Cheatsheet: Python Coding Practices and Packaging Concepts

Skills Network

Estimated time needed: 5 minutes

Package/Method	Description	Code Example

Packaging	To create a package, the folder structure is as follows:
	
	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.
		module1.py
		
		```python\ndef function_1(arg):\n\n return <operation output>\n```
		
		init.py:
		
		```python\nfrom . import function_1\n```

Python Style Guide	• 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
		```python\ndef function_1(a, b):\n\n if a > b:\n\n c = c + 5\n\n else:\n\n c = c - 3\n\n return c\n```
		
		…
		
		```python\nc = function_1(a, b)\n```
		
		Constant Definition example
		
		```python\nMAX_FILE_UPLOAD_SIZE\n```

Static Code Analysis	Use Static code analysis method to evaluate your code against a predefined style and standard without executing the code. For example, use Pylint to perform static code analysis.	**Shell code:** ```shell\npylint code.py\n```

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Unit Testing	Unit testing is a method to validate if units of code are operating as designed.
	
	During code development, each unit is tested. The unit is tested in a continuous integration/continuous delivery test server environment.
	
	You can use different test functions to build unit tests and review the unit test output to determine if the test passed or failed.
		``python
		import unittest
		
		from mypackage.mymodule import my_function
		
		class TestMyFunction(unittest.TestCase):
		
		    def test_my_function(self):
		
		        result = my_function(<args>)
		
		        self.asserEqual(result, <response>)
		
		unittest.main()
		``

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