In [11]:
```
# input = ['a','b','c']
# output = ['a1', 'a2', 'a3', 'b1', 'b2', 'b3', 'c1', 'c2', 'c3']


lst = ['a','b','c']
lst1 = list(range(1,4))
res = [ ]
for i in lst:
    for j in lst1:
        res.append(i + str(j))

print(res)
```

```
['a1', 'a2', 'a3', 'b1', 'b2', 'b3', 'c1', 'c2', 'c3']
```

In [15]:
```
# input_str = "the cat and the dog are fighting "
# output :
# are - 1
# dog - 1
# and - 1
# cat - 1
# fighting - 1
# the - 2

input_str = "the cat and the dog are fighting "

def counts (str):
    str_list = str.split()

    uq_counts = set(str_list)

    for i in uq_counts:
        a = str_list.count(i)
        print(i,"-",a)

counts(input_str)
```

```
are - 1
dog - 1
and - 1
cat - 1
fighting - 1
the - 2
```

In [3]:
```
# duplicate records in list

lst = [3,4,5,72,5,5,3,6,4,23,65]
res = []
for i in range(len(lst)):
    for j in range(i+1,len(lst)):
        if lst[i] == lst[j] and lst[i] not in res:
            res.append(lst[i])
print(res)
```

```
[3, 4, 5]
```

In [24]:
```
# fabonacii series function

def fabonacii(n):
    a = 0
    b = 1
    if n == 1:
        print(a)
    else:
        print(a)
        print(b)
        for i in range(2,n):
            c = a + b
            a = b
            b = c
            print(c)

print(fabonacii(2))
```

```
0
1
None
```

In [1]:
```
# common element in between two list

lst1 = [1,2,3,4,5,6]
lst2 = [5,6,7,8,9]
lst = [ ]

for i in lst1:
    for j in lst2:
        if i == j:
            lst.append(i)
print(lst)
```

```
[5, 6]
```

In [3]:
```
# occurance count of element in this list

lst = [7,8,9,10,9,7,7,8,12,13,9]
s = set(lst)
for i in s:
    count = lst.count(i)
    print(i,"occured",count,"times")
```

```
7 occured 3 times
8 occured 2 times
9 occured 3 times
10 occured 1 times
12 occured 1 times
13 occured 1 times
```

In [19]:
```
# sorting without in built function

lst = [3,6,2,5,4]

res = [ ]
for i in range(len(lst)):
    for j in range(i+1 ,len(lst)):
        if lst[i] > lst[j] :
            lst[i],lst[j] = lst[j],lst[i]
print(lst)
```

```
[2, 3, 4, 5, 6]
```

In [25]:
```
# occurance / position of odd number

lst = [5,3,4,6,2,3,1,4,6,5,7,6]

for i in lst:
    if i % 2 == 1:
        print("Location of ",i,"in list",lst.index(i))
```

```
Location of  5 in list 0
Location of  3 in list 1
Location of  3 in list 1
Location of  1 in list 6
Location of  5 in list 0
Location of  7 in list 10
```

In [28]:
```
#  count of odd number in list

lst = [5,3,4,6,2,3,1,4,6,5,7,6]
sets = set(lst)
for i in sets:
    if i % 2 == 1:
        print("count of ",i,"in list",lst.count(i))
```

```
count of  1 in list 1
count of  3 in list 2
count of  5 in list 2
count of  7 in list 1
```

In [7]:
```python
# diff between append and extend
lst1 = [5,3,4,6,2,3,1,4,6,5,7,6]
lst2 = (5,3,4)
lst1.append(lst2)
print(lst1)

lst1 = [5,3,4,6,2,3,1,4,6,5,7,6]
lst2 = (5,3,4)
lst1.extend(lst2)
print(lst1)
```

```
[5, 3, 4, 6, 2, 3, 1, 4, 6, 5, 7, 6, (5, 3, 4)]
[5, 3, 4, 6, 2, 3, 1, 4, 6, 5, 7, 6, 5, 3, 4]
```

In [34]:
```python
# slicing
lst1 = [5,3,4,6,2,3,1,4,6,5,7,6]
res = lst[-1:2:2]
print(res)
```

```
[]
```

In [ ]: