

11121

## SEN 3305 Software Quality Assurance

### Assignment 2

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Q1

1.1

Test Case ID	Input	Expected Output
TC_ADD_01	3, 5	8
TC_ADD_02	-2, 7	5

1.2

- After executing each test case, I would record the Actual Output and compare it with the Expected Output.
- The results would be documented in a Test Execution Report table with columns such as Test Case ID, Input, Expected Output, Actual Output, and Result (Pass/Fail).
- If the actual output matches the expected output, the test case is marked as Pass; otherwise, it is marked as Fail.
- Additionally, I would record any defects found (if any) in a Defect Log for further investigation and resolution.

Q2

2.1

The chosen test design technique is Equivalence Partitioning.

2.2

Test Input	Reason
200151	Valid 6-digit numeric PIN
20015	Invalid: less than 6 digits
20010516	Invalid: more than 6 digits

## 2.3

- Equivalence Partitioning divides input data into valid and invalid classes.
- This technique is suitable because the requirement clearly defines a boundary condition (only 6-digit numeric PINs).
- By selecting one valid input and two invalid inputs (one too short, one too long), we efficiently verify both acceptance and rejection criteria without testing every possible value.
- This ensures good coverage with fewer test cases and improves testing efficiency.

## Q3

## 3.1

- Step 1: Launch the application and navigate to the login page.
- Step 2: Enter the valid username (user1) and password (pass123) into the respective fields.
- Step 3: Click the Login button to submit the credentials

## 3.2

I would include a verification step that checks for a clear indicator of successful login — such as:

- Verifying the presence of a welcome message (e.g., "Welcome, user1"),
- Confirming that the dashboard page URL is loaded (e.g., /dashboard), or
- Checking that a logout button becomes visible.

In the script, I would use an assertion to verify one of these conditions. If the condition is met, the login is confirmed as successful; otherwise, the test would fail and report an error