University of Sri Jayewardenepura, Sri Lanka

**Bachelor of Information and Communication Technology Semester 1**
**ITC 1063 – Fundamentals of Programming**
**Laboratory Exercise 8**

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1. Write the Bank ATM C program in Lab Exercise 6 **using at least three functions** (deposit, withdraw, and balance Check).

   Write a C program to duplicate the functions of a *Bank ATM*. Create *a variable to hold* the *balance* of your account and *assign an initial value* at the beginning. The ATM should provide the following functionalities.

   i) Display a welcome message

   ```
   Welcome to the ABC Bank!
   ```

   ii) Then there will be display options to be selected.

   ```
   Select one of the options from the following list
   and enter the number

   1. Deposit     2. Withdraw      3. Check Balance

   Your choice:
   ```

   iii) If a deposit is selected, display a message to enter the deposit amount.

   ```
   Enter the amount to deposit:
   ```

   Then *add the amount* that the user entered *to the balance*.

   iv) if withdraw is selected, display a message to enter the withdrawal amount.

   ```
   Enter the amount to withdraw:
   ```

Then *user input amount should be validated* by checking *whether the balance is sufficient*. If the balance is less than the withdrawal amount a message should be displayed.

```
Your balance is Insufficient to withdraw that
amount of money
```

v) If Balance is selected, Display the balance.

```
Your balance is 40000
```

2.

i) Write a C program to **get the temperature in Celsius** as a user input and
**Convert it to Fahrenheit**. The conversion should be done **in a separate function**.

ii) Add **another function** to convert **Fahrenheit to Celsius**.

iii) Extend the program to get the user choice, Fahrenheit or Celsius (similar to Bank ATM) before the temperature is entered. Depending on the user's choice, the temperature is converted to a relevant unit using one of the functions created in i) and ii).

3. a) Write a C program to create a **simple calculator**. First, it will prompt the user to **choose the operation choice** (from 1 to 5). Then it asks the user to input two integer values for the calculation. **Each operation** should be written **in different functions**.

   This program **should run an infinite number of times** until you stop the execution.

   See the sample below.

```
MENU
1. Add
2. Subtract
```

```
3. Multiply
4. Divide
5. Modulus

Enter your choice: 1
Enter your two numbers: 12 15
Result: 27
```

**How to Submit:**

Create a zipped file with all the source files (.c files). Rename the zipped file with your index number and the lab exercise number as follows.

**ict23801_lab8.zip**

Follow the naming conventions as it is. All letters **are lowercase**; between index number and lab exercise number, use **underscore** (_).