

第四周 《强大的数据结构和 Python 扩展库》

Quiz:

◆ 以下不能作为字典的 **key** 的是哪一个选项？ 答案 C

- (A) 1001
- (B) 'name'
- (C) listA = ['className']
- (D) tupleA = (123)

解析 C: 字典的 **key** 必须是不可变的, 而 **list** 是可变的

◆ 判断如下陈述是否正确？ 答案 T

字典自带的 **copy** 函数实际上是浅拷贝 (**shallow copy**)，对于字典的每一个键值对，保有值本身，而不是新开辟内存存储每一个键值对的副本。

解析: 可以用类似以下的代码进行测试:

```
>>> d1 = {1:'a',2:'b'}
>>> d2 = d1.copy()
>>> d2
{1:'a',2:'b'}
>>> d1 is d2
False
```

◆ 请在下面空格处填写答案（请将结果分两行写）。

```
>>> from pandas import Series, DataFrame
>>> data = {'language': ['Java', 'PHP', 'Python', 'R', 'C#'],
           'year': [ 1995 , 1995 , 1991 ,1993, 2000]}
>>> frame = DataFrame(data)
>>> frame['IDE'] = Series(['Intellij', 'Notepad', 'IPython', 'R studio', 'VS'])
>>> 'VS' in frame['IDE']

_____
>>> frame.ix[2]
language      Python
year
IDE           IPython
Name: 2, dtype: object
```

答案 False

1991

解析: `frame['IDE']`的结果是一个 **Series** (`'VS' in frame['IDE'].values` 结果为 **True**)，`frame['IDE'][4]`的结果才是 **'VS'**。

编程题参考程序

◆ 5 名某界大佬 QQ 号查询

in Python 2

```
dict1 =
{'xiaoyun':88888,'xiaohong':5555555,'xiaoteng':11111,'xiaoyi':12341234,'xiaoyang':1212121}
```

```
name = raw_input("Please input the name:")
```

```
while(1):
```

```
    if dict1.get(name):
```

```
        print dict1[name]
```

```
        break
```

```
    else
```

```
        print 'Enter the name again. '
```

```
listV = dict1.values()
```

```
listK = dict1.keys()
```

```
print "Who has the nice QQ number?"
```

```
for i in range(0,len(listV)):
```

```
    if listV[i] < 100000:
```

```
        print listK[i]
```

```
# in Python 3
```

```
dict1 =
```

```
{'xiaoyun':88888,'xiaohong':5555555,'xiaoteng':11111,'xiaoyi':1234321,'xiaoyang':1212121}
```

```
name = input("Please input the name:")
```

```
while(1):
```

```
    if dict1.get(name):
```

```
        print(dict1[name])
```

```
        break
```

```
    else
```

```
        print('Enter the name again. ')
```

```
print("who has the nice number?")
```

```
for (key, value) in dict1.items():
```

```
    if(value < 100000):
```

```
        print(key)
```