

# BSc (Hons) in Information Technology Year 1

#### **Tutorial 4**

## **IT1010** – Introduction to Programming

Semester 1, 2021

#### **Exercise 1: Practice to write an if statement**

Write a C program to input an integer from the keyboard and convert the number into a positive number, if the user input is a negative value.

Hint: if x is negative, -x is positive;

Eg: if user enters 5, display 5 if user enters -2, display 2

### Exercise 2: Practice to write if... else statement

Assume that you are supposed to write a C program to update the bank balance of a customer based on the transactions performed (withdrawals/ deposits) by the customer.

Implement the program by following the given steps.

- i. Prompt the user to input transaction type (Withdrawal/ Deposit)
- ii. Read the user input from the keyboard using getchar() function (w withdrawals, d deposits)
- iii. If the user input 'w' or 'W', display message "You have selected to withdraw money". If the user input'd' or 'D', display message "You have selected to deposit money". Otherwise display an error message "You have selected an invalid transaction type" and terminate the program.
- iv. Modify the above program to input the bank balance and the amount.
- v. Based on the selected transaction type (withdrawal or deposit), display the new balance.

#### Exercise 3: Practice to write an if...else statement

Write a C program to create a simple calculator. The program should allow the user to enter two numbers and an operator. The operators are

- 1. +
- 2. -
- 3. \*
- 4. /

You should print an appropriate error message if the user enters invalid operator. Use nested if-else statements in your program.

## **Exercise 4: Practice to write a switch statement**

Rewrite the calculator program using a switch statement.