

Python - 作业 2

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March 28, 2023



Contents

1. 第四章

(1)



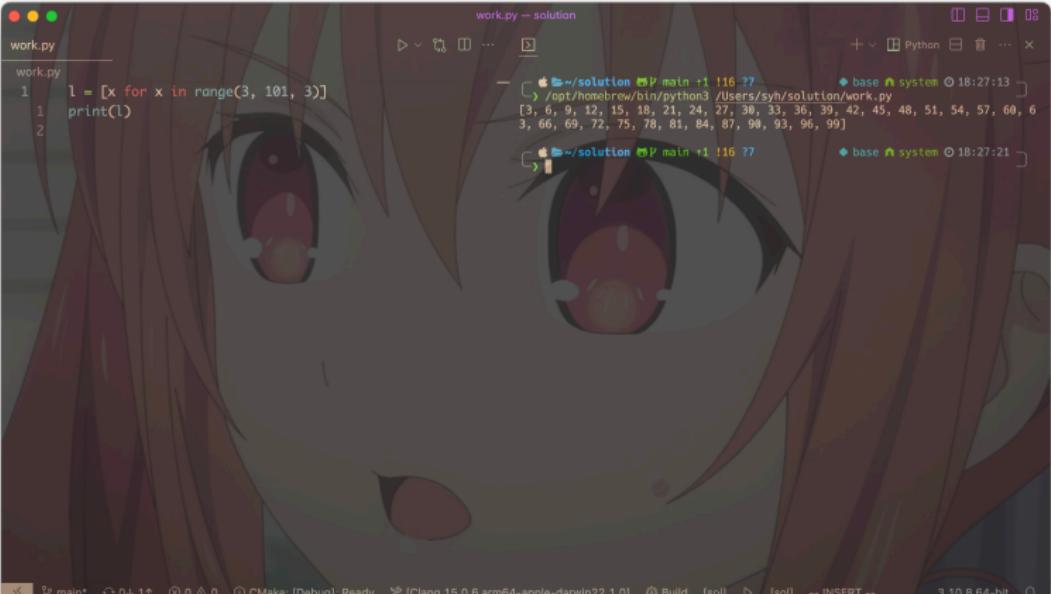
work.py -- solution

```
work.py
work.py
8 l=[54,36,75,28,50]
7 l.append(42)
6 for i in range(0,len(l)):
5   if l[i] == 28:
4     l.insert(i,66)
3     break
2   print(l.pop(l.index(28)))
1 l.sort(reverse=True)
9 l.clear()
```

/opt/homebrew/bin/python3 /Users/syh/solution/work.py
/Users/syh/solution/main.r1 base system 18:23:34
28
/opt/homebrew/bin/python3 /Users/syh/solution/work.py
/Users/syh/solution/main.r1 !16 ??

3.10.8 64-bit

(2)



work.py -- solution

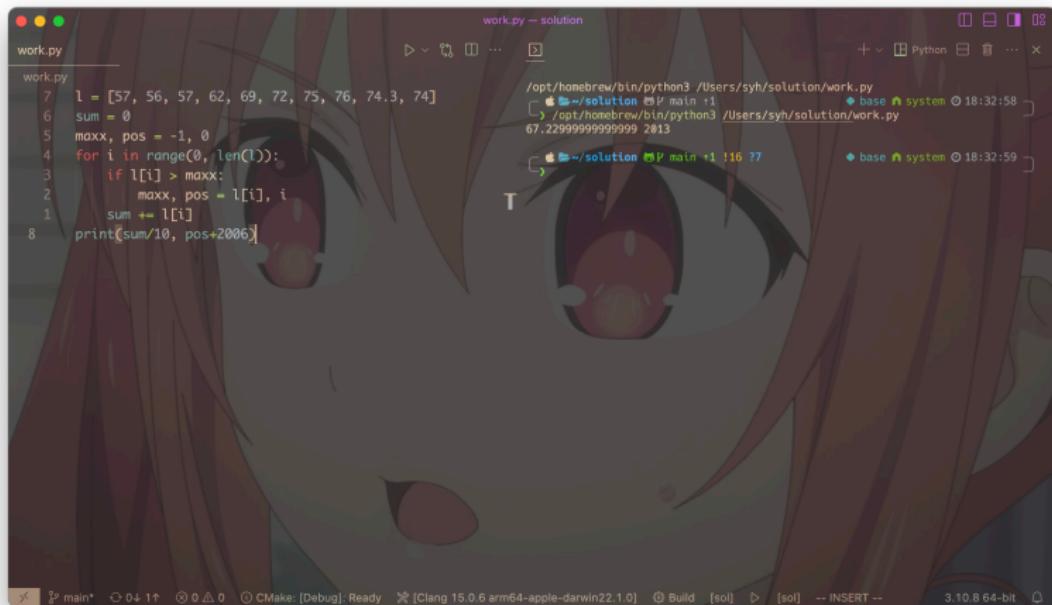
```
work.py
work.py
1 l = [x for x in range(3, 101, 3)]
1 print(l)
2
```

```
~/solution main +! 16 -? ◆ base ✘ system ⌂ 18:27:13
└ /opt/homebrew/bin/python3 /Users/syh/solution/work.py
[3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 6
3, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99]
```

```
~/solution main +! 16 -? ◆ base ✘ system ⌂ 18:27:21
>
```

3.10.8 64-bit

(3)



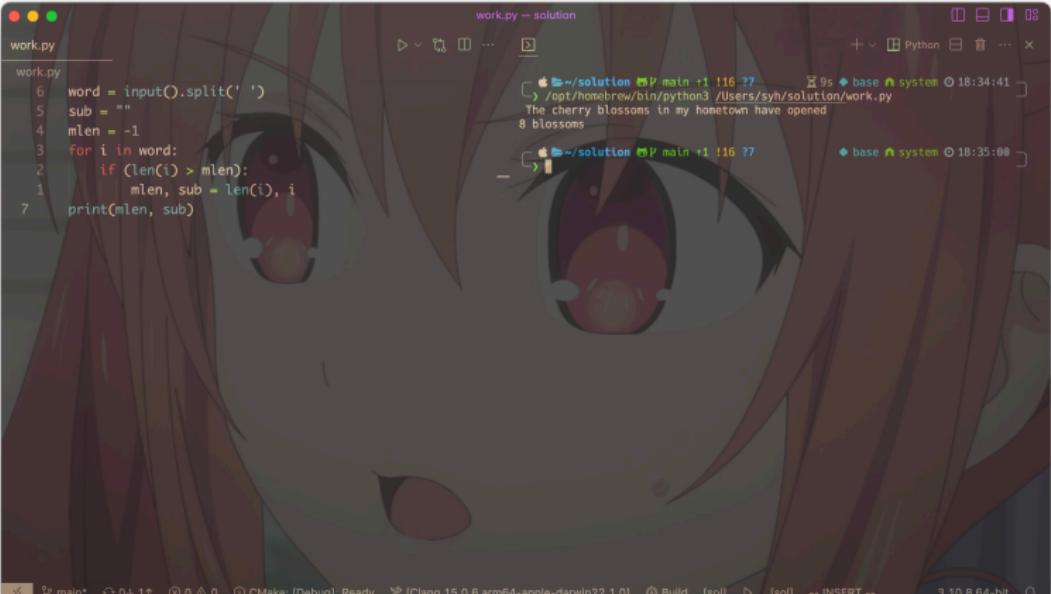
work.py -- solution

```
work.py
1  l = [57, 56, 57, 62, 69, 72, 75, 76, 74.3, 74]
2  sum = 0
3  maxx, pos = -1, 0
4  for i in range(0, len(l)):
5      if l[i] > maxx:
6          maxx, pos = l[i], i
7  sum += l[i]
8  print(sum/10, pos+2006)
```

/opt/homebrew/bin/python3 /Users/syh/solution/work.py
└─ ↵ ~/solution └─ main +1 ◆ base ✘ system ⚡ 18:32:58
 ↳ ./opt/homebrew/bin/python3 /Users/syh/solution/work.py
67.22999999999999 2013
└─ ↵ ~/solution └─ main +1 !16 ?? ◆ base ✘ system ⚡ 18:32:59
 ↳

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(4)



work.py -- solution

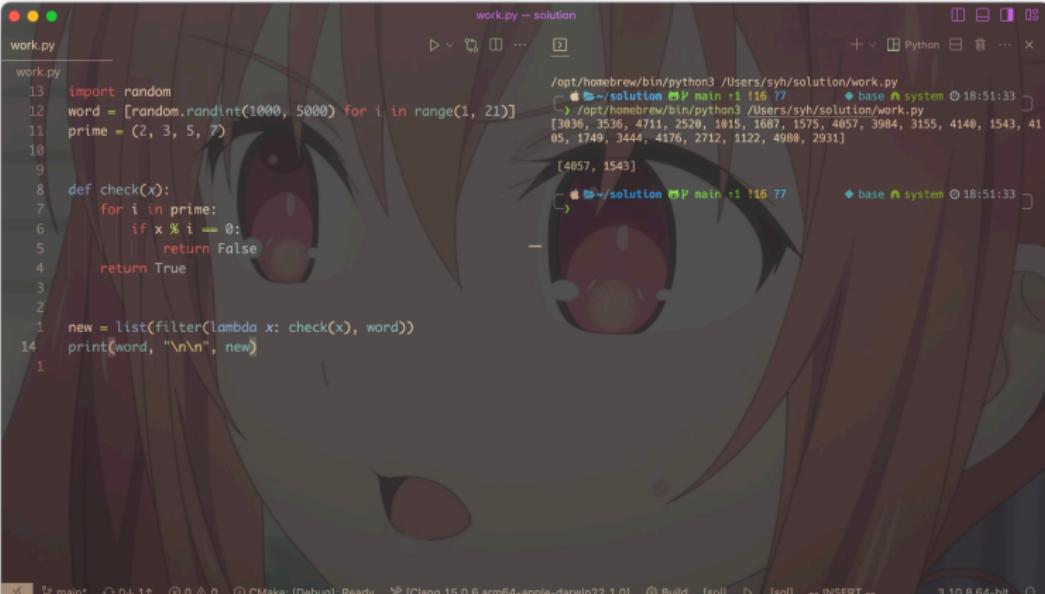
```
work.py
word = input().split(' ')
sub = ""
mlen = -1
for i in word:
    if (len(i) > mlen):
        mlen, sub = len(i), i
print(mlen, sub)
```

base system 18:34:41
/opt/homebrew/bin/python3 /Users/syh/solution/work.py
The cherry blossoms in my hometown have opened
8 blossoms

base system 18:35:00

main* Clang 15.0.6 arm64-apple-darwin22.1.0 Build [sol] [sol] -- INSERT -- 3.10.8 64-bit

(5)



work.py -- solution

```
work.py
13 import random
12 word = [random.randint(1000, 5000) for i in range(1, 21)]
11 prime = (2, 3, 5, 7)
10
9
8 def check(x):
7     for i in prime:
6         if x % i == 0:
5             return False
4     return True
3
2
1 new = list(filter(lambda x: check(x), word))
14 print(word, "\n\n", new)
1
```

/opt/homebrew/bin/python3 /Users/syh/solution/work.py
~/solution main:1 !16 ?? ◊ base ◊ system ◊ 18:51:33
[3836, 3536, 4711, 2520, 1015, 1687, 1575, 4057, 3984, 3155, 4140, 1543, 4105, 1749, 3444, 4176, 2712, 1122, 4988, 2931]
[4057, 1543]
~/solution main:1 !16 ?? ◊ base ◊ system ◊ 18:51:33

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(6)

The screenshot shows a macOS desktop environment. In the center is a terminal window titled "work.py — solution" with the command "ls" running. To the left is a code editor window for "work.py". The code defines variables for projects, names, and gender counts, then prints报名情况 (registration status) for each person across different projects.

```
work.py — solution
ls
+ Python system 20:01:53
base
/opt/homebrew/bin/python3 /Users/syh/solution/work.py
工作项目的人数4
女生报名情况:
李丽 3000m 跳高
陈晓梅 跳远
3000m 报名情况
陈晓梅 女
孙洪涛 男
方亮 男
3000m 报名情况
3000m 报名情况
+ Python system 20:01:54
base
3.10.8 64-bit
```

```
work.py
19 project = ("100m", "3000m", "跳远", "跳高")
20 name = ("王平", "李丽", "陈晓梅", "孙洪涛", "方亮")
21 male = (1, 0, 0, 1, 0)
22 Case = [[1, 1, 0, 0], [0, 1, 0, 1], [0, 0, 1, 0], [0, 1, 1, 1],
23          [1, 0, 1, 0]]
24
25 num = 0
26 for p in Case:
27     if sum(p) >= 2:
28         num = num+1
29 print("超过两项的人数"+str(num)+"\n\n"+"女生报名情况:")
30
31 for i in range(0, len(Case)):
32     if male[i] == 0:
33         print(name[i], end=' ')
34     for j in range(0, len(Case[i])):
35         if (Case[i][j] == 1):
36             print(project[j], end=' ')
37     print(end='\n')
38 print("\n\n"+"3000m 报名情况")
39
40 for i in range(0, len(Case)):
41     if Case[i][2] == 1:
42         print(name[i],"男" if male[i]==1 else "女",sep=' ',end='\n')
```