

# Cheatsheet: Python Coding Practices and Packaging Concepts



Estimated time needed: 5 minutes

Package/Method	Description	Code Example
Packaging	To create a package, the folder structure is as follows:	<b>module1.py</b>
	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.	<pre>def function_1(arg):     return &lt;operation output&gt;</pre>
Python Style Guide	2. In the <b>init.py</b> file, add code to reference the modules in the package.	<b>init.py:</b>
	<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>from . import function_1  def function_1(a, b):     if a &gt; b:         c = c + 5     else:         c = c - 3     return c ... c = function_1(a, b)</pre>
Static Code Analysis	Use Static code analysis method to evaluate your code against a predefined style and standard without executing the code.	<b>Constant Definition example</b>
	For example, use Pylint to perform static code analysis.	<pre>MAX_FILE_UPLOAD_SIZE</pre>
Unit Testing	Unit testing is a method to validate if units of code are operating as	<b>Shell code:</b>
		<pre>pylint code.py</pre>
		<pre>import unittest</pre>

Package/Method	Description	Code Example
	designed.	from mypackage.mymodule import my_function
	During code development, each unit is tested. The unit is tested in a continuous integration/continuous delivery test server environment.	class TestMyFunction(unittest.TestCase):  def test_my_function(self):  result = my_function(<args>  self.assertEqual(result, <response>)  unittest.main()
	You can use different test functions to build unit tests and review the unit test output to determine if the test passed or failed.	

Author(s)

Abhishek Gagneja

Other Contributor(s)

Andrew Pfeiffer, Sina Nazeri

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

© IBM Corporation 2023. All rights reserved.