

1. test_user_auth_integration

Purpose: Testing the integration between AuthController and AccountService during the user sign-up process and verify that the session is correctly set when an account is created successfully.

Intention:

- Ensuring that submitting valid credentials to /sign-up route creates account
- Verify that a valid session is established after sign-up
- Confirm user is redirected to homepage after successful sign-up
- Test the handling of invalid inputs by checking error messages when account creation fails

2. test_flight_booking_interface

Purpose: Testing the integration between the FlightController and FlightService by simulating a search for available flights.

Intention:

- Verify the /flights route returns a 200 OK status for valid search parameters
- Check that the response includes a list of available flights in expected format
- Validate the flow from the controller to the service and make sure that the response aligns with the app logic for flight search

3. test_homepage_integration

Purpose: Testing the functionality of the homepage and making sure that it reflects the expected state based on the user session.

Intention:

- Confirm the homepage loads successfully with a 200 OK status
- Verify that when a user is logged in, the homepage displays user-specific elements
- Test default homepage view when no user session exists
- Validate that homepage dynamically adjusts based on user session state

Integration Test Output Screenshot:

```
(venv) (base) Macbook-Air-Steam:tests danieldavids$ pytest test_integration.py
===== test session starts =====
platform darwin -- Python 3.10.7, pytest-8.3.3, pluggy-1.5.0
rootdir: /Users/danieldavids/Documents/GitHub/Group-62-AA-Assignment1/app/tests
collected 3 items

test_integration.py ... [100%]

===== 3 passed in 0.18s =====
(venv) (base) Macbook-Air-Steam:tests danieldavids$
```

How to run integration test:

1. Load the repository
2. Change directory to app/tests from the root directory
3. Run the test file with command: `pytest test_integration.py`
4. Whole process below including output:

```
(venv) (base) Macbook-Air-Steam:Group-62-AA-Assignment1 danieldavids$ cd app/tests
(venv) (base) Macbook-Air-Steam:tests danieldavids$ pytest test_integration.py
===== test session starts =====
platform darwin -- Python 3.10.7, pytest-8.3.3, pluggy-1.5.0
rootdir: /Users/danieldavids/Documents/GitHub/Group-62-AA-Assignment1/app/tests
collected 3 items

test_integration.py ... [100%]

===== 3 passed in 0.18s =====
(venv) (base) Macbook-Air-Steam:tests danieldavids$
```

Task Distribution:

Daniel - Tests and analysis (33.3%)

Ethan - Tests and analysis (33.3%)

Kareem - Tests and analysis (33.3%)