**LAB1&2**

***I. LAB1 - Basic lessons:***

***Lesson 1*** : Print to the screen composite numbers <100. (*Composite number is natural numbers greater than 1 and must be divisible by a number > 1 and itself.)*

***Lesson 2*** : Print out 15 second prime numbers.

***Lesson 3*** : Print out the screen all prime numbers from 1000 to 2000.

***Lesson 4***: Print out the screen the numbers <100 and divide by 5 or 6.

***Lesson 5:*** Print the first 4 perfect numbers on the screen (*Perfect number is the number that equals the sum of its divisors including 1*)

***Lesson 6*** : In the natural numbers <= 100 count how many numbers there are:

- Divide by 7.

- Divide 7 with the remainder 2.

- The end digit is “7”.

***Lesson 7:*** Given any natural number N> 1 (previously assigned). Print out the successful development of prime numbers from small to large.

*Example:*  9 --> 3.3 12 --> 2.2.3

***Lesson 8:*** Given any natural number N (previously assigned). Print out all the different prime divisors of N.

***Lesson 9:*** Given an array of natural numbers, write a program that:

* Arranges this array in descending order.
* Print out the screen all prime numbers of this array.
* Count how many prime numbers there are in the above array, how many composite numbers there are.

***Lesson 10***: Given an array of integer numbers, delete the array with the elements = 0 and print out the rest of the array on the screen.

***II. LAB2 - String:***

***Lesson 1***: Given a string that is the full name of the person, but there may be extra spaces when typing. Please remove extra spaces and print out the correct name.

***Lesson 2*** : Given any string of characters. Count how many times the string "abc" appears in the string. Indexof

***Lesson 3*** : Given a string consisting of all characters 0, 1. Let's transform this string in a way 0 -> 1, 1-> 0 and print the result.

***Lesson 4*** : Given a string of S. Please convert S according to the following rule: the number turns into "$" and the other characters remain.

***Lesson 5*** : Given an array of string S1, S2 ... Sn. Find and print the longest string element.

***Lesson 6*** : Give a students list with the fullname of students. Count how many Students that first name’s "An".

***Lesson 7*** : Give a students list with fullname of students. Count how many of you have the "Hoa" padding.

***Lesson 8:*** Give a students list with fullname of students. Count how many students that their last names starting with the letter "T".