In [1]:
```python
# 1. local
# 2. enclosed
# 3. global
# 4. built.in
```

In [2]:
```python
# 1. local
def fun():
    local_val = 10
    print(local_val)
```

In [3]:
```python
local_val
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-3-8364cbc27679> in <module>
----> 1 local_val

NameError: name 'local_val' is not defined
```

In [4]:
```python
fun()
```

```
10
```

In [5]:
```python
local_val
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-5-8364cbc27679> in <module>
----> 1 local_val

NameError: name 'local_val' is not defined
```

In [6]:
```python
# # 2. enclosed_val
def outer():
    enclosed_val = 10
    def inner():
        print(enclosed_val)
    return inner
```

In [8]:
```python
outer()()
```

```
10
```

In [9]:
```python
# 3. Global
g_val = 100
def fun():
    print(g_val)
```

In [10]:
```python
fun()
```

100

In [11]:
```python
# 3. Global
g_val = 100
def fun():
    g_val = 200
    print(g_val)
```

In [12]:
```python
fun()
```

200

In [13]:
```python
g_val
```

Out[13]: 100

In [14]:
```python
# 3. Global
g_val = 100
def fun():
    global g_val
    g_val = 200
    print(g_val)
```

In [15]:
```python
g_val
```

Out[15]: 100

In [16]:
```python
fun()
```

200

In [17]:
```python
g_val
```

Out[17]: 200

In [18]:
```python
# 4. buit.in
len("hellow")
```

Out[18]: 6

In [ ]: