Lab 2 (29/8/25)

1. Mixed Data Type Expression Evaluation

Write a C program that:

- Accepts three inputs: an integer, a floating-point number, and a character.
- Performs the following:
    - Multiply the integer with the ASCII value of the character.
    - Divide the floating-point number by the integer.
    - Display the result in **all possible formats** (%d, %f, %c, %e) and explain the difference.

2. Largest Among Mixed Data Types

Take an integer, a double, and a float as input.

Find and print the largest among the three using if-else without using any built-in functions.

3. Character and Integer Relationship

Write a C program to:

- Input a **character** and perform:
    - Convert it to uppercase and lowercase without using library functions.
    - Display its ASCII value and perform arithmetic by adding 5 to it.

4. Leap Year & Character Check

Take an integer year and a character symbol as input.

If the year is a leap year and the character is 'L', print "Leap Confirmed".

Else if the year is leap but character is not 'L', print "Leap but wrong symbol".

Otherwise, print "Not Leap".

5. Multiple Mixed Conditions

Take inputs: temperature (float) and weather (char).

- If temperature > 30.5 and weather = 'S' (Sunny), print "Hot Day".
- If temperature < 15 and weather = 'C' (Cold), print "Cold Day".
- Otherwise, print "Moderate Day"

6. Compare ASCII and Numeric Value

Take an **integer** and a **character**.

- If ASCII value of character equals the integer, print "Match".
- Else if ASCII value > integer, print "Char is greater".
- Else, print "Integer is greater".

7. BMI Calculation with Category

Take **weight (float)**, **height (float)**, and **gender (char)**.

- Calculate BMI = weight / (height * height).
- If gender = 'M' and BMI > 25, print "Overweight Male".
- If gender = 'F' and BMI > 24, print "Overweight Female".
- Else, print "Normal".