

# Python Talk 2

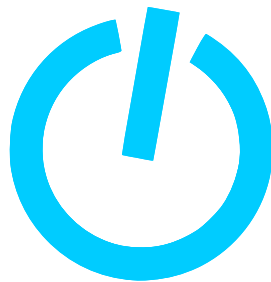


# 复习

- 计算下列数值
  - 一百加二十
  - 一天有多少秒
  - 真或假
  - 三的一百次方

- 答案

- $100 + 20$
- $24 * 60 * 60$
- `True or False`
- $3 ** 100$



# 复杂数据类型

- 常用类型

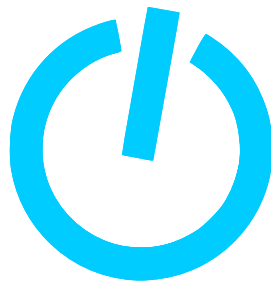
- tuple
- list
- str
- dict

- 举例

- (1, 2, 3)
- ['h', 'c', 'c']
- "HCC, I'm. "
- {1: 'H', 2: 'C'}

# 创建你自己的复杂数据

- (a, b, c)
- [a, b, c]
- 'Some\_Letters'
- {  
    key\_A: value\_A  
    key\_B: value\_B  
}
- 所有元素都可以换成更复杂的类型
  - 基本类型
    - int      float      bool
  - 复杂类型
    - tuple   list
    - str     dict
  - type



# 细节

- 创建一个元素的 tuple
- str 创建方式

- ( 'HCC' ) # 失败

- ( 'HCC' , ) # 正确

- list 和 dict 也支持

- 'HCC, I\'m.'

– "HCC, I'm."

Figure 1 is a schematic representation of the experimental design. It shows a sequence of events: a black bar (stimulus) is presented, followed by three red vertical bars (response). The response is labeled 'Response' and 'Response time'.

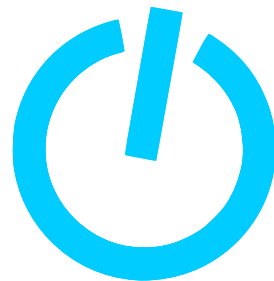
# HCC

□ □ □



# tuple 和 list 有什么区别

- `a = ()`      `#tuple`
- `b = []`      `#list`
- `help(a)`
- `help(b)`
- `# 你能找到区别吗?`
- `insert`
- `pop`
- `remove`
- `reverse`
- `sort`



# 尝试基本运算符

- 加法

- (1, 2) + (5, 6)
- [1, 2] + [5, 6]
- 'HCC' + ", I'm."

- 乘法

- (1, 2) \* 3
- 'HCC' \* 10

- dict 如何合并?

- {1: 2} + {3: 4}

# 失败

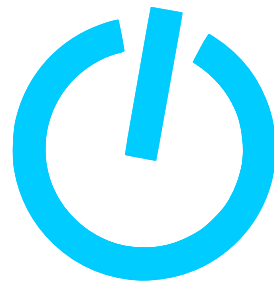
- a = {1: 2}

a.update({3: 4})

a # 正确

# 字符串方法

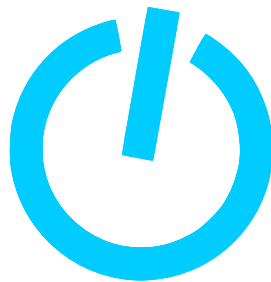
- `"HCC, I'm. ".upper()`
- `"HCC, I'm. ".lower()`
- `"HCC, I'm. ".split()`
- `len("HCC, I'm. ")`
- `'&'.join([1, 2])`
- `'''Hello from HCC:  
Welcome!  
'''`
- `'''`
- `.split('\n')`





# 分割

- `a = [1, 2, 3, 4, 5, 6, 7, 8, 9]`
- `a[4]`
- `a[4: 7]`
- `a[2: -2: 2]`
- `a = 'abcdefghijklmnopqrstuvwxyz'`
  - # 重复上面三行
- `{'a': 'b', 'b': 'c'}['b']`

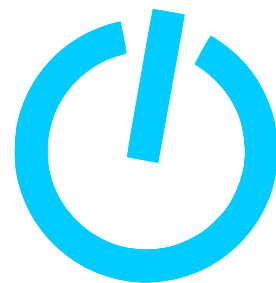


# 原理

H C C , I ' m .

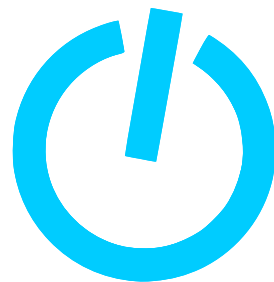
0 1 2 3 4 5 6 7 8

-8 -7 -6 -5 -4 -3 -2 -1



# 尝试

- 对于这些字符串，截取出用户名（ '@' 前面）
  - 'HCC@shiyiquan.net'
  - 'lxy@shiyiquan.net'
  - 'mbl@shiyiquan.net'
  - 'shiyiquan@shiyiquan.net'
- 你能使用两种方式吗？提示：分割和 `split`



# 感谢参加此次活动

