

---

## 5.Static

1. Define a static variable and access that through a class
2. Define a static variable and access that through a instance
3. Define a static variable and change within the instance
4. Define a static variable and change within the class



main.py

Shell



```
1  # 1st program...
2  class MyClass:
3      static_variable = 10
4
5      def __init__(self):
6          self.instance_variable = 20
7
8      def print_variables(self):
9          print("Static variable:",
10               MyClass.static_variable)
11          print("Instance variable:",
12                self.instance_variable)
13
14  obj = MyClass()
15  obj.print_variables()
16
```



main.py

Shell



Static variable: 10

Instance variable: 20

> |



main.py

Shell



```
1  # 2nd program...
2  class MyClass:
3      static_variable = 100
4
5      def __init__(self):
6          self.instance_variable = 150
7
8      def print_variables(self):
9          print("Static variable:",
10              MyClass.static_variable)
11          print("Instance variable:",
12              self.instance_variable)
13
14  obj = MyClass()
15  obj.print_variables()
16
```



main.py

Shell



Static variable: 100

Instance variable: 150

> |



main.py

Shell



```
1  # 3rd program...
2
3  class MyClass:
4      static_variable = 10
5
6      def __init__(self):
7          self.instance_variable = 20
8
9      def change_static_variable(self):
10         MyClass.static_variable = 100
11
12
13  obj = MyClass()
14  obj.change_static_variable()
15
16  print(MyClass.static_variable)
17  |
```



main.py

Shell



100

>





main.py

Shell



```
1  # 4th program...
2  class MyClass:
3      static_variable = 10
4
5      def change_variable(self):
6          MyClass.static_variable = 20
7
8
9  obj = MyClass()
10 print(MyClass.static_variable)
11 obj.change_variable()
12 print(MyClass.static_variable)
13
14
```





main.py

Shell



10

20

> |