To improve this code, I used Pylint, Flake8, Coverage, and Sloc. Results before improving:



I made the code easier to read by removing unnecessary spaces and empty lines.

I added docstrings for functions to make them easier to understand.

I removed unused imports and added a final newline.

Here are the results after improving the code:



As you can see Pylint rating of the code improved from 4.58/10 to 9.13/10.

All problems found by Flake8 was solved.

100% coverage achieved.

And the code overall is shorter after removing the empty lines.