Unit Test Cheat-Sheet

Frankly, the unit testing library for Python is fairly well documented, but it can be a bit of a dry read. Instead, we suggest covering the core module concepts, and then reading in more detail later.

**Best of Unit Testing Standard Library Module**

Understand a Basic Example:

* <https://docs.python.org/3/library/unittest.html#basic-example>

Understand how to run the tests using the Command Line:

* <https://docs.python.org/3/library/unittest.html#command-line-interface>

Understand various Unit Test Design Patterns:

* <https://docs.python.org/3/library/unittest.html#organizing-test-code>
* Understand the uses of setUp, tearDown; setUpModule and tearDownModule

Understand basic assertions:

| **Method** | **Checks that** | **New in** |
| --- | --- | --- |
| [assertEqual(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertEqual) | a == b |  |
| [assertNotEqual(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertNotEqual) | a != b |  |
| [assertTrue(x)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertTrue) | bool(x) is True |  |
| [assertFalse(x)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertFalse) | bool(x) is False |  |
| [assertIs(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIs) | a is b | 3.1 |
| [assertIsNot(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIsNot) | a is not b | 3.1 |
| [assertIsNone(x)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIsNone) | x is None | 3.1 |
| [assertIsNotNone(x)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIsNotNone) | x is not None | 3.1 |
| [assertIn(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIn) | a in b | 3.1 |
| [assertNotIn(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertNotIn) | a not in b | 3.1 |
| [assertIsInstance(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertIsInstance) | isinstance(a, b) | 3.2 |
| [assertNotIsInstance(a, b)](https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertNotIsInstance) | not isinstance(a, b) | 3.2 |

Understand more specific assertions such as assertRaises

* <https://docs.python.org/3/library/unittest.html#unittest.TestCase.assertRaises>

# Help with Jupyter Notebooks

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If you still need help, the discussion forums are a great place to find it! Use the forums to ask questions and source answers from your fellow learners.

If you want to learn more about Jupyter Notebooks as a technology, check out these resources:

* [Jupyter Notebook Tutorial](https://www.datacamp.com/community/tutorials/tutorial-jupyter-notebook), by datacamp.com
* [How to use Jupyter Notebooks](https://www.codecademy.com/articles/how-to-use-jupyter-notebooks), by codeacademy.com
* [Teaching and Learning with Jupyter](https://jupyter4edu.github.io/jupyter-edu-book/), by university professors using Jupyter

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* [Teaching and Learning with Jupyter](https://jupyter4edu.github.io/jupyter-edu-book/), by university professors using Jupyter

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