Python Syntax

Declaring variables

```
a = 3
b = "Hello Python!"
c = True
```

Print

```
a = 3
print("There are " + a + " cats.")
```
OUTPUT: There are 3 cats.

Mathematical Operators

a = 3, b = 2
`print(a+b-2)` OUTPUT: 3
`print(a*b)` OUTPUT: 6
`print(a/b)` OUTPUT: 1.5
`print(a%b)` OUTPUT: 1

Comparison Operators

a = 3, b = 2
== equal: `print(a==b)` OUTPUT: False
!= not equal: `print(a!=b)` OUTPUT: True
`>, <, <=, >=`

List

```
names = ["Joel", "Nisa", "Allan"]
print(names)
```
OUTPUT: ['Joel', 'Nisa', 'Allan']
`print(names[0])`
OUTPUT: Joel

Length of the list

`len()` `print(len(names))`
OUTPUT: 3

Add Items

`append()` `names.append("Kyle")`

Dictionaries

```
studentA = {
      "name": "Joel"
      "age": 16
      "parking": False
}
print(studentA)
```
OUTPUT: {'name': 'Joel', 'age': 16, 'parking': False}

```
n = studentA["age"]
print(n)
```
OUTPUT: 16

```
studentA["parking"] = True
print(studentA["parking"])
```
OUTPUT: True

Conditionals (if, else, elif)

```
if a > b:
      print("a is greater than b")
elif a == b:
      print("a and b are equal")
else:
      print("b is greater than a")
```

While loop

```
a, b = 2, 0
while(a > b):
      print(a)
      a = a - 1
```
OUTPUT: 2
1

For loop

```
for i in range(2):
      print(i)
```
OUTPUT: 0
1

Print list items using for loop

```
names = ["Joel", "Nisa", "Allan"]
for i in names:
      print(i)
```
OUTPUT: Joel
Nisa
Allan

Functions

```
def function123():
      print("Function 123")

function123
```
OUTPUT: Function 123