Testing, Testing, Testing

Robin Dawes

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In this assignment you are tasked with creating suitable Pytest tests for some Python functions.

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Part 1

The file "Assignment 2 Part 1.py" contains three Python functions to be tested for correctness. This file is available for downloading from the Assignments page. You will probably want to rename this file because Drupal changes the extention for Python programs.

For each of the functions, create Pytest functions to demonstrate correctness.

For example, if the function *remainder*(*a*,*b*) is supposed to return the remainder when a is divided by b , some tests might be to demonstrate that the function gives an appropriate answer when

1. both values are positive
2. both values are negative
3. one is positive and one is negative
4. $a = 0$
5. $b = 0$
6. etc.

Inside each test function you create, include a docstring (''') that identifies the situation that you are testing.

For each function, create a Python source file containing the function and your test functions. Give the source file a suitable name (ending or starting with "test") so that Pytest will detect it.

You should create at least two test functions for each of the three given functions.

Part 2

WRITE A FUNCTION CALLED ALL_ODD_OR_EVEN to meet the following specifications

Specifications are sometimes referred to as the function's CONTRACT

1. accept any number of arguments
2. return True if
    (a) it receives at least one argument, AND
    (b) all the arguments are integers, AND
    (c) the arguments are either all odd OR all even
3. return False in all other situations (including the situation in which it is called with no arguments or invalid arguments)

Write the Function

Create a function in Python that satisfies these requirements.

Create Tests

Create a set of Pytest test functions for all_odd_or_even. Put your function definition and the test functions together in an appropriately named Python source file.

How You Will Be Graded

The assignment will be marked out of 100. 90% of the grade will be for correctness and 10% of the grade will be for programming style.

The grader will read your code and will run your programs to test their correctness.

What to Submit

For this assignment, you are required to create and upload (on onQ) 3 Python programs for Part 1 and 1 Python program for Part 2. Please combine the four programs into a .zip file. Remember to put your name and student number at the top of each program file, as well as the statement regarding academic integrity (as specified in Assignment 1).