

# Coverage Testing Report

GitHub Repository URL: <https://github.com/Sean-O-99/SoftwareTechAssign.git>

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

Tested Functions	Test Functions
on_search	test_on_search_valid() test_on_search_valid_empty()
on_cell_click	test_on_cell_click_valid()
clear_filters()	test_clear_filters_valid()
apply_filters()	apply_filters_valid() apply_filters_invalid()
...	...
...	...

## 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.

```
(software_tech) sipa@Sipas-MacBook-Air milestone_2 % pytest --cov=all_functions --cov-report=term
===== test session starts =====
platform darwin -- Python 3.8.19, pytest-8.3.3, pluggy-1.5.0
rootdir: /Users/sipa/SoftwareTechAssign/Milestone_2
plugins: cov-5.0.0
collected 7 items

MILESTONE2/test_all_functions.py ..... [100%]

----- coverage: platform darwin, python 3.8.19-final-0 -----
Name                               Stmts  Miss  Cover
-----
MILESTONE2/all_functions.py         43      0   100%
TOTAL                               43      0   100%

===== 7 passed in 0.50s =====
```

## 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.

```
(software_tech) sipa@Sipas-MacBook-Air milestone_2 % pytest --cov=all_functions --cov-branch --cov-report=term
===== test session starts =====
platform darwin -- Python 3.8.19, pytest-8.3.3, pluggy-1.5.0
rootdir: /Users/sipa/SoftwareTechAssign/Milestone_2
plugins: cov-5.0.0
collected 7 items

MILESTONE2/test_all_functions.py ..... [100%]

----- coverage: platform darwin, python 3.8.19-final-0 -----
Name                               Stmts  Miss  Branch  BrPart  Cover
-----
MILESTONE2/all_functions.py         43      0      6      0   100%
TOTAL                               43      0      6      0   100%

===== 7 passed in 0.55s =====
```