INDIVIDUAL ASSIGNMENT

LEVEL 4

COMP4003 – Software Development and Application Modelling

CF2321 COM

ASSIGNMENT 2 – PART 2

DUE ON: 29TH SEPT 2023

INSTRUCTION TO CANDIDATES

1. **Students are advised to underpin their answers with the use of references (cited using the Harvard Referencing Style).**

2. **Late submission will be awarded zero (0) unless extenuating circumstances (EC) are upheld.**

3. **Cases of plagiarism will be penalized.**

Contents

Contents 2

Introduction 3

Use Case Diagram 4

Class Diagram 5

Use Case: Add New Item of Stock 6

- Activity Diagram 6
- Sequence Diagram 7

Use Case: Add Quantity to Stock 8

- Activity Diagram 8
- Sequence Diagram 9

Test Plan 10

Introduction

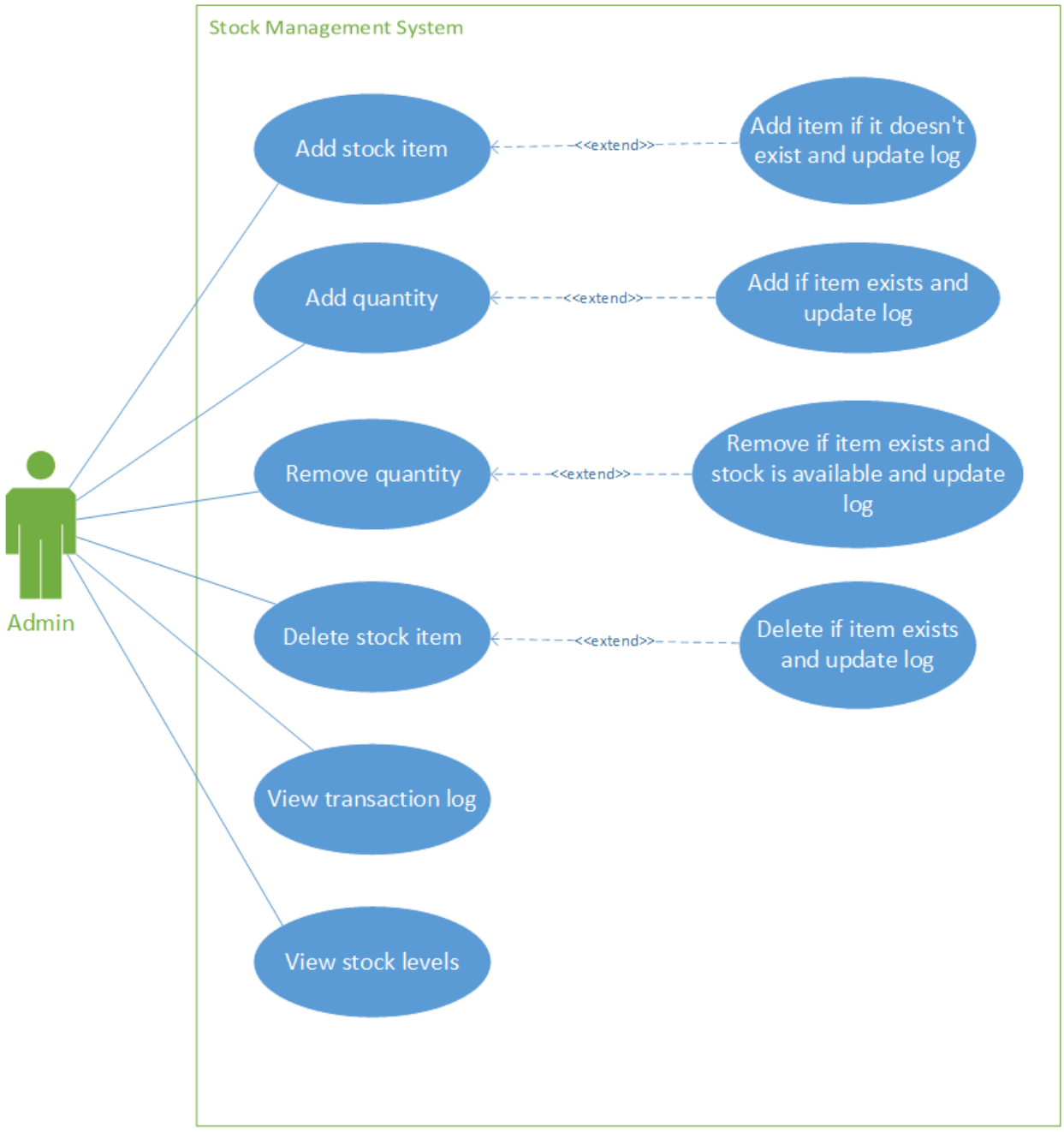
- Module: SDAM-2
- Lecturer: Mr. Upul Anuradha
- Semester: Year 1, Semester 2
- Student: Tehaan Perera (CB012129)

This is the report for the SDAM2 individual assignment. The scenario given was an application for a stock management system which had 6 use cases. As per the requirements, I was supposed to design a UML Use Case diagram for all 6 use cases. Furthermore, I was to pick 2 out of the 6 use cases and draw the relevant UML Class diagram, 2 UML activity diagrams and 2 UML Sequence diagrams (1 for each use case) and develop a Windows Forms App using C# for the chosen use cases.

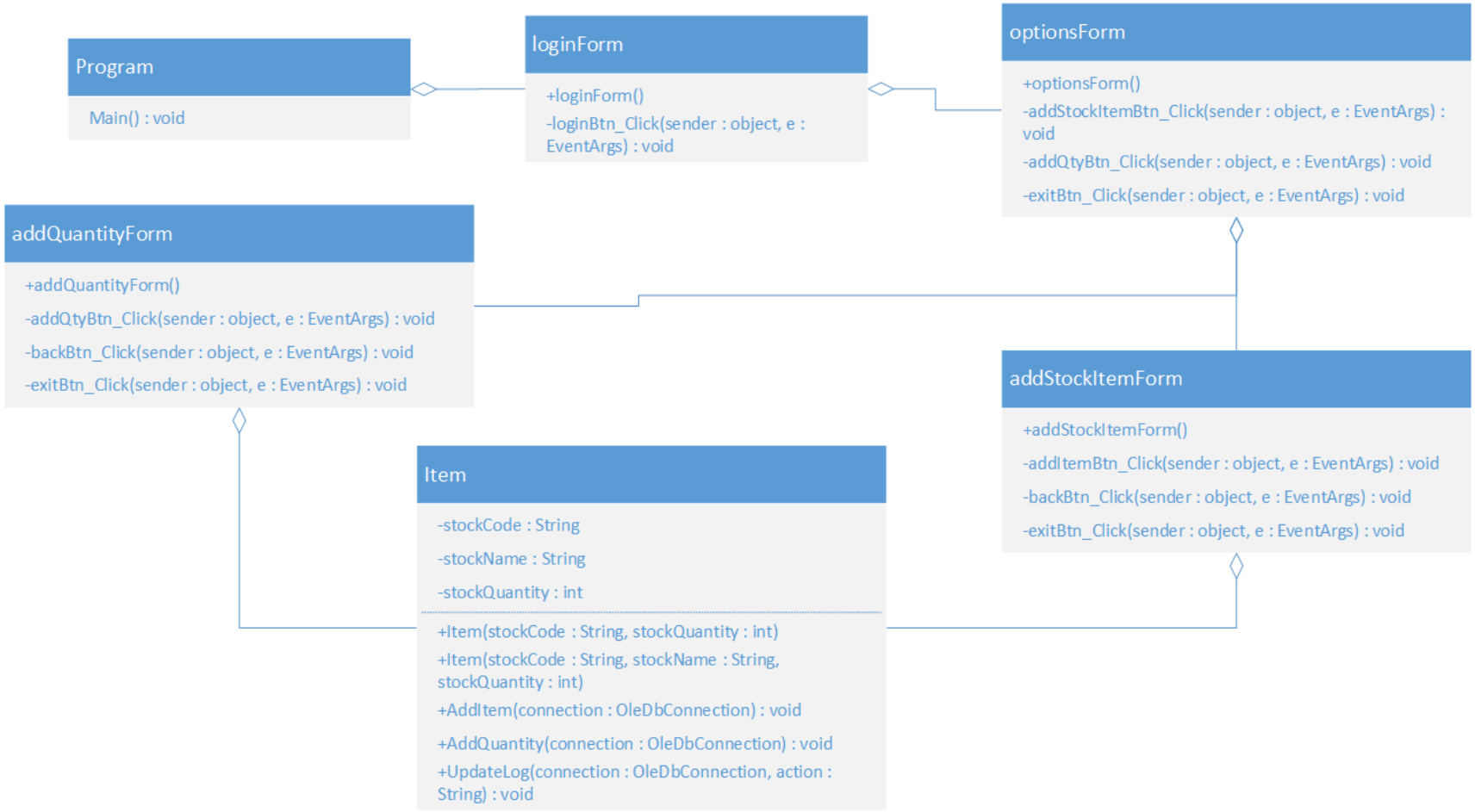
The chosen use cases are,

- Add new item of stock.
- Add quantity to stock item.

Use Case Diagram

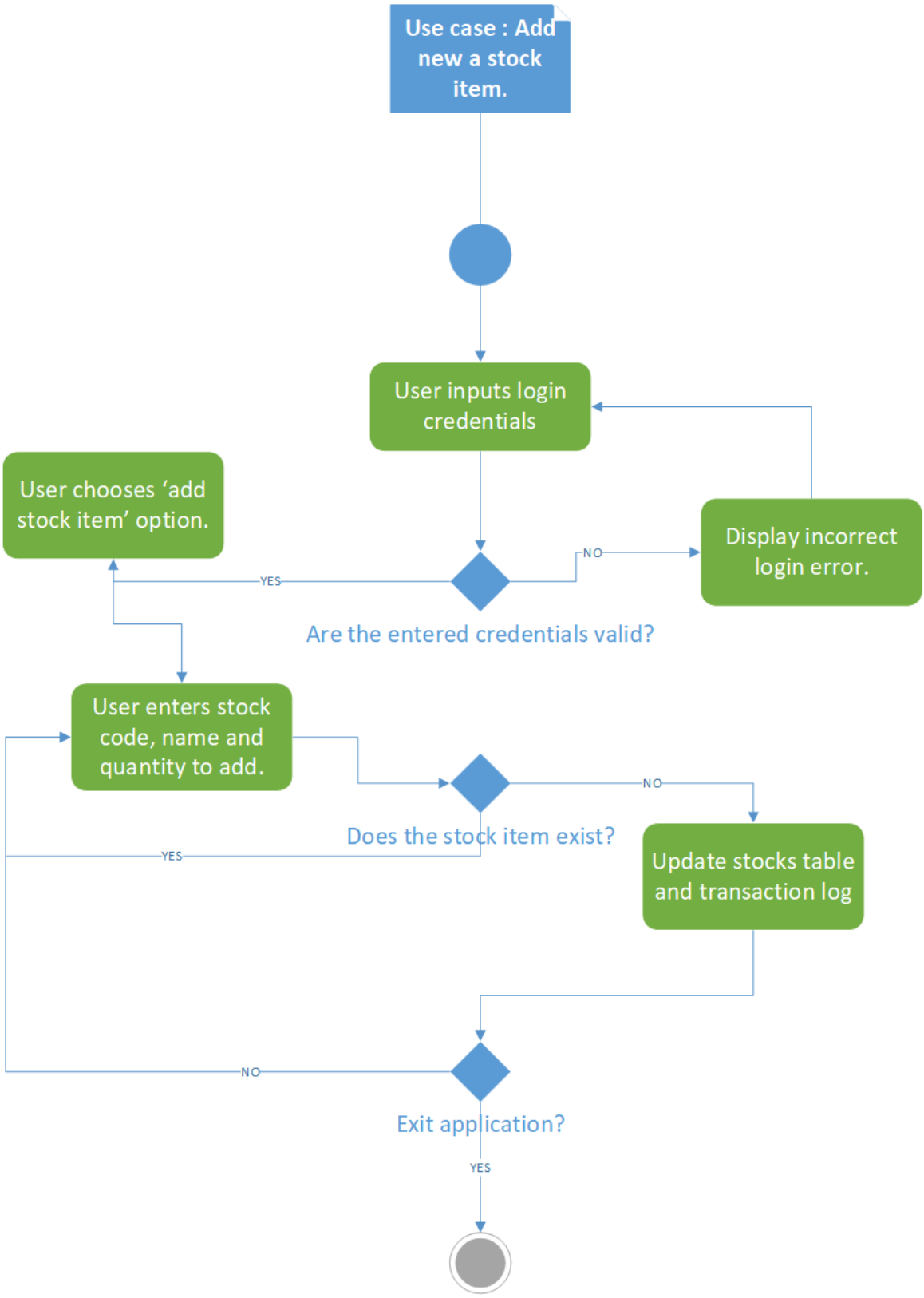


Class Diagram

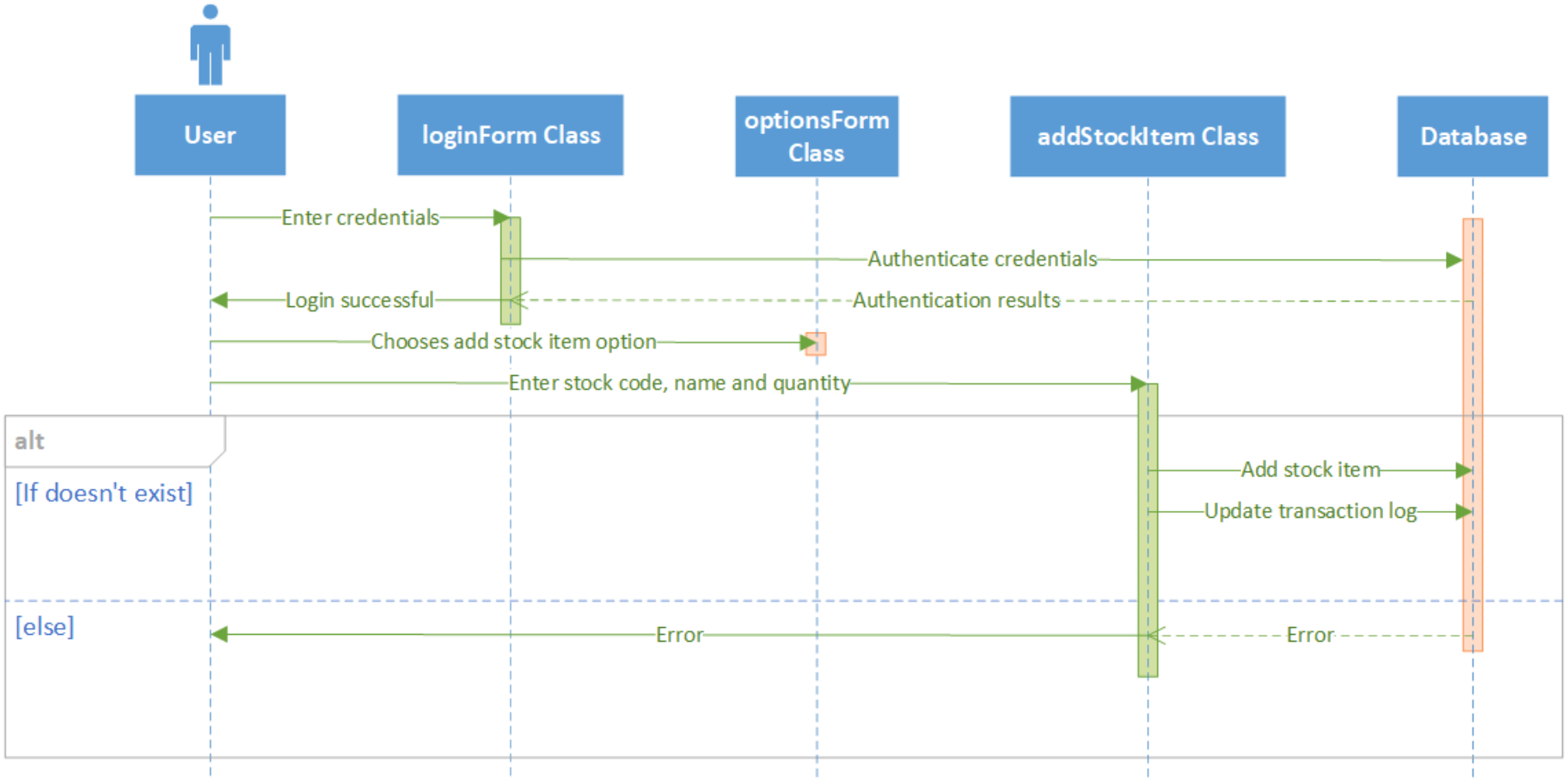


Use Case: Add New Item of Stock

Activity Diagram

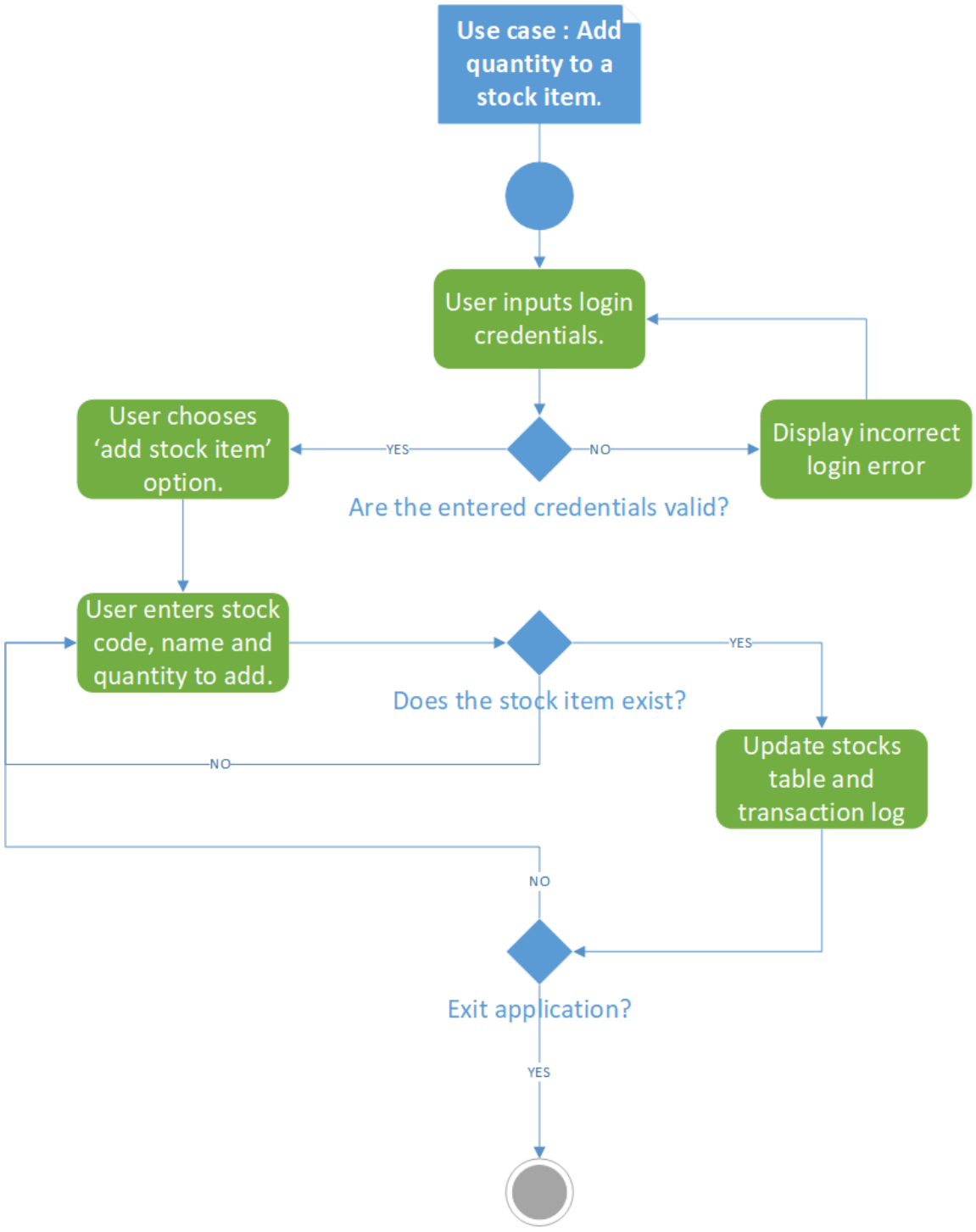


Sequence Diagram

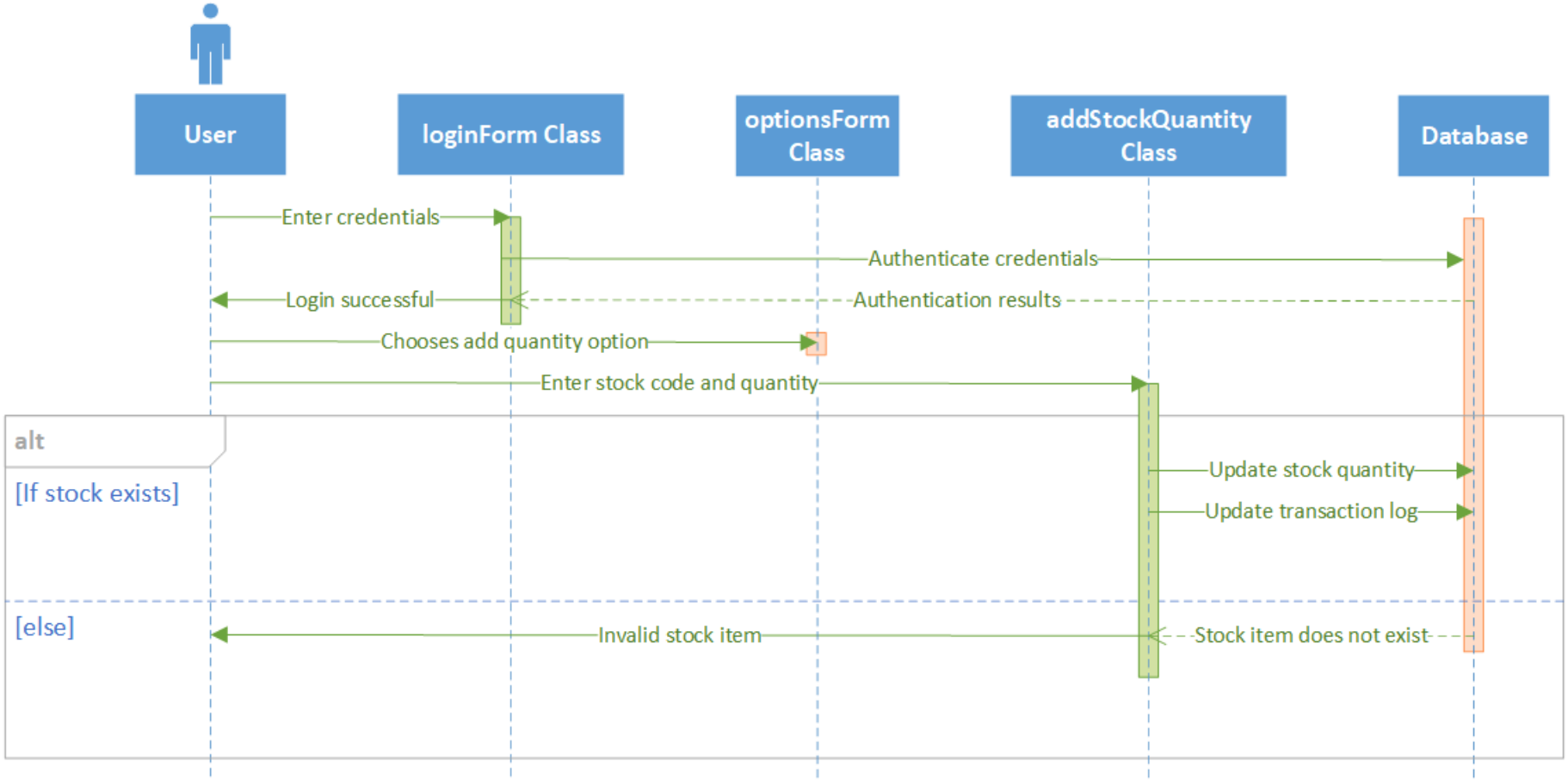


Use Case: Add Quantity to Stock

Activity Diagram



Sequence Diagram



Test Plan

Test Case #	**Test Case Description**	**Test Data**	**Expected Result**	**Actual Result**	**Pass/ Fail**
1	Logging in with correct credentials	**Username** :: **Password** admin :: admin user :: user	Login attempt should be **successful**.	Login attempt is **successful**.	Pass
2	Logging in with incorrect credentials	**Username** :: **Password** admin :: user user :: admin	Login attempt should be **unsuccessful**.	Login attempt is **unsuccessful**.	Pass
3	Adding a new stock item	Stock code: 10 Stock name: stockItem10 Quantity: 1000	Stock item should be added, and log **should** be updated.	Stock item is added, and log is be updated.	Pass
4	Adding quantity to existing stock item	Stock item code: 4 Quantity:1000	400 **should** be added to stock item 4 quantity.	400 is added to stock item 4 quantity.	Pass
5	Leaving empty input fields	Stock code: [NULL] Quantity: [NULL]	An exception should be thrown, and **program should continue**.	Format exception is thrown, and **programs continues.**	Pass
6	Invalid input type	Stock code: 11 Quantity: abcd	An exception should be thrown, and **program should continue**.	Format exception is thrown, and **programs continues.**	Pass