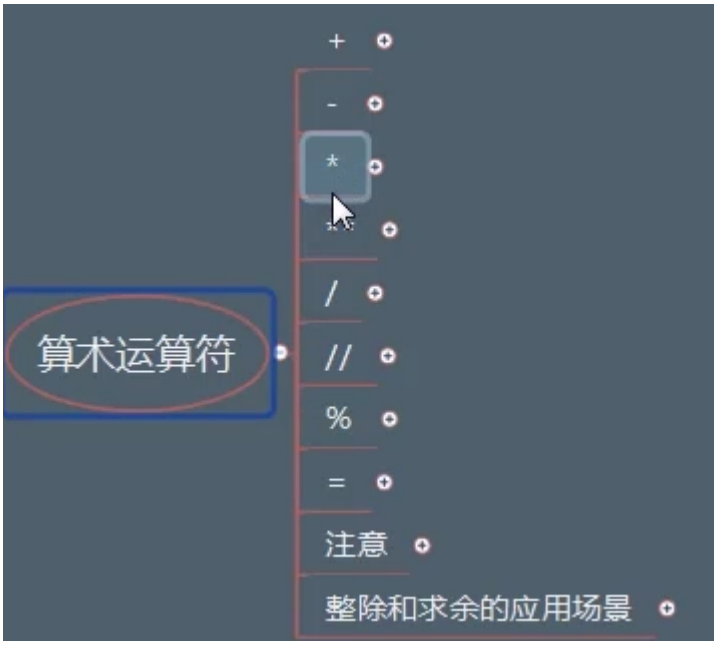
[笔记][LIKE-Python-2][04]

Python

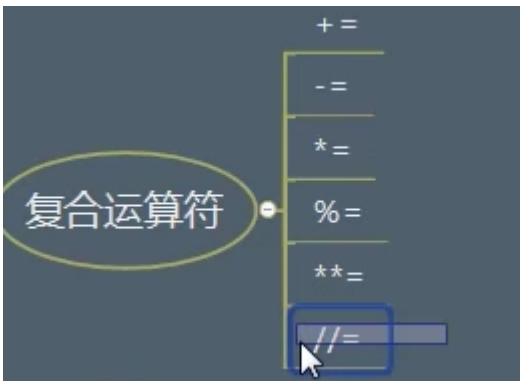
007. Python运算符-算术运算符




```
# 算术运算符

# + 加法运算符
print(1 + 2)
# 加法运算符的重载
print('1' + '2')
# 重载：赋予新的功能
print([1, 2] + [3, 4])

# - 减法运算符
print(4 - 12)
```

```python
# * 乘法运算符
print(2 * 3)

# ** 幂运算符
print(3 * 3 * 3 * 3)
print(3 ** 4)

# / 除法运算符
print(5 / 2)  # 结果是浮点数
# ZeroDivisionError 除零错误

# // 地板除运算符（jpch89：向下取整运算符）
print(5 // 2)
print(5.2 // 2)  # 2.0
print(-5.2 // 2)  # -3.0

# % 求模运算符（求余运算符）
print(5 % 2)
print(10 % 4)

# = 赋值运算符
a = 10
a, b, c = 10, 20, 30
# 链式赋值
a = b = c = 3

# 注意：
# 除零问题
# 优先级和小括号()的使用

# 整除和求余的应用场景
# 求行和列
# 一共10个数，从0开始，排成4行4列
num = 6
row = num // 4  # 第2行
col = num % 4  # 第2列
```

008. Python运算符-复合运算符




```
num = 10
result = num + 5
num = result
print(num)

# 更简单
num = 10
num = num + 5
print(num)

# 最简单
num = 10
num += 5
print(num)

# *=
num = 10
num *= 10
print(num)

# **=
num = 10
num **= 10
print(num)
```

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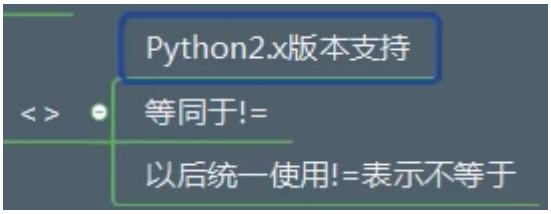
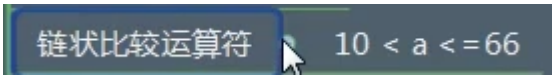
009. Python运算符-比较运算符






```
# 10是否大于2，结果是布尔类型
result = 10 > 2
print(result)

# 不等于
result = 10 != 2
print(result)

# 大于或者等于
result = 10 <= 10
print(result)

# 是否相等
result = 10 == 10
print(result)

# 比对唯一标识
a = 10
# 查看 a 的唯一标识
print(id(a))
# == 比较值
# is 比较唯一标识
b = 10
print(id(b))
```

```
print(a is b)

a = [1]
b = [1]
print(a == b)
print(a is b)
print(id(a), id(b))

# 链式比较运算符
num = 10
# 其它语言的写法:
# num > 5 && num < 20
# Python的写法:
print(5 < num < 20)
```

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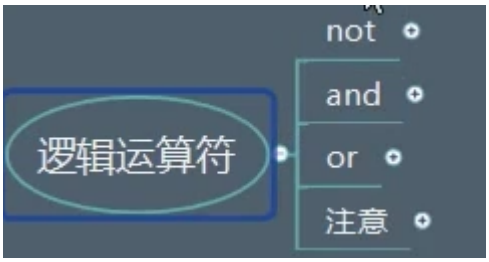
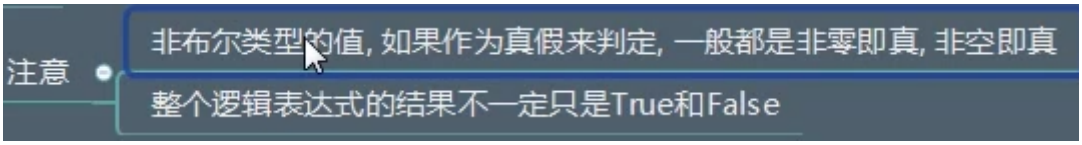
010. Python运算符-逻辑运算符






```
b = True

# not 非
print(b)
print(not b)

# and 与（并且）
# 规律：一假全假
# 注意：短路逻辑
print(True and False)

# or 或（或者）
# 规律：一真全真
# 注意：短路逻辑
print(True or False)

# 对于非布尔类型的判断：非零即真，非空即真
```

```
print(bool(1))
print(bool('0'))  # 这个也是真，因为字符串非空!

# 整个逻辑表达式的结果不一定只是True和False
print(100 or False)  # 返回第一个表达式的结果
print(1 and 3)  # 求值到哪个表达式，就返回该表达式的结果
print('哈哈哈' or 3)  # 得到 '哈哈哈'
print(0 or False)  # 得到 False
print(0 or False or 6)  # 得到 6

# and 和 or 可以不断往后写
```

完成于 `201810271303`