Basic Python #4

AI Mentorship

Outline

1. Python: Dictionary
2. Python: Function / Method
3. Python: Function Parameter
4. Python: Function Default Parameter
5. Python: Function Keyword Parameter
6. Python: Function Return Value

Python: Dictionary

A dictionary is a collection which is unordered, changeable and indexed. In Python dictionaries are written with curly brackets, and they have keys and values.

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

Python: Dictionary

Accessing items:

```
x = thisdict["model"]
```

Change value:

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
thisdict["year"] = 2018
```

Loop through a dictionary:

```
for x in thisdict:
  print(x)
```

Python: Function

A function is a block of code which only runs when it is called.
You can pass data, known as parameters, into a function.
A function can return data as a result.

```
def my_function():
  print("Hello from a function")
```

Calling a function:

```
my_function()
```

Python: Function Parameter/Argument

Information can be passed into functions as arguments.

Arguments are specified after the function name, inside the parentheses. You can add as many arguments as you want, just separate them with a comma.

```
def my_function(name):
  print("Hello " + name )

my_function("James")
```

Python: Function Default Parameter

Python allows function arguments to have default values. If the function is called without the argument, the argument gets its default value.
The default value is assigned by using assignment(=) operator.

```
def my_function(name=""):
  print("Hello " + name )

my_function("James")
```

Python: Function Keyword Parameter

You can also send arguments with the key = value syntax.
This way the order of the arguments does not matter.

```
def my_function(child3, child2, child1):
  print("The youngest child is " + child3)

my_function(child1 = "Emil", child2 = "Tobias", child3 = "Linus")
```

Python: Function Return Value

To let a function return a value, use the return statement:

```
def my_function(x):
  return 5 * x

print(my_function(3))
print(my_function(5))
print(my_function(9))
```