**Name :** SOMESSWARAN A/L JAYADASAN

**Time Taken :** 5 hrs (including testing & bug fixing)

**Part Not Completed :** Double bracket

**Link :** https://github.com/somes56/ConsoleCalculator.git

**Summary**

This calculator is created in C# console. Three methods Calculate, Brackets and Solve are created to calculate the inputs.

In Main method, Equations a string array is created and input given in instruction sheet is assigned and looped by foreach to call Calculate method.

In Calculate method, the equation send from Main method as string parameter is checked contains any mathematical operator like +-\*/() and calls Solve method for +-\*/ operators or Bracket method for () operators.

In Bracket method, the equation send from Calculate method as string parameter is splitted in an array by space and while loop is called untill IsCalculated is false to get indexes of () operators from the array to obtain the equation inside bracket and call Solve method to compute. Once answer is returned from Solve method, elements in the array starting from open to close bracket is replaced with answer and returns to Calculate method. While loops ends when all brackets are solved.

In Solve method, the equation send from Calculate or Bracket method as string parameter is splitted in an by space and while loop is called until IsCalculated is false to index of +-\*/ operators from the parameter to identify the operator and compute. Once computed, element in the array starting from before and after operator is replaced with answer and returns to Calculate or Bracket method. While loops ends when all operators are solved.