Python Syntax Guide

Variables / Data Types

Declarations: `var_name = 100`
Integer: `5`
Long: `5L`
Float: `5.0`
Bool: `True, False`
String: `"Hello"`
Tuple: `(3,4,5)`
List: `[3,4,5]`
Dict: `{'a':3, 'b':4}`

Logic

Booleans: `True, False`
Comparisons: `> < >= <= != ==`
If Statements:

```
if (boolean_expression):
    # logic for true
elif (other_expression):
    # logic for second
else:
    # logic for else
```

While Statements:

```
while (bool_expression):
```

Loops:

```
for var in list:
```

Operations

Sum: `a+b`
Difference: `a-b`
Product: `a*b`
Quotient: `a/b`
Floored Quot..: `a//b`
Mod: `a%b`
Power (a^b): `a**b`

Little Things

Semicolons not needed
Whitespace matters
Object Oriented Language

Lists

Indexing: `lst_name[index_number]`
Length: `len(lstName)`
Slicing: `lst_name[start:end]`
Appending: `lst_name.append(obj)`
Removing: `lst_name.remove(obj)`
Range: `xrange(startVal, stopVal)`

Functions

Function Call: `func_name(args)`
Function Defintion: `def func_name(params):`

Classes

Class Definition:

```
class Class_name [SuperClass]:
   // class vars here
def __int__:
   // override init here
def method_name(self, params):
   // method inserted here
```

Object Instantiation:

```
object_ref = Class_name(args)
```

Method Invocation:

```
object_ref.method_name(args)
```

Comments

```
# use hashtag for single lines
"""and triple quotes for multiple
lines"""
```

Command Line

Input: `user_in = raw_input("Msg")`
Output: `print(user_output)`

Equality

Object Equality: `==`
Referencial Equality: `is`