Functions

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What is a function?

a function is a group of related statements that performs a specific task. Functions make our program more organized and manageable by dividing it into smaller and modular chunks.

A function is a block of code that only runs when it is called

How to make a function

To define a function, use the command "def {function name}():"

Then, press tab and implement what you want your function to do.

To call the function, simply type "{function name}()" and the function will print out.

```
1   def Hello():
2       print("Hello")
3       print("How are you?")
4
5   Hello()
```
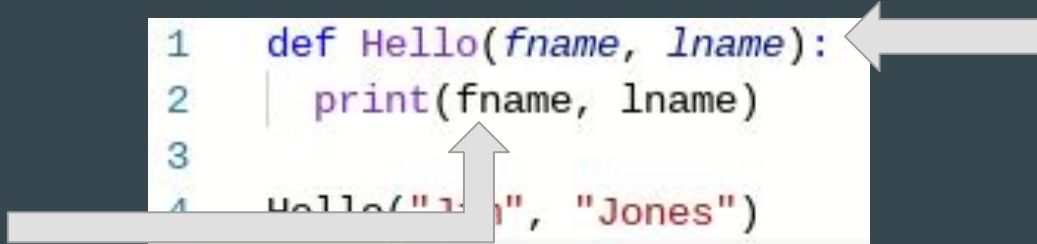
Parameters/Arguments

Parameters are the variables listed inside the parentheses in the function definition.

Arguments are the values that are sent to the function when it is called.

```
1   def Hello(fname, lname):
2      print(fname, lname)
3
4   Hello("1  ", "Jones")
5
6
```
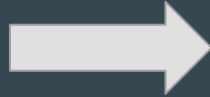
Parameters

Arguments:

Extra Rule:

The Number of Parameters MUST always equal the number of arguments, or else the code will not work.

For Example:

```python
1  def Hello(fname, lname):
2      print(fname, lname)
3
4  Hello("Jim")
5
```

```
File "main.py", line 4, in <module>
    Hello("Jim")
TypeError: Hello() missing 1 required positional argument: 'lname'
>
```

Lab:

1. Create a function that prints out an imputed phrase x amount of times
2. Make sure to use loops!

Lab Output:

```
What phrase do you want to be repeated?
I like Pizza!
I like Pizza!
I like Pizza!
I like Pizza!
I like Pizza!
I like Pizza!
>
```