**CEIT 211 Lab 2**

1. Write a complete C program which consists of a function called find\_minmax() that accepts three integer numbers and returns the largest and smallest ones through parameters
2. Write a complete C program which consists of a function named days() that accepts a quantity value in days and returns the equivalent in years, months, and days through parameters
3. Write a complete C program which consists of a function called rectangle() that accepts 2 side dimensions and returns its area and perimeter through parameters
4. You are asked to write a Simple Calculator program which involves the following categories with calculation operations. For each operation, you should write a separate function.

**Mathematics**

* + *Slope*: calculates the slope of a linear function
  + *Equilateral triangle*: Calculates the perimeter, area and height of an equilateral triangle from the value of the side using the following formulas.

**Life**



* + *Time Conversion*: converts time in seconds to hours, minutes and seconds
  + *Temperature Conversion*: Converts the temperature in Celsius to the “Kelvin (K)”, “Fahrenheit (F)” and “Rankine (R)”.



**Science**

* + *Velocity:* Calculates the velocity from the travel time and distance. v=d/t
  + *Distance between two places on earth:* Calculates the distance between two places from latitudes and longitudes using the following formula.

Place A (x1,y1): x1(longitude); y1 (latitude)

Place B (x2,y2): x2(longitude); y2 (latitude)



where r(Earth's radius) is 6378.137 km.

The function calls are given below and your task is to complete the program so that the following sample run is obtained.

**Function Calls:**

slope = calculate\_slope(a,b);

calculate\_elements(side, &height, &area, &perimeter);

seconds\_to\_hms(&seconds, &hours, &minutes);

calculate\_temperature\_units(c, &k, &f, &r);

v = calculate\_velocity(t,d);

d = calculate\_distance(x1,y1,x2,y2);

