Python语言基础与应用

上机练习：体验 Python 程序

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输入代码并运行成功

> 注意对齐和缩进

> 注意字母大小写、空格

> 注意左右括号的配对

```python
# 输入某年某月某日，判断这一天是这一年的第几天？
import datetime

dtstr = input('Enter the datetime:(20170228):')
dt = datetime.datetime.strptime(dtstr, "%Y%m%d")
another_dtstr = dtstr[:4] + '0101'
another_dt = datetime.datetime.strptime(another_dtstr, "%Y%m%d")
print(int((dt - another_dt).days) + 1)
```

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```python
#输入一行字符，分别统计出其中英文字母、空格、数字和其它字符的个数。
import string

s = input('input a string:')
letter = 0
space = 0
digit = 0
other = 0
for c in s:
    if c.isalpha():
        letter+=1
    elif c.isspace():
        space+=1
    elif c.isdigit():
        digit+=1
    else:
        other+=1
print('There are %d letters,%d spaces,%d digits \
and %d other characters in your string.'\
        %(letter,space,digit,other))
```

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```
1   # merge sort
2   # 归并排序
3   import random
4
5
6   def merge_sort(data_list):
7       if len(data_list) <= 1:
8           return data_list
9       middle = int(len(data_list) / 2)
10      left = merge_sort(data_list[:middle])
11      right = merge_sort(data_list[middle:])
12      merged = []
13      while left and right:
14          merged.append(left.pop(0) if left[0] <= right[0] else right.pop(0))
15      merged.extend(right if right else left)
16      return merged
17
18
19  data_list = [random.randint(1, 100) for _ in range(50)]
20  print(merge_sort(data_list))
```

输入代码并运行成功

```python
# 猜数字游戏
import random

secret = random.randint(1, 100)
print('''猜数游戏!
我想了一个1-100的整数, 你最多可以猜6次,
看看能猜出来吗? ''')
tries = 1
while tries <= 6:
    guess = int(input("1-100的整数, 第%d次猜, 请输入: " % (tries,)))
    if guess == secret:
        print("恭喜答对了! 你只猜了%d次! \n就是这个: %d! " % (tries, secret))
        break
    elif guess > secret:
        print("不好意思, 你的数大了一点儿! ")
    else:
        print("不好意思, 你的数小了一点儿! ")
    tries += 1
else:
    print("哎呀! 怎么也没猜中! 再见! ")
```