Alexandria University

Faculty of Engineering - SSP Program
Computer and Communications

Engineering Department

CC552: Net-Centric Computing
Term 9th
Lab 1
Assigned: 13 October 2019
Due: 26 October 2019

-------------------------------------------------------------------------------------------------------------

# GO Language Lab #1

1) Write a program that will take a year and report if it is a leap year.
2) Write a program that calculates the moment when someone has lived for 10^9 seconds.
3) Write a program to find the difference between the sum of the squares and the square of the sums of the first N natural numbers.
4) Write a program that, given a number, can find the sum of all the multiples of this number up to number N but not including that number.
5) Write a program that will convert a binary number (e.g. 101010), to its decimal equivalent using first principles.
6) Write a program to check if a string is palindrome or not.
7) Write a program to compute the prime factors of a given natural number.

## Bonus

Write a program that implements a binary search algorithm.

## Grading Policies

- You should work in groups of 2 students.

- Plagiarizing is not acceptable. Sharing code fragments between groups is prohibited and this action will be severely penalized.

## Links that may help you completing this lab

1) https://golang.org/doc/

2) https://www.geeksforgeeks.org/go-programming-language-introduction/

3) https://www.tutorialspoint.com/go/index.htm

4) https://www.restapiexample.com/golang-tutorial/working-with-golang-date-and-time/

**Good Luck**

DR. Yasser Fouad

Eng. Ahmed Ashraf