

# **CS3201: OBJECT ORIENTED PROGRAMMING LABORATORY**

*Topic: Exceptions, Revision Exercises, Inline functions*

**Lab: 08**

**Date: 10/05/2024**

## **SPOT QUESTIONa**

1. You are tasked with creating a C++ program for a hospital patient management system. The system should allow hospital staff to admit patients, discharge patients, and view the list of admitted patients. Implement exception handling to handle the following scenarios:

- Attempting to admit more patients than the hospital can accommodate
- Attempting to discharge a patient who is not admitted
- Attempting to discharge a patient with unpaid bills
- Attempting to admit a patient with invalid data (e.g., negative age, invalid name)
- Attempting to admit a patient when the system is in emergency mode (e.g., database server down)

2. You are developing a secure online banking system in C++. The system should allow users to check their account balance, deposit money, withdraw money, and transfer money to other accounts. Implement exception handling to handle the following scenarios

- Attempting to withdraw more money than the account balance
- Attempting to transfer money to an invalid account number
- Attempting to deposit a negative amount of money
- Attempting to deposit money when the system is in maintenance mode (e.g., database maintenance)
- Attempting to transfer money when the system is under a cyber attack