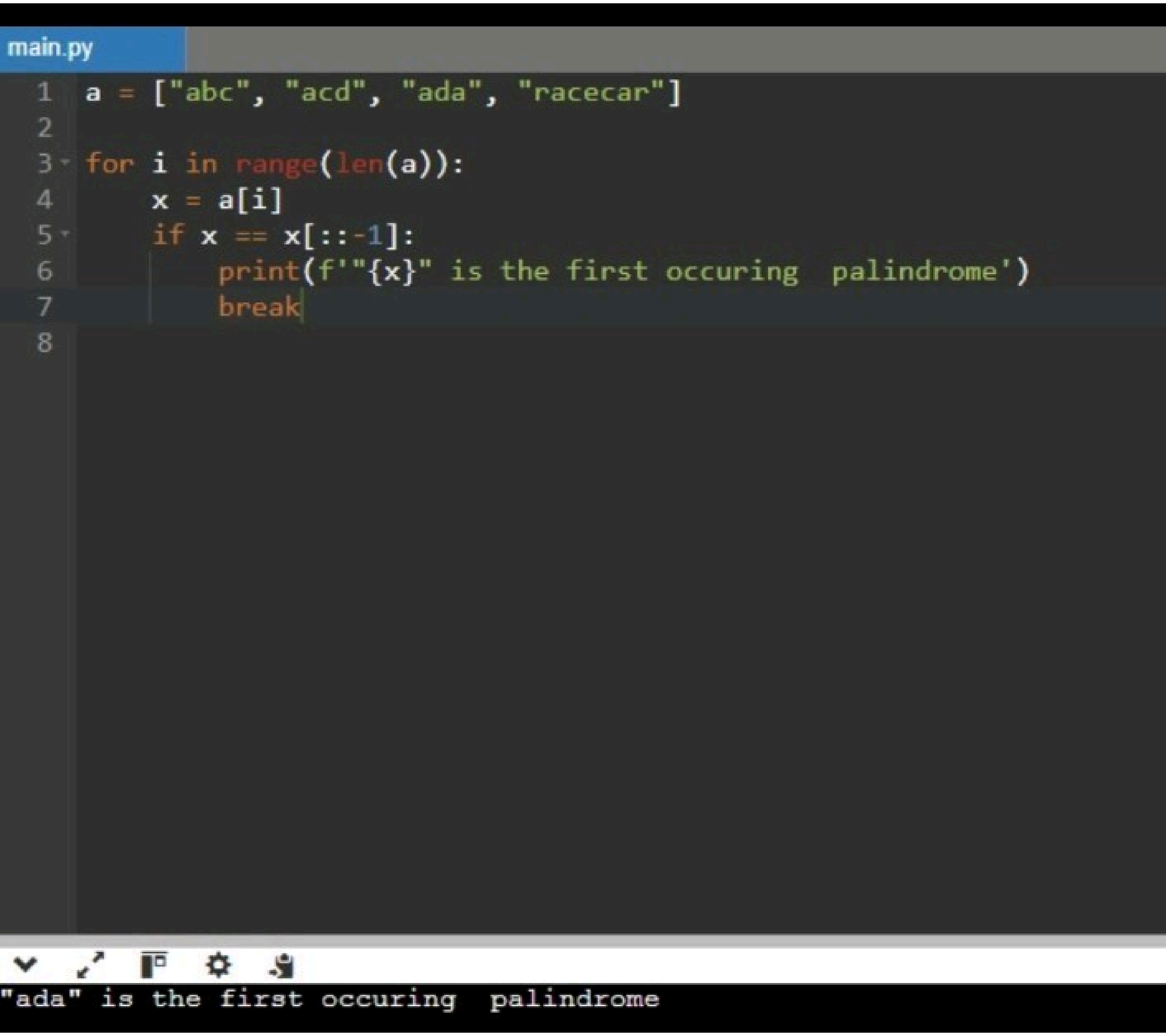
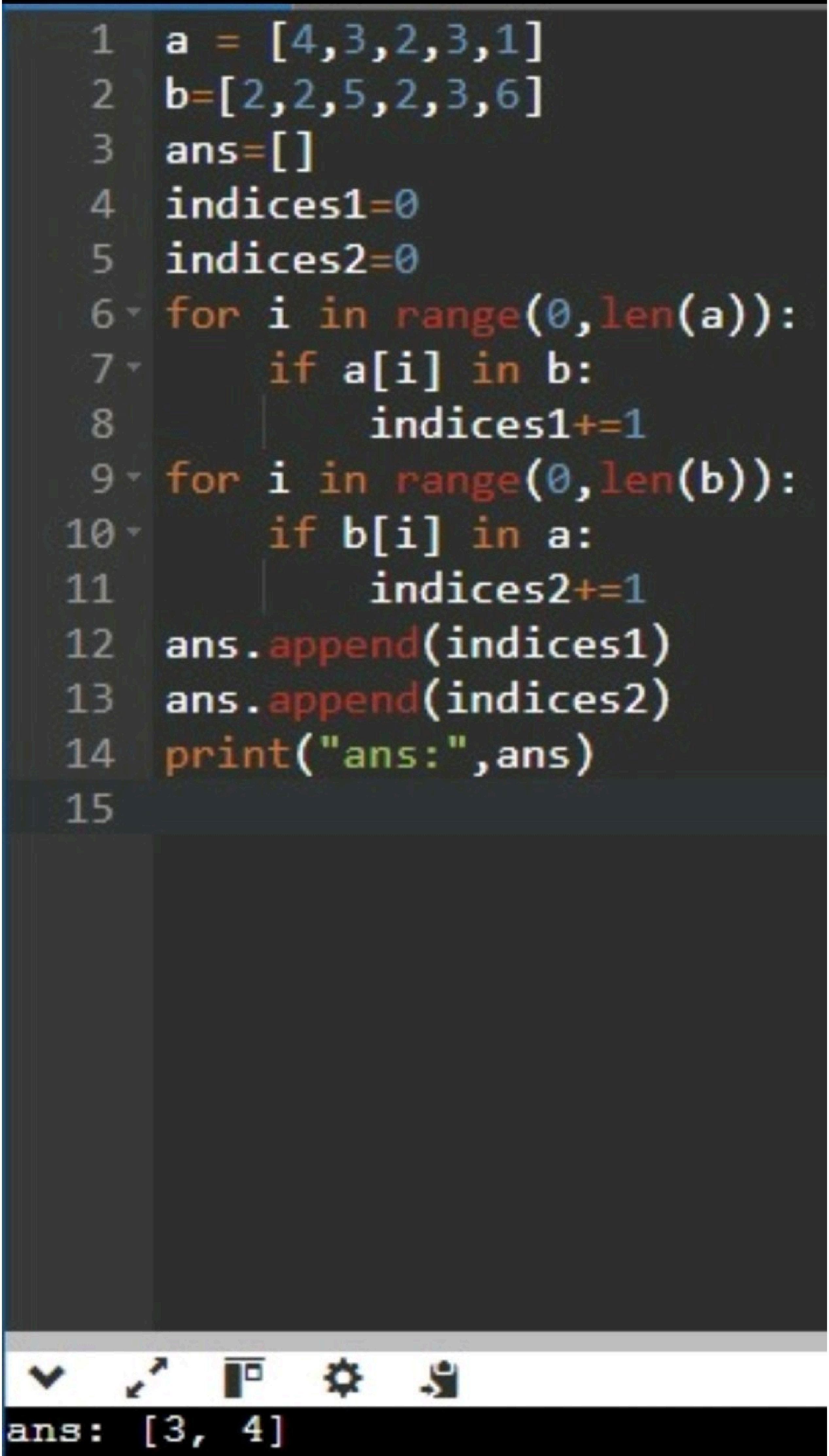


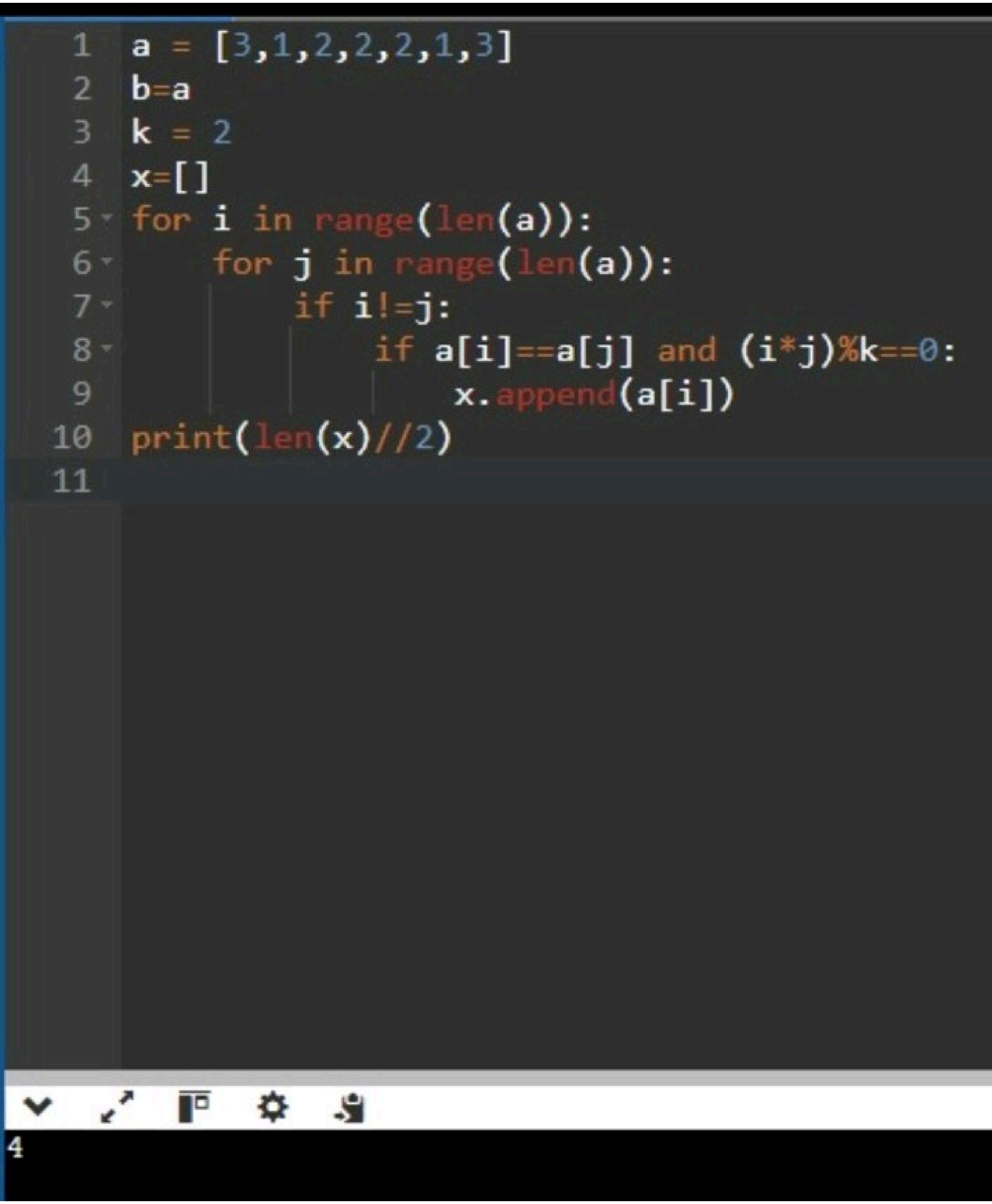
```python
a = ["abc", "acd", "ada", "racecar"]

for i in range(len(a)):
    x = a[i]
    if x == x[::-1]:
        print(f'"{x}" is the first occuring  palindrome')
        break

```

```
"ada" is the first occuring  palindrome
```



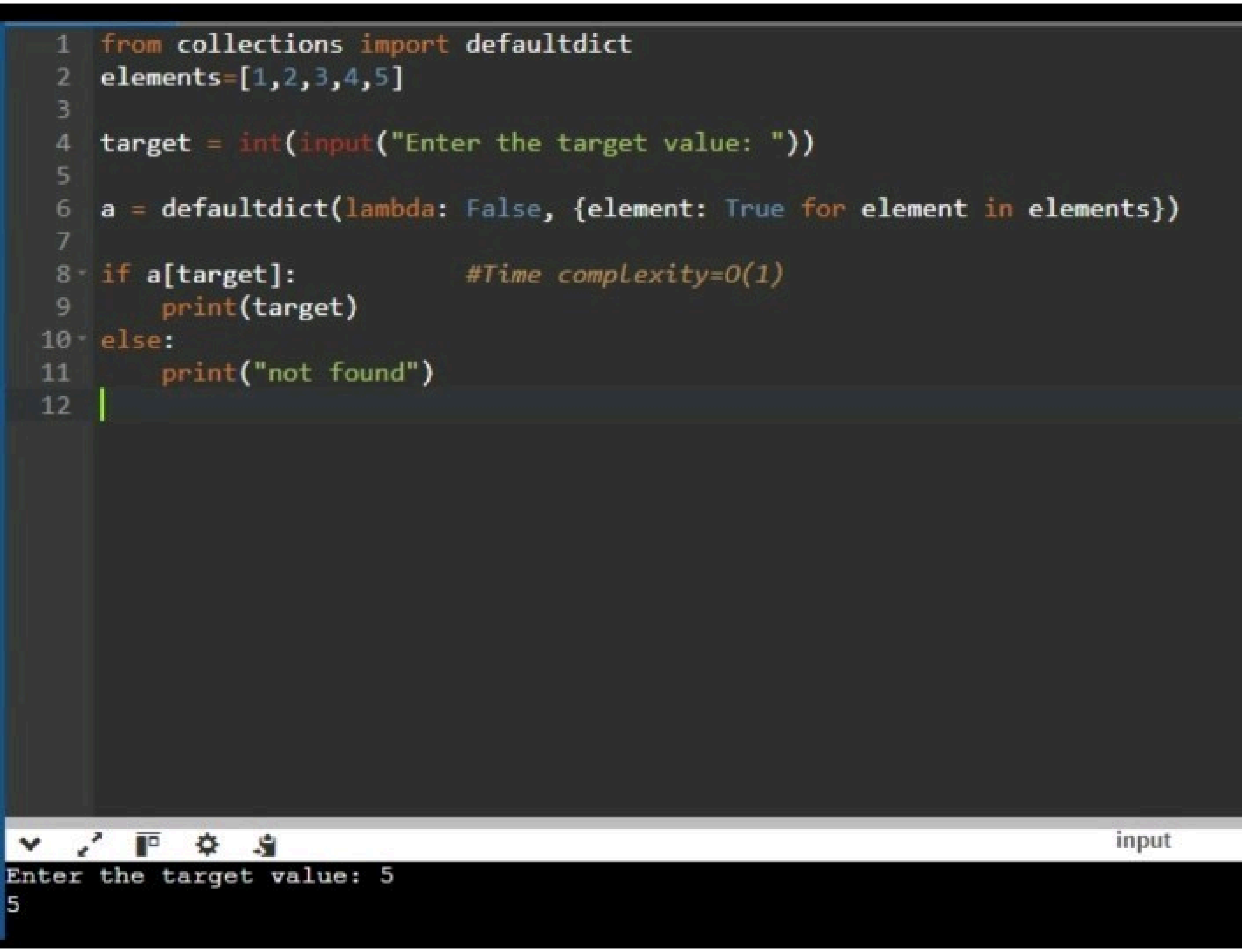
```python
a = [4,3,2,3,1]
b=[2,2,5,2,3,6]
ans=[]
indices1=0
indices2=0
for i in range(0,len(a)):
    if a[i] in b:
        indices1+=1
for i in range(0,len(b)):
    if b[i] in a:
        indices2+=1
ans.append(indices1)
ans.append(indices2)
print("ans:",ans)

```

```
ans: [3, 4]
```



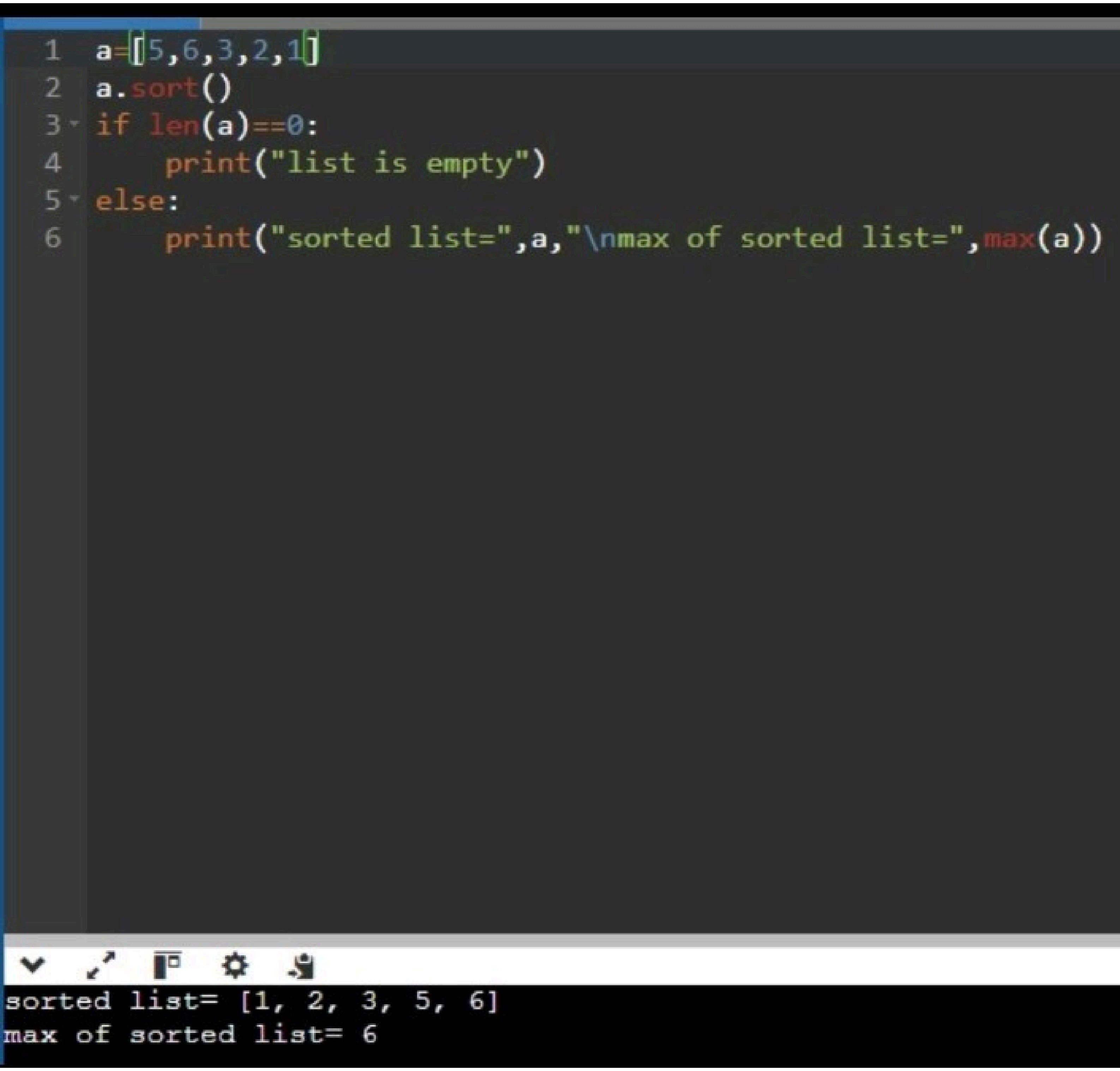
```python
a = [3,1,2,2,2,1,3]
b=a
k = 2
x=[]
for i in range(len(a)):
    for j in range(len(a)):
        if i!=j:
            if a[i]==a[j] and (i*j)%k==0:
                x.append(a[i])
print(len(x)//2)

```

```
4
```



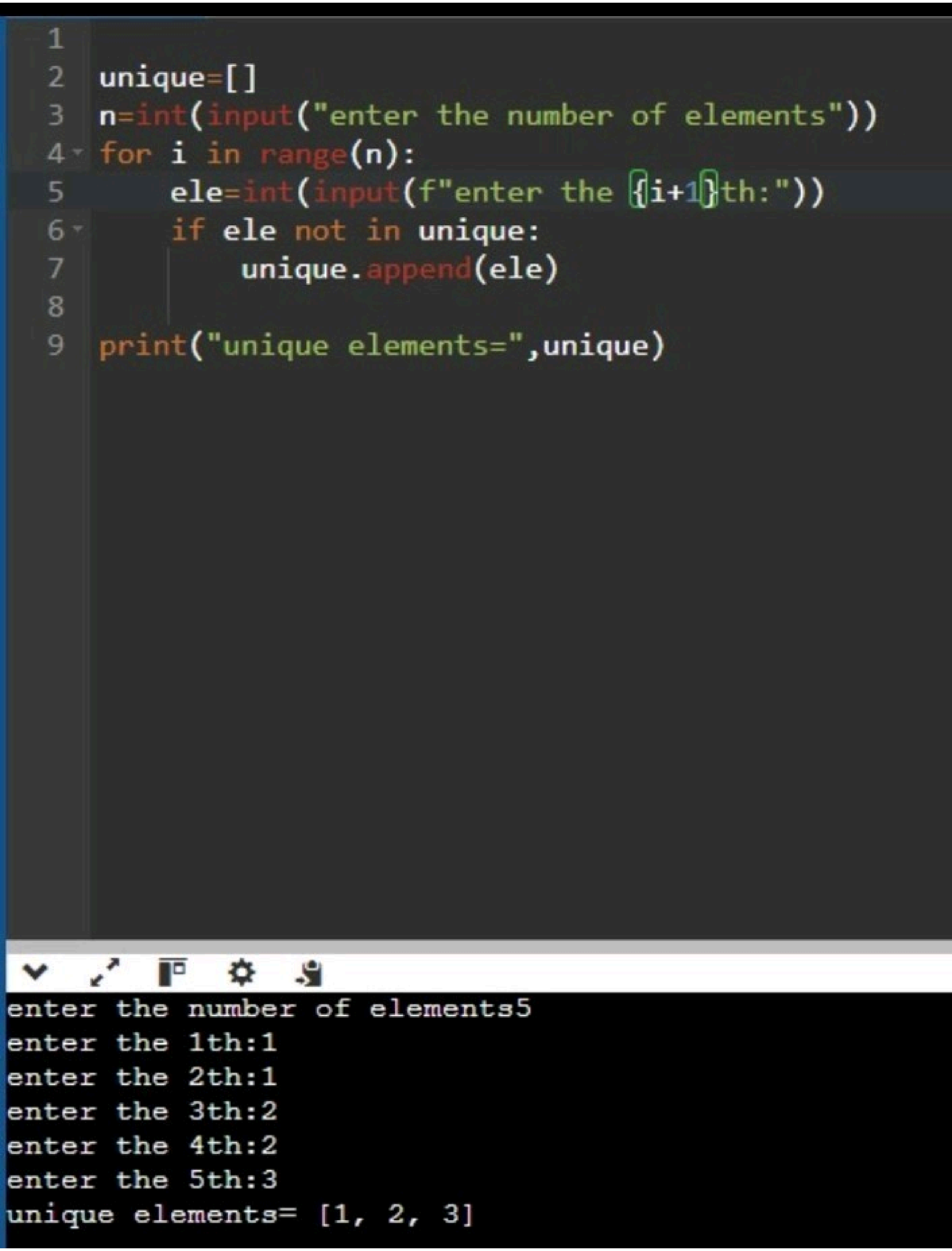
```python
from collections import defaultdict
elements=[1,2,3,4,5]

target = int(input("Enter the target value: "))

a = defaultdict(lambda: False, {element: True for element in elements})

if a[target]:           #Time complexity=O(1)
    print(target)
else:
    print("not found")

```

```
Enter the target value: 5
5
```



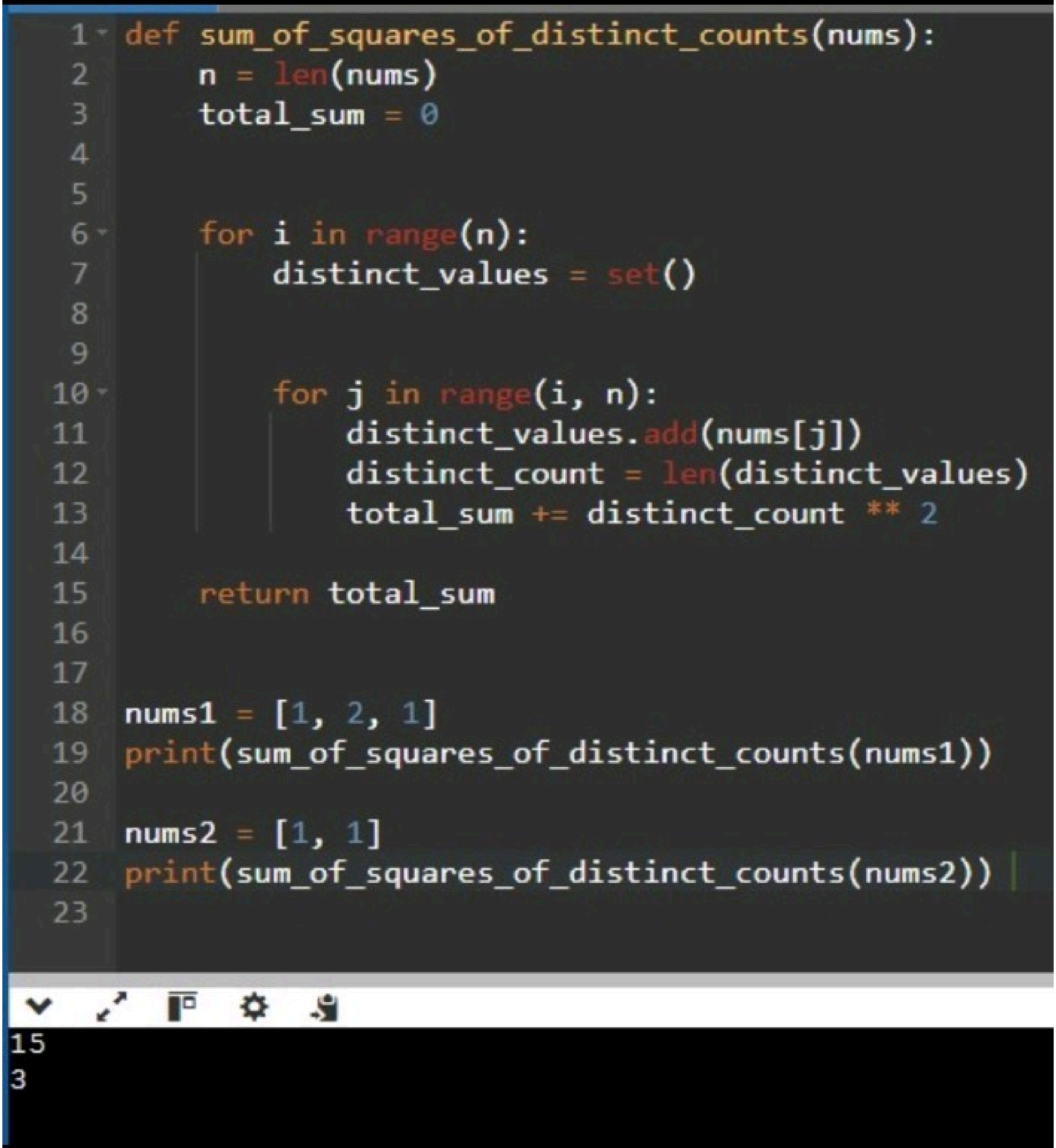
```python
a=[5,6,3,2,1]
a.sort()
if len(a)==0:
    print("list is empty")
else:
    print("sorted list=",a,"\nmax of sorted list=",max(a))
```

```
sorted list= [1, 2, 3, 5, 6]
max of sorted list= 6
```



```python

unique=[]
n=int(input("enter the number of elements"))
for i in range(n):
    ele=int(input(f"enter the {i+1}th:"))
    if ele not in unique:
        unique.append(ele)

print("unique elements=",unique)
```

```
enter the number of elements5
enter the 1th:1
enter the 2th:1
enter the 3th:2
enter the 4th:2
enter the 5th:3
unique elements= [1, 2, 3]
```



```python
def sum_of_squares_of_distinct_counts(nums):
    n = len(nums)
    total_sum = 0


    for i in range(n):
        distinct_values = set()


        for j in range(i, n):
            distinct_values.add(nums[j])
            distinct_count = len(distinct_values)
            total_sum += distinct_count ** 2

    return total_sum


nums1 = [1, 2, 1]
print(sum_of_squares_of_distinct_counts(nums1))

nums2 = [1, 1]
print(sum_of_squares_of_distinct_counts(nums2))

```

```
15
3
```