

# Introduction to Computer Science

## Laboratory 7

1. Finish the first 4 exercises present in the 7<sup>th</sup> tutorial.
2. Write a C program that takes a year from standard input and determines if is leap or not. A year is leap when is a multiple of 4, except for years divisible by 100 but not by 400.
3. Write a C program that given 2 dates calculates how many days are between them.
4. Write a C program that receives as an input a sequence of characters and counts the vowels letters and the consonant letters in said sequence.
5. Write a C program that takes as input a sequence of characters and highlights in bold all the words that start with a vowel.
6. Write a program that takes as input a sequence of integer numbers and prints the third greatest number.
7. Write a C program that, given a sequence of integer numbers determines if the sequence is ordered in ascending order or not.
8. Write a C program that takes as input a number k from 0 to 100 and a sequence of characters. Then prints the sequence with all characters shifted k positions forwards in the ASCII table. e.g. for the sequence "Hello" and the key 3, the result should be "Khoor".
9. Write a C program that takes as input a number k from 0 to 100 and a sequence of characters. Then prints the sequence with all characters shifted k positions backwards in the ASCII table. e.g. for the sequence "Khoor" and the key 3, the result should be "Hello".