Python for Business Analytics (Part 1) Cheat Sheet

by ocivv via cheatography.com/173673/cs/36491/

Data Type

Integer	-100, 0, -100
Float	-100.98, 0.0001, 90.00
String	'Python', '400', '100+200', 'True'
Boolean	True, False

Operators

Numeric		Comparison	
+	Addition	==	Equal
-	Subtra-ction	!=	Different
*	Multpl-ication	>	Higher
/	Division	<	Lower
**	Exponent	>=	Higher or Equal
%	Modulus	<=	Lower or Equal
//	Floor Division		

Boolean		String	
&	Logical AND	+	Concat-enation
|	Logical OR		
not	Logical NOT		

Assignment Statement & Expression

Expression is a combination of values, variables, and operators

222	'text'
25+36	'App' + 'le'

Assignment Statement links a variable name on the left hand side of the operator, with an expression on the right hand side.

a = 222	b = 'text'
c = 25 +36	d = 'App' + 'le'
a = a + 1	

List Operations

Create a List	L1 = [1, 2, 3, 4, 5, 6]
Get the first element	L1[0]
Get the last element	L1[-1]
Count List elements	len()
Insert an element	insert()
Insert an element to the end	append()
Sort all elements	sort()
Remove an element	pop()
Convert object to List	list()

Slicing

Slicing Expression

List Name[start index : stop index : step size]

(Step size is optional)

Examples

2nd - 5th elements	L1[1:5]
2nd - Last elements	L1[1:]
1st - 3rd elements	L1[0:3]
All alternate elements	L1[::2]

Dictionary (Dict.) Operations

Create a Dict.	D1 = {"Andrew":18, "Johnson":23, "Olivia":22}
Create a Dict. from two Lists	dict(zip())
Access Dict. value	D1["Andrew"]
Update Dict. value	D1["Andrew"] = 20
Add an element	D1["Sue"] = 25
Drop an element	del D1["Johnson"]
Count Dict. elements	len()
Return all keys	keys()
Return all values	values()

Tuple Operations

Create a Tuple	T1 = (1, 2, 3, 4, 5, 6)
Convert List to Tuple	tuple()

Note: Tuple elements are immutable and cannot be changed via operations.

Set Operations

Create a Set	S1 = {1, 2, 3, 4, 5}
Insert an element	add()
Find unique elements	set()
Create a Set with all elements from 2 Sets	union()
Create a Set with common elements from 2 Sets	intersect-ion()

List Comprehension

newlist = [expression for variable in sequence if condition]

Conditional Statements

```
if Condition 1:
        Code Block 1
elif Condition 2:
        Code Block 2
elif Condition 3:
        Code Block 3
else:
        Code Block 4
```

for Loops

```
for <variable> in <sequence>:
        Code Block
Example:
for x in range( 0,5):
         pri nt(x)
```


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while Loops

```
while <expression>:
       Code Block
Example:
i = 2
while i <= 10:
        pri nt(i)
       i = i + 3
```

Nested loop

```
for iterating_var in sequence:
       for iterat ing_var in
sequence:
               Code Block1
       Code Block2
while <ex pre ssi on>:
        while <ex pre ssi on>:
               Code Block1
       Code Block2
```

Statements used with Loops

break	Terminate the whole loop
continue	Stop the current iteration of the loop, and continue with the next. Loop does not terminate.
pass	Do nothing and continue the rest of the code inside a loop for the current iteration

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