2. **Verification Test Plan:** Using test case 4, the unit for this is a situation in which it verifies the login information with an existing account to make sure it is a valid account with a correct username and password. The function for this is so that when a person inserts the correct login information they will then get to the movie selection page. In the system, this is important as it allows us to create a way in which a person is able to access their ticket by having it linked to their account so only they can use the ticket(s).

Test Set 1: Unit Test - Seating Location Available

Test Description:

In test case 10, we will verify if the SeatingLocation class correctly updates the availability status of a seating location when a seat is booked. We will create a new class, set the seating location to "available", book the seat and check to make sure the status is updated to "taken".

Test Vector:

- Create a new SeatingLocation class.
- Set the status of the seating location to "available".
- Book the seating location by calling the Book() method.
- Verify if the seating location is updated to "taken".

Cover:

This test covers the "Seating Location Available" feature at the unit level, specifically testing the Book() method of the SeatingLocation class.

Test Set 2: Functional Test - Seating Location Available

Test Description:

In this test, we will confirm if the movie theater ticketing system correctly reserves a seating location and updates its availability. We will test if a user selects a seat and check if the system correctly reserves the seat and updates its status to "taken".

Test Vector:

- Launch the movie theater ticketing system.
- Select a seating location on the seating chart.
- Reserve the seating location by clicking the "Book" button.
- Verify if the system correctly updates the seating location's status to "taken".

Cover:

This test covers the "Seating Location Available" feature at the functional level, testing the system's ability to book a seating location and update its availability status.

Test Set 3: System Test - Seating Location Available

Test Description:

In this test, we will see if the system can prevent double bookings of a seat. We can test two customers both trying to book the same seat at the same time and check if the system stops this from happening.

Test Vector:

- Have two of the movie theater ticketing system indifferent devices.
- Select the same seating location on both.
- Attempt to reserve the the same seat at the same time
- Confirm that the system correctly prevents double booking/displays an error and updates one seating location to "taken".

Cover:

This test covers the "Seating Location Available" feature at the system level, testing if the system can prevent double bookings and update the seating location's availability status correctly.