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**Python 2: Getting More Out of Python  
Lesson 3, Quiz 2**

Handed in: 21 Feb 2015 03:50:28PM Graded: 23 Feb 2015 11:09:17AM

Question 1:

What would be the best methods to use to verify the result of a floating-point computation during a test?

**Your Answer:**

I would use the assertAlmostEqual method and the assertIsNot method. My alternate choice for the second method would be assertNotAlmostEqual, but I'm guessing we expect that the result of the floating-point computation won't match but we'd like to let the test continue (like in the pi code example you gave me--which was crazy--I didn't know floating-point behaved in that manner).

**Mentor Comments:**

Right. Most of these tests have 'affirmative' and 'negative' versions (allows a passing test in most situations). Here, you could also use:

Here's a "quick and dirty" way to have a look at all of the test methods. A few of these are deprecated, and others are intended to serve as wrappers (assertEqual is one) but you can find out about in unfamiliar method easily enough by using help ():

>>> import unittest

>>> for name in dir(unittest.TestCase):

... if name[0]!='\_': #don't print internal elements

... print(name)

...

addCleanup

addTypeEqualityFunc

assertAlmostEqual

assertAlmostEquals

assertCountEqual

assertDictContainsSubset

assertDictEqual

assertEqual

assertEquals

assertFalse

assertGreater

assertGreaterEqual

assertIn

assertIs

assertIsInstance

assertIsNone

assertIsNot

assertIsNotNone

assertLess

assertLessEqual

assertListEqual

assertMultiLineEqual

assertNotAlmostEqual

assertNotAlmostEquals

assertNotEqual

assertNotEquals

assertNotIn

assertNotIsInstance

assertNotRegex

assertRaises

assertRaisesRegex

assertRaisesRegexp

assertRegex

assertRegexpMatches

assertSequenceEqual

assertSetEqual

assertTrue

assertTupleEqual

assertWarns

assertWarnsRegex

countTestCases

defaultTestResult

doCleanups

failIfAlmostEqual

failIfEqual

failUnless

failUnlessAlmostEqual

failUnlessEqual

failUnlessRaises

failureException

Question 2:

Which function from the tempfile module would you use to create a new temporary directory?

**Your Answer:**

mkdtemp(path) function within the tempfile module.

**Mentor Comments:**

The directories created will have very random names, so make sure you keep track of them for deletion within the program. If on Windows, paths will use backlashes. Paths will likewise seem random.

>>> import tempfile

>>> thepath = tempfile.mkdtemp()

>>> otherpath = tempfile.mkdtemp("testdir")

>>> thepath

'/var/folders/lf/f131hls54tv5lhx\_4rn06n880000gp/T/tmp4x49to'

>>> otherpath

'/var/folders/lf/f131hls54tv5lhx\_4rn06n880000gp/T/tmpo721\_5testdir'

>>> os.rmdir(thepath)

>>> os.rmdir(otherpath)

Using interactive Python console on Eclipse server at OST:

import sys; print('%s %s' % (sys.executable or sys.platform, sys.version))

C:\Python\python.exe 3.1.4 (default, Jun 12 2011, 14:16:16) [MSC v.1500 64 bit (AMD64)]

PyDev console: using default backend (IPython not available).

>>> import tempfile

>>> tempdir = tempfile.mkdtemp()

>>> tempdir

'c:\\users\\pbarton\\appdata\\local\\temp\\3\\tmpsetizw'

>>> import os

>>> os.rmdir(tempdir)

>>>

Question 3:

Which function from the shutil module would you use to delete a directory including all files and subdirectories in it?

**Your Answer:**

rmtree(path) function within the shutil module.

#Good to know that this function is like a ninja assassin!

**Mentor Comments:**

*none*

Question 4:

What is the first step in test-driven development?

**Your Answer:**

Write tests.

**Mentor Comments:**

*none*

**Overall Comments:**

You got it, James. Good job.

FYI ... Unless you want the extra practice, you don't need to repeat answers that you've gotten correct on previous attempts. Any placeholder e.g., "already answered" will work. I have access to all your old work.

-Pat

**Grade:**

Great

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