

**SD-240 Mathematics for Computing**

**Calculator Project**

*\*\*Note: This assignment is to be done individually; you are not allowed to work on this assignment with anyone. This assignment is due at June 10th before class starts (2:15pm)*

The goal of this project is to create a Calculator that will perform some basics mathematical operations as listed below. The behavior of this application should be similar to the Windows calculator. The student can use any resource to find information on how to perform the calculations and should decide how the application will look like visually. The application should be developed using C# as the programming language and WPF (Windows Presentation Foundation) for the UI.

**Requirements:**

- Perform the basic mathematical operations: addition, subtraction, multiplication and division.

- Handle decimal and negative numbers.

- Calculate modulus.

- Calculate power.

- Calculate factorial.

- Calculate square root.

- Convert an integer number to hexadecimal, octal and binary.

- Calculate percent conversion between decimal and the percent representation.

- Calculate weight conversion between milligrams, grams, kilograms, ounces and pounds.

- Calculate temperature conversion between Celsius and Fahrenheit.

- Calculate length conversion between millimetres, centimeters, meters, kilometers, inches and feet.

- Calculate file size conversion between bytes, kilobytes, megabytes, gigabytes and terabytes.

- Calculate time conversion between hours, minutes and seconds.

**Submission Guidelines:**

The student should create a private repository on GitHub and submit the link to the instructor via private message on Slack.

**Failure to follow any of the instructions above will result in penalties or get a grade of 0.**