

Cheatsheet: Python Coding Practices and Packaging Concepts



Estimated time needed: 5 minutes

| Package/Method | Description | Code Example |
|--------------------|--|---|
| Packaging | <p>To create a package, the folder structure is as follows:</p> <ol style="list-style-type: none">1. Project folder → Package name → __init__.py, module_1.py, module_2.py, and so on.2. In the __init__.py file, add code to reference the modules in the package. | <p>module1.py</p> <pre>def function_1(arg): return <operation output></pre> <p>__init__.py:</p> <pre>from . import function_1</pre> |
| Python Style Guide | <ul style="list-style-type: none">• Four spaces for indentation• Use blank lines to separate functions and classes• Use spaces around operators and after commas• Add larger blocks of code inside functions• Name functions and files using lowercase with underscores• Name classes using CamelCase• Name constants in capital letters with underscores separating words | <pre>def function_1(a, b): if a > b: c = c + 5 else: c = c - 3 return c ... c = function_1(a, b)</pre> <p>Constant Definition example</p> <pre>MAX_FILE_UPLOAD_SIZE</pre> |

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| Static Code Analysis | <p>Use Static code analysis method to evaluate your code against a predefined style and standard without executing the code.</p> <p>For example, use Pylint to perform static code analysis.</p> | <p>Shell code:</p> <pre>pylint code.py</pre> |
| Unit Testing | <p>Unit testing is a method to validate if units of code are operating as designed.</p> <p>During code development, each unit is tested. The unit is tested in a continuous integration/continuous delivery test server environment.</p> <p>You can use different test functions to build unit tests and review the unit test output to determine if the test passed or failed.</p> | <pre>import unittest from mypackage.mymodule import my_function class TestMyFunction(unittest.TestCase): def test_my_function(self): result = my_function(<args>) self.assertEqual(result, <response>) unittest.main()</pre> |

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