1. test\_filename:
   * This test case asserts that the filename\_collection variable in the Targest2 module has the expected list of filenames.
   * The expected output is a list of filenames.
   * The test compares the actual value of Targest2.filename\_collection with the expected output using the self.assertEqual method.
2. test\_parent\_tags:
   * This test case asserts that the parents\_list variable in the Targest2 module has the expected list of parent tags.
   * The expected output is a nested list of parent tags.
   * The test compares the actual value of Targest2.parents\_list with the expected output using the self.assertEqual method.
3. test\_orphan\_child\_tags:
   * This test case asserts that the orphanChild variable in the Targest2 module has the expected list of orphan child tags.
   * The expected output is a list of orphan child tags.
   * The test compares the actual value of Targest2.orphanChild with the expected output using the self.assertEqual method.
4. test\_child\_tags:
   * This test case asserts that the child\_tags\_list variable in the Targest2 module has the expected list of child tags for each parent tag.
   * The expected output is a nested list of child tags.
   * The test compares the actual value of Targest2.child\_tags\_list with the expected output using the self.assertEqual method.
5. test\_childless\_tags:
   * This test case asserts that the childless variable in the Targest2 module has the expected list of childless tags (tags without any children).
   * The expected output is a list of childless tags.
   * The test compares the actual value of Targest2.childless with the expected output using the self.assertEqual method.

In each test case, the expected output is defined as a list or a nested list of tags. The test compares the actual value of the corresponding variable in the Targest2 module with the expected output using the self.assertEqual method from the unittest.TestCase class. If the actual value matches the expected output, the test case passes. Otherwise, an assertion error is raised, indicating a mismatch between the actual and expected values.

The unittest.main() function at the end of the script is used to run all the test cases in the module. It executes the unit tests and displays the results in the console.



User

Explain the output for each

ChatGPT

Certainly! Let's go through each test case and explain the expected output:

1. test\_filename:
   * The expected output is a list of filenames.
   * This test case ensures that the filename\_collection variable in the Targest2 module contains the correct list of filenames. If the test passes, it means that the filenames are correctly collected and stored in Targest2.filename\_collection.
2. test\_parent\_tags:
   * The expected output is a nested list of parent tags.
   * This test case verifies that the parents\_list variable in the Targest2 module contains the correct nested list of parent tags. If the test passes, it means that the parent tags are correctly extracted and stored in Targest2.parents\_list.
3. test\_orphan\_child\_tags:
   * The expected output is a list of orphan child tags.
   * This test case checks if the orphanChild variable in the Targest2 module contains the expected list of orphan child tags. If the test passes, it means that the orphan child tags are correctly identified and stored in Targest2.orphanChild.
4. test\_child\_tags:
   * The expected output is a nested list of child tags for each parent tag.
   * This test case ensures that the child\_tags\_list variable in the Targest2 module contains the correct nested list of child tags for each parent tag. If the test passes, it means that the child tags are correctly organized and stored in Targest2.child\_tags\_list.
5. test\_childless\_tags:
   * The expected output is a list of childless tags (tags without any children).
   * This test case checks if the childless variable in the Targest2 module contains the expected list of childless tags. If the test passes, it means that the childless tags are correctly identified and stored in Targest2.childless.

For each test case, the actual output will be compared to the expected output. If the actual output matches the expected output, the test case will pass. Otherwise, an assertion error will be raised, indicating a mismatch between the actual and expected values. The test runner will display the results of each test case, indicating whether they passed or failed.