Python Tutorial

Python Comments

```
#This is a comment
print("Hello, World!")
```

Data Types

```
* Text Type: (str)
* Numeric Types: (int, float, complex)
* Sequence Types: (list, tuple, range)
* Mapping Type: (dict)
* Set Types: (set, frozenset)
* Boolean Type: (bool - true/false)
* Binary Type: (bytes, bytearray, memoryview)
* None Type:  (NoneType)
```

Casting

Whith casting we can specify data type of variable

```
int()
frloat()
str()
```

Python Lists

```
myList = ["banana", "kiwi", "orange"]
```

Lists are used to store multiple items in a single variable, List items are ordered, changeable, and allow duplicate values.

```
It is also possible to use the list() constructor when creating a new list.
```

Access Items

```
thislist = ["apple", "banana", "cherry"]
print(thislist[1])
banana
```

Change Item Value

```
hislist = ["apple", "banana", "cherry"]
thislist[1] = "blackcurrant"
print(thislist)
['apple', 'blackcurrant', 'cherry']
```

Append Items

```
thislist = ["apple", "banana", "cherry"]
thislist.append("orange")
print(thislist)
['apple', 'banana', 'cherry', 'orange']
```

Python Tuple

Tuples are used to store multiple items in a single variable.

Tuple is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Set, and Dictionary, all with different qualities and usage.

A tuple is a collection which is ordered and ***unchangeable***

```
thistuple = ("apple", "banana", "cherry")
```

Python Dictionaries

Are used to store data and key:value pairs

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
  }
```

Example output:

```
print(thisdict)
 {'brand': 'Ford', 'model': 'Mustang', 'year': 1964}
```

if else

```
a = 200
b = 33
if b > a:
  print("b is greater than a")
elif a == b:
  print("a and b are equal")
else:
  print("a is greater than b")
```

while loops

```
i = 1
while i < 6:
  print(i)
  i += 1
```

For Loops

```
list = ["one", "two", "three" ]
for x in list
    print(x)
```