Integration Testing, Group 30-TA

Summary:

1. Create Lease API Test

- Purpose: This test verifies the API's functionality for creating a lease. It ensures that a valid lease creation request results in a successful response and the appropriate HTTP status code (201 Created).
- Procedure: The test sends a POST request to the /api/lease endpoint with a payload containing lease details such as address, dates, rent, and tenant information.
- Expected Outcome: The API responds with HttpStatusCode.Created, indicating successful lease creation.
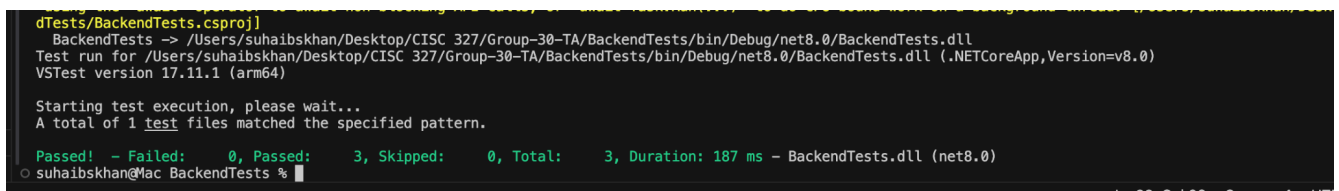
2. Get Lease by ID API Test

- Purpose: This test checks whether the lease retrieval endpoint works as expected when provided with a valid lease ID.
- Procedure: The test first creates a lease by sending a POST request to /api/lease. It then retrieves the newly created lease using a GET request to /api/lease/{leaseId}.
- Expected Outcome: The GET request returns an HttpStatusCode.OK, confirming that the lease data is accessible and correctly linked to its ID.

3. Login API Test

- Purpose: This test ensures that the login functionality operates correctly with valid user credentials.
- Procedure: The test sends a POST request to the /login endpoint with the credentials of a predefined test user.
- Expected Outcome: The response has a success status and includes a valid AccessToken in the response data, indicating successful authentication.

Screenshot

Instructions on how to run:

1. Pull the repo
2. cd into the BackendTests directory
3. Enter in terminal : dotnet test

Task distribution

Name	Task/Responsibility
Suhaib	Wrote the deliverable document, including the summary, screenshots, instructions on how to run the tests, and task distribution. Additionally, implemented the Login_WithValidCredentials_ReturnsOk test, which verifies the login functionality using test credentials and checks if authentication is successful.
Dovydas	Set up the testing framework and implemented tools to measure and track test coverage across the codebase. Wrote the Create_Lease_Api_Test, which verifies the API's ability to handle lease creation by sending a payload with lease details and ensuring the API responds with a success status. Additionally, refactored existing code and tests to improve maintainability and ensure consistency.
Will	Developed the Get_Lease_By_Id_Api_Test, which tests the lease retrieval functionality. This test involves creating a lease by submitting a valid payload, storing it in the database, and then retrieving the lease using its ID. The test ensures the correct behavior of both creation and retrieval functionalities, confirming data consistency and endpoint reliability.