

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. 	<p>module1.py</p> <pre>def function_1(arg): return <operation output></pre>
	<ol style="list-style-type: none"> 2. In the init.py file, add code to reference the modules in the package. 	<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>
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>	<pre>import unittest</pre>

Package/Method	Description	Code Example
	During code development, each unit is tested. The unit is tested in a continuous integration/continuous delivery test server environment.	<pre>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>
	You can use different test functions to build unit tests and review the unit test output to determine if the test passed or failed.	

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Changelog

Date	Version	Changed by	Change Description
2023-07-06	0.1	Abhishek Gagneja	Initial version created
2023-07-10	0.2	Andrew Pfeiffer	Documented in AWB

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