Dog

Animal

Cat

Poodle

Retriever

Animal

Attribute(s)

has limbs

Behavior(s)

moves

makes sounds

Cat

Attribute(s)

has 4 legs

Behavior(s)

runs, walks

purrs

Dog

Attribute(s)

has 4 legs

Behavior(s)

runs, walks

barks

Bird

Attribute(s)

has 2 legs

Behavior(s)

flies

chirps

Higher Level

Lower Level

**∴Short-Circuit**

**False and oper2**

**False and False**

**= False**

**False and True**

**= False**

If **oper2** is **True**

If **oper2** is **False**

**False and oper2 = False**

**∴Short-Circuit**

**True or oper2 = True**

**True or oper2**

**True or False**

**= True**

**True or True**

**= True**

If **oper2** is **True**

If **oper2** is **False**

**1**

a

**…176**

**5**

**2**

a

**…176**

**5**

b

**3**

a

**…176**

**…208**

**5**

b

**6**

**Variables**

**Memory**

**Memory**

**Variables**

>>> a = 5

>>> b = a

>>> a = a + 1

**1**

a

**…656**

**[1, 2, 3]**

**2**

a

**…656**

b

**3**

a

**…656**

b

**[1, 2, 3]**

**[1, 10, 3]**

**Variables**

**Variables**

**Memory**

**Memory**

>>> a = [1, 2, 3]

>>> a = b

>>> a[1] = 10

**1**

**2**

**3**

**4**

**5**

**1**

**2**

**3**

**4**

**5**

**0**

**1**

**2**

**3**

**4**

**-1**

**-2**

**-3**

**-4**

**-5**

**'Alice'**

**'Bill'**

**'Charlie'**

**'Zoe'**

**...**

**1**

**2**

**3**

**26**

**...**

**'Alice'**

**'Bill'**

**'Charlie'**

**'Zoe'**

**...**

**0**

**1**

**2**

**25**

**...**