

RP / IPRC KIGALI  
ICT DEPARTMENT  
CLASS: YEAR 1 IT

## **ITLDS601: Data Structures & Algorithms Using C**

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### **ASSIGNMENT #1**

- 1) Write an Algorithm that will read a number and decide if the number is a prime number or not.
- 2) Write an Algorithm that will read two numbers from the user and display all odd numbers within the interval between the entered numbers.
- 3) Write an Algorithm that will read two numbers and calculate their Greatest Common Divisor.
- 4) Write an Algorithm that will read two numbers from the user and display all prime numbers within the interval between the entered numbers.
- 5) Write an algorithm to display the Fibonacci sequence of numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...  
(where the  $X_n = X_{n-1} + X_{n-2}$ ). The number of terms to be displayed will be input by the user.

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**NOTE: The answers must be uploaded on  
the eLearning platform not later than  
Wednesday 21/July/2021 23:59:59**