

# 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"><li>1. <b>Project folder</b> → <b>Package name</b> → <b>__init__.py</b>, <b>module_1.py</b>, <b>module_2.py</b>, and so on.</li><li>2. In the <b>__init__.py</b> file, add code to reference the modules in the package.</li></ol>	<p><b>module1.py</b></p> <pre>def function_1(arg):     return &lt;operation output&gt;</pre> <p><b>__init__.py:</b></p> <pre>from . import function_1</pre>
Python Style Guide	<ul style="list-style-type: none"><li>• Four spaces for indentation</li><li>• Use blank lines to separate functions and classes</li><li>• Use spaces around operators and after commas</li><li>• Add larger blocks of code inside functions</li><li>• Name functions and files using lowercase with underscores</li><li>• Name classes using CamelCase</li><li>• Name constants in capital letters with underscores separating words</li></ul>	<pre>def function_1(a, b):     if a &gt; b:         c = c + 5     else:         c = c - 3     return c ...</pre> <p><b>Constant Definition example</b></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><b>Shell code:</b></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(&lt;args&gt;)          self.assertEqual(result, &lt;response&gt;)  unittest.main()</pre>

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