Coverage Testing Report

Please provide your GitHub repository link.

GitHub Repository URL: https://github.com/DaicosJ/Milestone2_Project.git

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The testing report should focus solely on testing all the self-defined functions related to the five required features. There is no need to test the GUI components. Therefore, it is essential to decouple your code and separate the logic from the GUI-related code.

You should perform statement coverage testing and branch coverage testing. For each type, provide a description and an analysis explaining how you evaluated the coverage.

1. **Test Summary**

list all tested functions related to the five required features, for example:

Tested Functions
`add(x1,x2)`
`divide(x1,x2)`
`...`

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2. **Statement Coverage Test**

2.1 Description

Explain how you designed the test cases (i.e., test_all_functions.py) to reach 100% statement coverage.

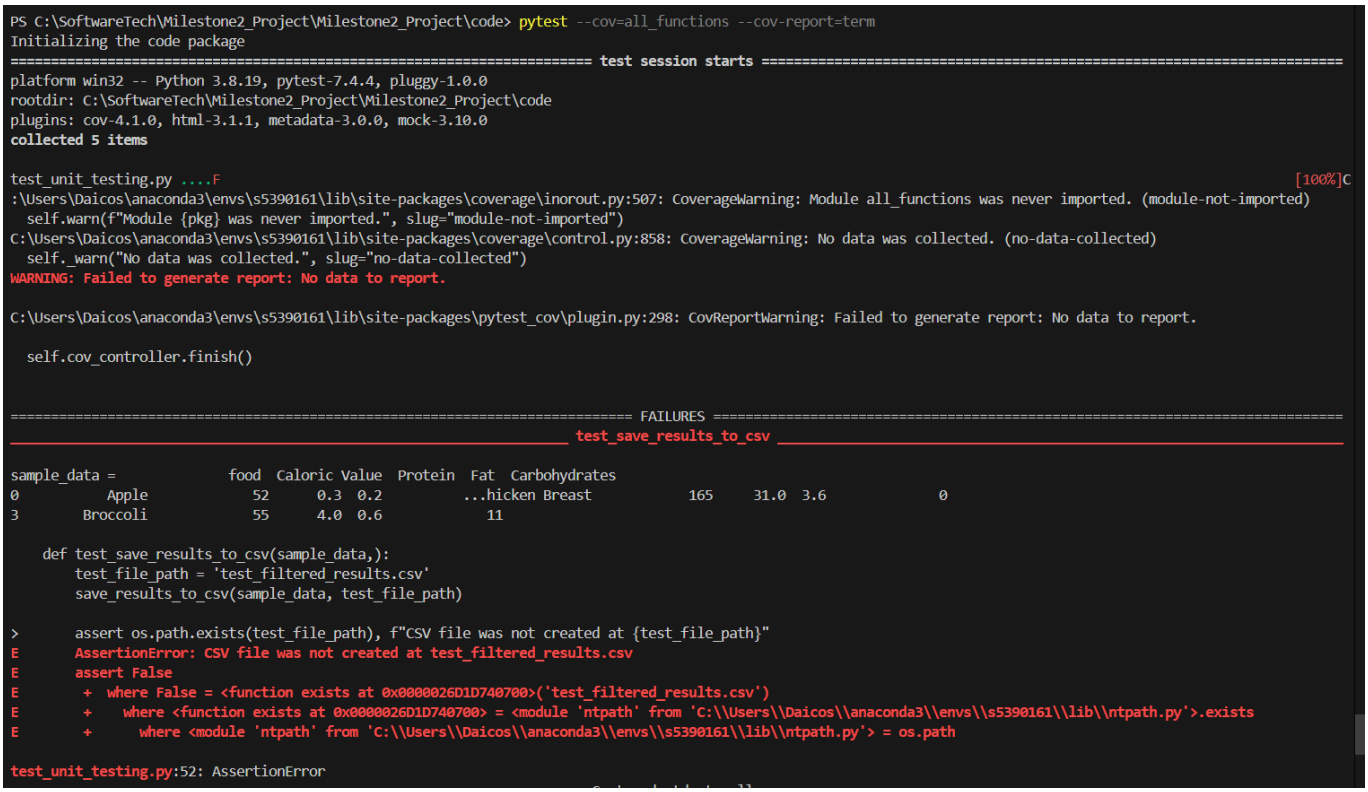
2.2 Testing Results

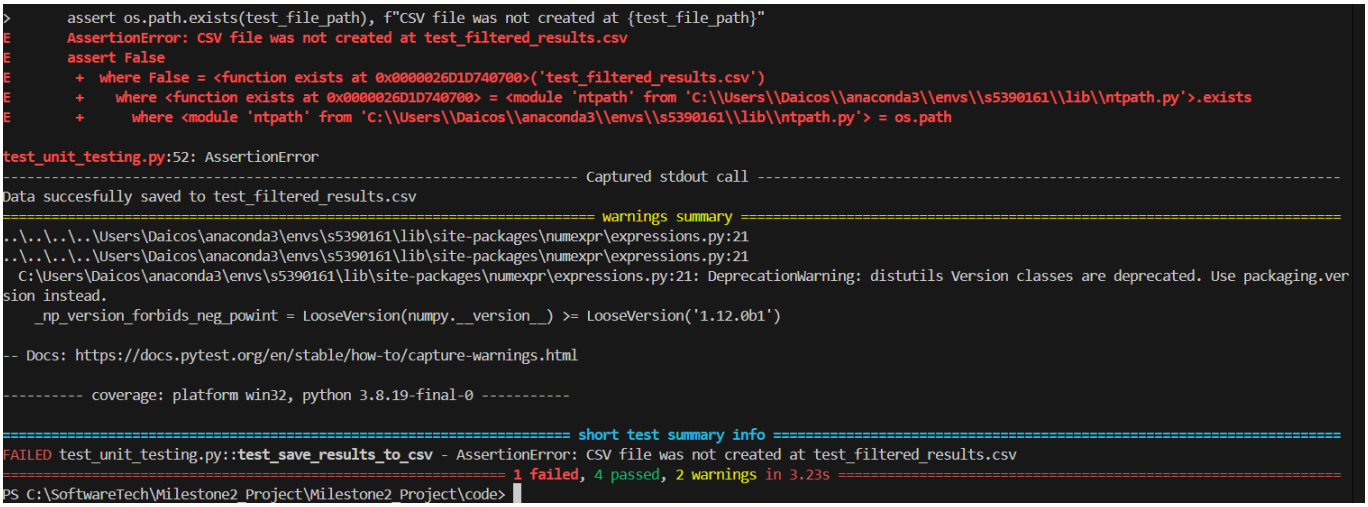
You can use the following command to run the statement coverage test and generate the report in the terminal. Afterward, include a screenshot of the report.

You must provide the test_all_functions.py file, which contains all test functions, otherwise pytest will not be able to execute the tests.

```
pytest --cov=all_functions --cov-report=term
```

Note: In the command above, the file/module `all_functions` does not include the .py extension. all_functions.py should contain all the tested functions related to the five required features.





3. **Branch Coverage Test**

3.1 Description

Explain how you designed the test cases (i.e., test_all_functions.py) to reach 100% branch coverage.

3.2 Testing Results

You can use the following command to run the branch coverage test and generate the report in the terminal. Afterward, include a screenshot of the report.

You must provide the test_all_functions.py file, which contains all test functions, otherwise pytest will not be able to execute the tests.

```
pytest --cov=all_functions --cov-branch --cov-report=term
```

Note: In the command above, the file/module `all_functions` does not include the .py extension. all_functions.py should contain all the tested functions related to the five required features.

```
(soft_tech) PS D:\M2\my_code> pytest --cov=all_functions --cov-branch --cov-report=term
================================== test session starts ==================================
platform win32 -- Python 3.8.19, pytest-7.4.4, pluggy-1.0.0
rootdir: D:\M2\my_code
plugins: cov-4.1.0, html-3.1.1, metadata-3.0.0
collected 6 items

test_all_functions.py ......                                                      [100%]

---------- coverage: platform win32, python 3.8.19-final-0 -----------
Name               Stmts   Miss Branch BrPart  Cover
-----------------------------------------------------
all_functions.py      16      0      8      0   100%
-----------------------------------------------------
TOTAL                 16      0      8      0   100%
```