

# Foundations of Technical Programming

## Week 4

You may be asked to demonstrate/explain your work to the tutor, if you are absent/unavailable or fail to demonstrate properly, zero marks will be awarded.

### Task 4.1

Write a C Program that reads 3 marks of a student namely M1, M2 and M3. The student to be declared as "Pass" only if the student has scored more than or equal to 60 in all subjects and the average is above 65. (Use logical operators to combine conditions)

### Task 4.2

The Fibonacci numbers are the numbers in the following integer sequence. 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

Create a C-program, that will generate the Fibonacci series and prints them. Your program should read a number as input and prints that many steps in the Fibonacci series as the output.

**Sample:**

Enter a number: 7

The Fibonacci series: 0, 1, 1, 2, 3, 5, 8

Enter a number: -9

Invalid Input. Please enter a correct number.

Enter a number: 12

The Fibonacci series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89

### Task 4.3

Create a C-program, that will read an integer (2 to 5 digits) number and prints the sum of the digits as the output.

**Sample:**

Enter a number (2-5 digits): 4538

Sum of the digits: 20

Enter a number (2-5 digits): 2

Invalid Input. Please enter a correct number.

Enter a number (2-5 digits): 123

Sum of the digits: 6

### Task 4.4

A player rolls a six-sided dice with numbers 1 to 6, if the player gets an even sided die the player wins but if the player gets an odd number the player loses. Write a complete C program to solve this problem. Use rand() function to simulate the random numbers for rolling dice.