

金融计算与编程第六周学习笔记

1. 把 environment.yml 文件复制到 week06，字符串不能比较，要转换成整数。

```
MINGW64/c/Users/ASUS/repo/week06
-rw-r--r-- 1 ASUS 197121 91 Apr 13 14:48 environment.yml
-rw-r--r-- 1 ASUS 197121 1374 Apr 13 14:59 guessing_game.py
(week06)
ASUS@%:~$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出):
输入无效，请输入一个整数。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 1
猜的数字太小了，再试试。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 15
猜的数字太小了，再试试。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 20
猜的数字太小了，再试试。
(第 5 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 30
猜的数字太大了，再试试。
(第 6 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 25
猜的数字太大了，再试试。
(第 7 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 24
恭喜你，猜对了！
游戏结束，再见。
(week06)
ASUS@%:~$
```

```
MINGW64/c/Users/ASUS/repo/week06
可以开始猜啦。")
10
11 while True:
(Pdb) n
> c:\users\asus\repo\week06\guessing_game.py(6)guessing_game()
-> secret_number = random.randint(1, 100)
(Pdb) l
1 import random
2
3
4 def guessing_game():
5     # 生成 1 到 100 之间的随机整数
6     secret_number = random.randint(1, 100)
7     n = 0
8
9     print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你
可以开始猜啦。")
10
11 while True:
(Pdb) p random.randint(1, 100)
97
(Pdb) p random.randint(1, 100)
25
(Pdb)
```

2. 函数没有返回值，没有 return。

```
MINGW64/c/Users/ASUS/repo/week06
(week06)
ASUS@%:~$ python myjob.py
(week06)
ASUS@%:~$ python mylib.py
(week06)
ASUS@%:~$ python mylib.py
(week06)
ASUS@%:~$ python mylib.py
(week06)
ASUS@%:~$ python mylib.py
(week06)
ASUS@%:~$ python myjob.py
0.0710678118654755
(week06)
ASUS@%:~$ python myjob.py
0.0710678118654755
None
(week06)
ASUS@%:~$
```

不能有两个 return。

```
12
13
14 def func2_2():
15     x = 70
16     y = x**0.5 - 7
17     print(y)
18     return y
19     return y + 1
20
```

位置形参里面得给数。可以按照位置形参传，也可以按照命名形参传。位置参数必须排在命名参数之前。/会限定前面的只能按照位置传实参。* 限定只接受命名实参的形参。

```
13
14 y = mylib.func3(45)
15 print(y)
16

29 y = mylib.func4(48)
30 print(y)
31
32 y = mylib.func4(x=49)
33 print(y)
34
```

```
name: Alice
age: 25
city: New York
第一个位置形参的值: 10
第二个位置形参的值: 20
命名形参的值: default
第一个位置形参的值: 30
第二个位置形参的值: 40
命名形参的值: custom
第一个位置形参的值: 50
第二个位置形参的值: 60
命名形参的值: new value
第一个命名实参: 10
第二个命名实参: 20
第三个命名实参: 30
第一个命名实参: 100
第二个命名实参: 200
第三个命名实参: 默认值
第一个位置形参的值: 7
第二个位置形参的值: 8
命名形参的值: 9
(week06)
ASUS@%C MINGW64 ~/repo/week06 (main)
$
```

3. 类型注解没有什么约束力。

```
drwxr-xr-x 1 ASUS 197121 0 Apr 13 22:55 __pycache__/
-rw-r--r-- 1 ASUS 197121 91 Apr 13 14:48 environment.yml
-rw-r--r-- 1 ASUS 197121 1373 Apr 13 16:52 flow_controls.py
-rw-r--r-- 1 ASUS 197121 1374 Apr 13 14:59 guessing_game.py
-rw-r--r-- 1 ASUS 197121 2105 Apr 13 22:54 mylib.py
drwxr-xr-x 1 ASUS 197121 0 Apr 14 12:32 scripts/

(base) ASUS@%C MINGW64 ~/repo/week06 (main)
$ conda activate week06
(week06)
ASUS@%C MINGW64 ~/repo/week06 (main)
$ python scripts/myjob.py
Traceback (most recent call last):
  File "C:\Users\ASUS\repo\week06\scripts\myjob.py", line 1, in <module>
    import mylib # noqa: F401
    ^^^^^^^^^^^^^
ModuleNotFoundError: No module named 'mylib'
(week06)
ASUS@%C MINGW64 ~/repo/week06 (main)
$ pwd
/c/Users/ASUS/repo/week06
(week06)
ASUS@%C MINGW64 ~/repo/week06 (main)
$
```

4. 小版本升级一般有就赶紧升，一般是修复 bug，大版本一定要小心。

```
1 [project]
2 name = "mypackage"
3 version = "3.12.24"
4 dependencies = [
5     "httpx",
6     "gidgethub[httpx]>4.0.0",
7     "django>2.1; os_name != 'nt'",
8     "django>2.0; os_name == 'nt'",
9 ]
```

5. 安装不了:

```
ASUS@%C:~$ MINGW64 ~/repo/week06 (main)
$ pip install -e .
Looking in indexes: https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Obtaining file:///C:/Users/ASUS/repo/week06
Installing build dependencies ... done
Checking if build backend supports build_editable ... done
Getting requirements to build editable ... done
Installing backend dependencies ... done
Preparing editable metadata (pyproject.toml) ... done
INFO: pip is looking at multiple versions of mypackage to determine which version is compatible with other requirements. This could take a while.
ERROR: Could not find a version that satisfies the requirement openpyxl (from mypackage) (from versions: none)
ERROR: No matching distribution found for openpyxl
(week06)
```

采用 `pip install openpyxl`, `pip install -e .` 解决了问题。

```
ASUS@%C:~$ MINGW64 ~/repo/week06 (main)
$ pip install openpyxl
$ pip install -e .
Looking in indexes: https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Collecting openpyxl
  Downloading https://mirrors.tuna.tsinghua.edu.cn/pypi/web/packages/c0/da/977de
d879c29cbd04de313843e76868e6e13408a94ed6b987245dc7c8506/openpyxl-3.1.5-py3-n
one-any.whl (250 kB)
Collecting et-xmlfile (from openpyxl)
  Downloading https://mirrors.tuna.tsinghua.edu.cn/pypi/web/packages/c1/8b/5fe2c
c11fee489817272089c4203e679c63b570a5aaeb18d852ae3cbb6a/et_xmlfile-2.0.0-py3-non
e-any.whl (18 kB)
Installing collected packages: et-xmlfile, openpyxl
Successfully installed et-xmlfile-2.0.0 openpyxl-3.1.5
Looking in indexes: https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Obtaining file:///C:/Users/ASUS/repo/week06
Installing build dependencies ... done
Checking if build backend supports build_editable ... done
Getting requirements to build editable ... done
Installing backend dependencies ... done
Preparing editable metadata (pyproject.toml) ... done
Requirement already satisfied: openpyxl in c:\users\asus\anaconda3\envs\week06\l
ib\site-packages (from mypackage==0.1.1) (3.1.5)
Requirement already satisfied: et-xmlfile in c:\users\asus\anaconda3\envs\week06
\lib\site-packages (from openpyxl->mypackage==0.1.1) (2.0.0)
Building wheels for collected packages: mypackage
  Building editable for mypackage (pyproject.toml) ... done
  Created wheel for mypackage: filename=mypackage-0.1.1-py3-none-any.whl siz
e=7210 sha256=908f4d4f40e64ac2e8b489654ffe19f5e1807b536507c02cfe4a328f9c4225a8
  Stored in directory: C:\Users\ASUS\AppData\Local\Temp\pip-ephem-wheel-cache-ng
cj8j9l\wheels\cf\ab\9e\6216aa09147a6b84d286b9eb9c7b60732b5f117cc7ddaceb28
Successfully built mypackage
Installing collected packages: mypackage
Successfully installed mypackage-0.1.1
(week06)
```