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from itertools import product
# 两个可迭代对象，每个对象重复使用1次
result = list(product([1, 2], ['a', 'b'], repeat=1))
# 输出: [(1, 'a'), (1, 'b'), (2, 'a'), (2, 'b')]
# 两个可迭代对象，每个对象重复使用2次
result = list(product([1, 2], ['a', 'b'], repeat=2))
# 输出: [(1, 'a', 1, 'a'), (1, 'a', 1, 'b'), (1, 'a', 2, 'a'), (1, 'a', 2, 'b'),
(1, 'b', 1, 'a'), (1, 'b', 1, 'b'), (1, 'b', 2, 'a'), (1, 'b', 2, 'b'), (2, 'a', 1,
'a'), (2, 'a', 1, 'b'), (2, 'a', 2, 'a'), (2, 'a', 2, 'b'), (2, 'b', 1, 'a'), (2,
'b', 1, 'b'), (2, 'b', 2, 'a'), (2, 'b', 2, 'b')]
# 1个可迭代对象，每个对象重复使用2次
res = list(product([0,1,2],repeat=2))
# [(0, 0), (0, 1), (0, 2), (1, 0), (1, 1), (1, 2), (2, 0), (2, 1), (2, 2)]
# 3个可迭代对象，默认每个使用1次
res = list(product([0,1,2],[0,1,2],[0,1,2]))
#[(0, 0, 0), (0, 0, 1), (0, 0, 2), (0, 1, 0), (0, 1, 1), (0, 1, 2), (0, 2, 0), (0,
2, 1), (0, 2, 2), (1, 0, 0), (1, 0, 1), (1, 0, 2), (1, 1, 0), (1, 1, 1), (1, 1, 2),
(1, 2, 0), (1, 2, 1), (1, 2, 2), (2, 0, 0), (2, 0, 1), (2, 0, 2), (2, 1, 0), (2, 1,
1), (2, 1, 2), (2, 2, 0), (2, 2, 1), (2, 2, 2)]

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from collections import defaultdict
d = defaultdict(list)
for i in range(5):
    for j in range(3): # 追加多个项的循环
        d[i].append(i + j)
#d: defaultdict(<class 'list'>, {0: [0, 1, 2], 1: [1, 2, 3], 2: [2, 3, 4], 3: [3,
4, 5], 4: [4, 5, 6]})

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```

a = 'abcabcabc11111'
print(a.replace('abc','2',1)) # 2abcabc11111
print(a.replace('abc','3',2)) # 33abc11111
print(a.find('abc')) # 0
print(a.find('bc')) # 1
print(a.find('3')) # -1 # replace 和 find 函数
print(a.count('abc',3,4)) # 0
print(a.count('abc',3,6)) # 1 # count函数

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```

list1 = [[0,1],[1,0]]
set1 = set(list1) # 报错: TypeError: unhashable type: 'list' 可以改为tuple
list1 = [1, 2, 3, 4, 5]
list2 = [4, 5, 6, 7, 8]
set1 = set(list1)
set2 = set(list2)
intersection = set1 & set2 # {4, 5}, 交集
difference = set1 - set2 # {1, 2, 3}, 差集
union = set1 | set2 # {1, 2, 3, 4, 5, 6, 7, 8}, 并集

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