L06

February 20, 2024

[11]:
```
# data types
# int
# float
# bool
# str      len(), list(), .lower()
# type(), int(), float(), bool(), str()
# comparison operators: > < == !=
# assignment: = += -= *= **= >= <= /= %=
```

[12]:
```
x="welcome"
```

[13]:
```
x[0]
# x[start=0:end:step=1]
x[:5]
x[:]
x[::2]
x[::-1]
```

[13]:
```
'emoclew'
```

[14]:
```
len(x)
```

[14]:
```
7
```

[23]:
```
x='        hello everyone... today is Thursday.        '
x.lower()
x.title()
x.upper()
x.lstrip()
x.strip()
x.swapcase()
x.find('is')
x.count('is')
```

[23]:
```
1
```

[26]:
```
# len(), type(), list(), ...
# import math
# math.sin(45)

# import math as ma
# ma.sin(45)

# from math import sin
# sin(45)

# from math import *
# sin(45)
```

[33]:
```
# print(x,y,z, "thank you")
x=78.5
print("%d"%x)
y=6
print("The value of y is:%20.2f"%y)
```

```
78
The value of y is:                 6.00
```

[38]:
```
# Data structure
# list +, *, in, len(), [], [slice]
```

[39]:
```
x=list()
x=[]
x=[10,4,5,6,7,3, 'welcome', True, 87.44444]
```

[44]:
```
L1=[1,2,3]
L2=['welcome','hi', False]
L1+L2
'welcome' in L1
L2[-1]
```

[44]:
```
False
```

[46]:
```
L3=L1+L2
L3
```

[46]:
```
[1, 2, 3, 'welcome', 'hi', False]
```

[49]:
```
# L3[start:end:step]
L3[1:3]
L3[5:1:-1]
L3[::-1]
```

[49]:
```
[False, 'hi', 'welcome', 3, 2, 1]
```

[53]:
```
L=[1,2,3, ['a',True], ['welcome', 123456], [5,6,[3,4]]]
L[-1]
len(L)
```

[53]:
```
6
```

[55]:
```
len(L[2:6])
```

[55]:
```
4
```

[60]:
```
# Copy
L1=[1,2,3]
L2=[4,5]
L3=[L1, L2]
L4=L3
```

[61]:
```
L1[0] = 500
```

[65]:
```
L3
```

[65]:
```
[[500, 2, 3], [4, 5]]
```

[66]:
```
L4
```

[66]:
```
[[500, 2, 3], [4, 5]]
```

[67]:
```
L3[1] = 7000
L3
```

[67]:
```
[[500, 2, 3], 7000]
```

[68]:
```
L4
```

[68]:
```
[[500, 2, 3], 7000]
```

[ ]:
```
L4=list(L3)
```

[ ]:
```

```

[64]:
```
import copy
L5=copy.deepcopy(L4)
```

[ ]:
```
L4
```