CSD325: Advanced Python
Module 7.2 Assignment: Test Cases
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Starting with stub function returning None:

```
(venv) [falkreon@Circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
F
======================================================================
FAIL: test_two_args (__main__.TestCityFunctions.test_two_args)
----------------------------------------------------------------------
Traceback (most recent call last):
  File "/home/falkreon/Documents/Class/AdvancedPython/CSD-325/module-7/test_cities.py", line 6, in test_two_args
    self.assertEqual(city_name("Santiago", "Chile"), "Santiago, Chile")
AssertionError: None != 'Santiago, Chile'

----------------------------------------------------------------------
Ran 1 test in 0.000s

FAILED (failures=1)
```

Implementing the function:

```
(venv) [falkreon@Circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
.
----------------------------------------------------------------------
Ran 1 test in 0.000s

OK
```

Adding an argument:

```
(venv) [falkreon@Circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
E
======================================================================
ERROR: test_two_args (__main__.TestCityFunctions.test_two_args)
----------------------------------------------------------------------
Traceback (most recent call last):
  File "/home/falkreon/Documents/Class/AdvancedPython/CSD-325/module-7/test_cities.py", line 6, in test_two_args
    self.assertEqual(city_name("Santiago", "Chile"), "Santiago, Chile")
                     ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
TypeError: city_name() missing 1 required positional argument: 'population'

----------------------------------------------------------------------
Ran 1 test in 0.000s

FAILED (errors=1)
```

Making the argument optional:

```
(venv) [falkreon@Circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
.
----------------------------------------------------------------------
Ran 1 test in 0.000s

OK
```

Adding another argument (argument order has been adjusted):

```
(venv) [falkreon@circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
E
======================================================================
ERROR: test_two_args (__main__.TestCityFunctions.test_two_args)
----------------------------------------------------------------------
Traceback (most recent call last):
  File "/home/falkreon/Documents/Class/AdvancedPython/CSD-325/module-7/test_cities.py", line 6, in test_two_args
    self.assertEqual(city_name("Santiago", "Chile"), "Santiago, Chile")
                     ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
TypeError: city_name() missing 1 required positional argument: 'language'

----------------------------------------------------------------------
Ran 1 test in 0.000s

FAILED (errors=1)
```

Adjusting the parameter so that it, too is optional (re-adjusted argument order):

```
(venv) [falkreon@circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 test_cities.py
.
----------------------------------------------------------------------
Ran 1 test in 0.000s

OK
```

Running the function through all combinations of optional arguments:

```
(venv) [falkreon@circe] ~/Documents/Class/AdvancedPython/CSD-325/module-7 & python3 city_functions.py
City + Country: Santiago,  Chile
City + Country + Pop: Santiago, Chile - population 5000000
City + Country + Language: Santiago, Chile, Spanish
City + Country + Pop + Language: Santiago, Chile - population 5000000, Spanish
```