INTL/QMBU450/550: Advanced Data Analysis in Python

Syntax

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Syntax

- Object types
  - String
  - Int
  - Float
  - List
  - Tuple
  - Dictionary
- Conditionals
- Loop
- Functions

Strings

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```
>>> name='David'
>>> age='34'
>>> intro="Hi my name is "+name+".\nI'm "+age+" years old.
>>> intro
>>> print(intro)
>>> new_intro = """Hello!
... I'm David.
... What's up?"""
>>> new_intro
>>> print(new_intro)
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>>> intro[:2]
>>> intro[:-2]
>>> intro[::2]
>>> intro[::-2]
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>>> myletters=[letter for letter in intro]
>>> ''.join(myletters)
>>> '\n'.join(myletters)
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>>> five=5
>>> five+=1
>>> five
>>> five/=3
>>> five
>>> five-=2
>>> five
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>>> 12.0/5
>>> float(7)
>>> type(2.*8)
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>>> tup=(1,6,5,'Apple')
>>> tup[1]
>>> tup[1]=9
>>> tup.append(9)
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- These are particularly useful when we start defining classes (next class)

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```
>>> even_numbers=[]
>>> for i in range(1,10):
...     if i%2==0:
...         even_numbers.append(i)
...
>>> for letter in 'word': print(letter)
...
>>> sum([.05**i for i in range(1,10)])
>>> while len(myletters)>1:
...     myletters.pop()
...
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- A while loop can always do what a for loop does, but syntax is simpler

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- Change the Fibonacci code to find first n numbers of sequence