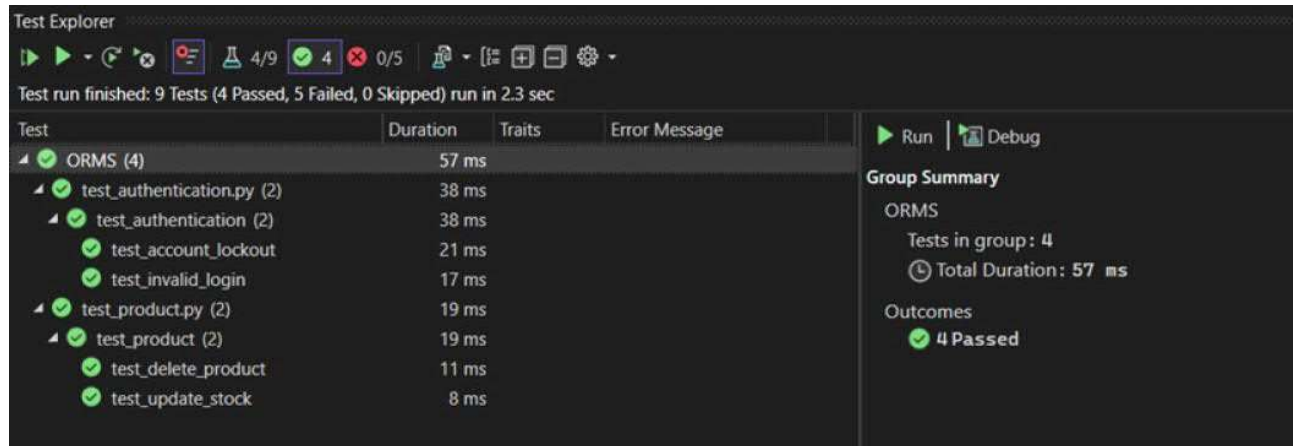


Appendix 15 Evidence of testing

Note: The system was originally named Online Retailer Management System (ORMS), it was later changed to IMS in the final development phase to align with its functionality.

Test Result 2024-12-31 – 9 Tests (4 Passed, 5 Failed)

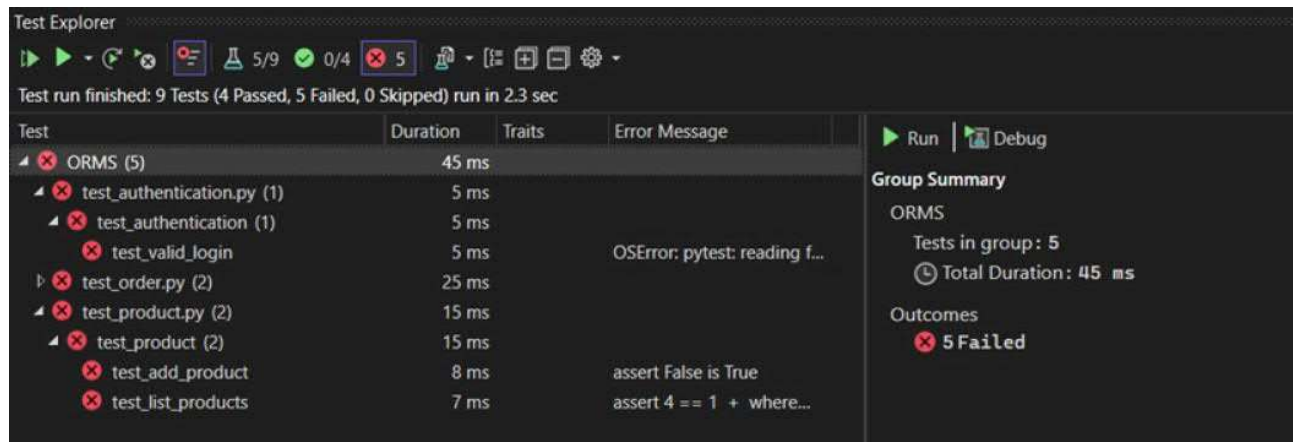


The screenshot shows the Test Explorer interface with a summary of 4 passed tests. The table lists the following tests and their durations:

Test	Duration	Traits	Error Message
ORMS (4)	57 ms		
test_authentication.py (2)	38 ms		
test_authentication (2)	38 ms		
test_account_lockout	21 ms		
test_invalid_login	17 ms		
test_product.py (2)	19 ms		
test_product (2)	19 ms		
test_delete_product	11 ms		
test_update_stock	8 ms		

Group Summary:

- ORMS
- Tests in group: 4
- Total Duration: 57 ms
- Outcomes: 4 Passed



The screenshot shows the Test Explorer interface with a summary of 5 failed tests. The table lists the following tests and their durations:

Test	Duration	Traits	Error Message
ORMS (5)	45 ms		
test_authentication.py (1)	5 ms		
test_authentication (1)	5 ms		
test_valid_login	5 ms		OSError: pytest: reading f...
test_order.py (2)	25 ms		
test_product.py (2)	15 ms		
test_product (2)	15 ms		
test_add_product	8 ms		assert False is True
test_list_products	7 ms		assert 4 == 1 + where...

Group Summary:

- ORMS
- Tests in group: 5
- Total Duration: 45 ms
- Outcomes: 5 Failed

Test Result 2025-01-07 – 10 Tests (9 Passed, 1 Failed)

Test run finished: 10 Tests (9 Passed, 1 Failed, 0 Skipped) run in 9.6 sec

Test	Duration	Traits	Error Message
IMS (9)	4.3 sec		
test_product.py (4)	32 ms		
test_product (4)	32 ms		
test_update_stock	9 ms		
test_list_products	7 ms		
test_delete_product	8 ms		
test_add_product	8 ms		
test_order.py (2)	24 ms		
test_order (2)	24 ms		
test_place_order	10 ms		
test_list_customer_orders	14 ms		
test_authentication.py (3)	4.2 sec		
TestAuthentication (3)	4.2 sec		
test_valid_login	1.2 sec		
test_invalid_login	16 ms		
test_account_lockout	3 sec		

Run | Debug

Group Summary

IMS

Tests in group: 9

Total Duration: 4.3 sec

Outcomes

9 Passed

Test run finished: 10 Tests (9 Passed, 1 Failed, 0 Skipped) run in 9.6 sec

Test	Duration	Traits	Error Message
IMS (1)	2.1 sec		
test_linter.py (1)	2.1 sec		
test_linter (1)	2.1 sec		
test_flake8	2.1 sec		Failed: Flake8 li...

Run | Debug

Test Detail Summary

test_flake8

Source: test_linter.py line 4

Duration: 2.1 sec

Message:

Failed: Flake8 lint errors:

```
.\IMS.py:1:1: W391 blank line at end of file
.\api\company_validation_api.py:6:68: W291 trailing whitespace
.\api\company_validation_api.py:12:1: E302 expected 2 blank lines, found 1
.\api\company_validation_api.py:20:1: E305 expected 2 blank lines after class or function definition, four
.\api\company_validation_api.py:22:1: W391 blank line at end of file
.\controllers\authentication_controller.py:5:14: W291 trailing whitespace
.\controllers\authentication_controller.py:6:1: F401 'models.user.Admin' imported but unused
.\controllers\authentication_controller.py:8:1: E302 expected 2 blank lines, found 1
.\controllers\authentication_controller.py:15:80: E501 line too long (96 > 79 characters)
.\controllers\authentication_controller.py:16:80: E501 line too long (85 > 79 characters)
.\controllers\authentication_controller.py:31:80: E501 line too long (84 > 79 characters)
.\controllers\authentication_controller.py:33:80: E501 line too long (116 > 79 characters)
.\controllers\authentication_controller.py:59:80: E501 line too long (111 > 79 characters)
.\controllers\authentication_controller.py:64:80: E501 line too long (98 > 79 characters)
.\controllers\authentication_controller.py:65:80: E501 line too long (139 > 79 characters)
.\controllers\authentication_controller.py:78:80: E501 line too long (81 > 79 characters)
.\controllers\authentication_controller.py:88:80: E501 line too long (81 > 79 characters)
.\controllers\authentication_controller.py:91:80: E501 line too long (116 > 79 characters)
```

0 Warnings 0 Errors

Test Result 2025-01-11 – 10 Tests (9 Passed, 1 Failed)

Test run finished: 10 Tests (9 Passed, 1 Failed, 0 Skipped) run in 5.5 sec

Test	Duration	Traits	Error Message
IMS (9)	1.8 sec		
test_product.py (4)	32 ms		
test_product (4)	32 ms		
test_update_stock	8 ms		
test_list_products	8 ms		
test_delete_product	8 ms		
test_add_product	8 ms		
test_order.py (2)	36 ms		
test_order (2)	36 ms		
test_place_order	12 ms		
test_list_customer_orders	24 ms		
test_authentication.py (3)	1.8 sec		
TestAuthentication (3)	1.8 sec		

Group Summary

IMS

Tests in group: 9

Total Duration: 1.8 sec

Outcomes

9 Passed

Test run finished: 10 Tests (9 Passed, 1 Failed, 0 Skipped) run in 5.5 sec

Test	Duration	Traits	Error Message
IMS (1)	1.6 sec		
test_linter.py (1)	1.6 sec		
test_linter (1)	1.6 sec		
test_flake8	1.6 sec		Failed: Flake8 li...

Test Detail Summary

test_flake8

Source: test_linter.py line 4

Duration: 1.6 sec

Message:

Failed: Flake8 lint errors:

```
.\test_authentication.py:2:1: F401 'os' imported but unused
.\test_authentication.py:10:1: E302 expected 2 blank lines, found 1
.\test_authentication.py:25:1: E302 expected 2 blank lines, found 1
.\test_authentication.py:41:80: E501 line too long (93 > 79 characters)
.\test_authentication.py:42:80: E501 line too long (84 > 79 characters)
.\test_authentication.py:57:80: E501 line too long (82 > 79 characters)
.\test_authentication.py:64:80: E501 line too long (93 > 79 characters)
.\test_authentication.py:65:80: E501 line too long (84 > 79 characters)
.\test_authentication.py:74:48: W292 no newline at end of file
.\test_conftest.py:2:1: F401 'os' imported but unused
.\test_conftest.py:11:80: E501 line too long (106 > 79 characters)
.\test_conftest.py:13:80: E501 line too long (109 > 79 characters)
.\test_conftest.py:14:80: E501 line too long (118 > 79 characters)
.\test_conftest.py:15:80: E501 line too long (83 > 79 characters)
.\test_conftest.py:18:1: E302 expected 2 blank lines, found 1
```

Test Result 2025-01-12 – 10 Tests (All Passed)

The screenshot displays a test runner interface with a dark theme. At the top, a status bar shows icons for test execution and a summary: 10 tests passed, 10 tests succeeded, and 0 tests failed. Below this, a message states: "Test run finished: 10 Tests (10 Passed, 0 Failed, 0 Skipped) run in 5.2 sec".

The main area is a table with columns: Test, Duration, Traits, and Error Me... (partially visible). The table lists the following tests:

Test	Duration
IMS (10)	3.5 sec
test_product.py (4)	29 ms
test_product (4)	29 ms
test_update_stock	8 ms
test_list_products	6 ms
test_delete_product	8 ms
test_add_product	7 ms
test_order.py (2)	22 ms
test_order (2)	22 ms
test_place_order	10 ms
test_list_customer_orders	12 ms
test_linter.py (1)	1.7 sec
test_linter (1)	1.7 sec
test_flake8	1.7 sec
test_authentication.py (3)	1.8 sec
TestAuthentication (3)	1.8 sec
test_valid_login	579 ms
test_invalid_login	5 ms
test_account_lockout	1.2 sec

On the right side, there are buttons for "Run" and "Debug". Below these, a "Group Summary" section shows:

- IMS
- Tests in group: 10
- Total Duration: 3.5 sec

Below the summary, an "Outcomes" section shows:

- 10 Passed