Methods and Tools in SW Development
Homework 5

Group Number: 18

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~Tests~

Function Name: test_openFile
Number of Tests: 3

Items to test:

- filename

Inputs used for testing:

- 1
- “Stuff”
- “%$#”

Corrections made:

…

Tests passed:
None
Tests failed:

1) 1: Assertion error, this function took the input and actually worked, but the program didn’t think this was possible.
2) “Stuff”: FileNotFoundError, a common error for this function. This function would have succeeded if this fileName existed, but it doesn’t on a local system, thus failing the test.
3) “%$#”: Same as #2, but these characters are usually not allowed in a filename or path. I was expecting the compiler to expect this, but it didn’t.

Function Name: test_numbers
Number of Tests: 3

Items to test:

- num1
- num2

Inputs used for testing:

- 0.001, 0.001
- “num1”, 2
- True, False

Corrections made:

…

Tests passed:

1) 0.001, 0.001: Testing to ensure this function can handle low-value float values.

Tests failed:

2) “num1”, 2: Unsupported operand types. Can’t divide a string and an integer.
3) True, False: These inputs return an unexpected error; *division by zero*. The boolean values are handled as their binary equivalents, so it equals 1 / 0.

Function Name: test_dist
Number of Tests: 3

Items to test:

- x1
- y1
- x2
- y2

Inputs used for testing:

- 0, 0, sqrt(7), sqrt(2)
- “x1”, “y1”, “x2”, “y2”
- True, False, 3, 4

Corrections made:

…

Tests passed:
None

Tests failed:

1) 0, 0, sqrt(7), sqrt(2) ← These inputs are supposed to equal 3 given the distance formula. Python has issues with float calculations and instead, it equals 3.00000…4.
2) “x1”, “y1”, “x2”, “y2”: Incorrect input type, function fails immediately.
3) True, False, 3, 4: Incorrect input type, but the function continues to calculate the distance using only 3 and 4 while counting the boolean values as their respective binary values.

Function Name: test_isPalindrome
Number of Tests: 3

Items to test:

- temp

Inputs used for testing:

- “racecar”
- True
- 1.7171

Corrections made:

…

Tests passed:

1) Racecar ← is a palindrome

Tests failed:

2) True: bool object is not subscriptable
3) 1.7171: float object is not subscriptable

Function Name: test_divide
Number of Tests: 3

Items to test:

-

Inputs used for testing:

-

Corrections made:

…

Tests passed:

…

Function Name: test_sq
Number of Tests: 3

Items to test:

- num

Inputs used for testing:

- 4
- 2**2
- (True+True)**2
- “4”

Corrections made:

…

Tests passed:

1) 4
2) 2**2
3) (True+True)**2 ← Equal to (2)**2 = 4

Tests failed:

4) “4”: TypeError: the function only accepts real numbers, not strings.

Function Name: test_greetUser
Number of Tests: 3

Items to test:

-

Inputs used for testing:

-

Corrections made:

…

Tests passed:

…

Function Name: test_displayItem
Number of Tests: 3

Items to test:

-

Inputs used for testing:

-

Corrections made:

…

Tests passed:

…