Data Structure
Assignment

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1) Your assignment is to write a "calculator" application as follows:

     a. The program read the expression from the console, and the answer should be printed on the console.

     b. Example of the user input: ((43*(30-12))+(80/5)*2)

     c. First of all, the program has to check if the brackets are a match or not?

     d. If yes, the program has to evaluate the values using the arithmetic expression algorithms given in the class.

     e. Assume that all numbers are one or two digits integers.

2) Your second part of the assignment is to write a program that reads a file called "**balance**". This file has three different brackets { , (, [,] ,) }. You need to check if the brackets are balanced or not? For example, if the file contains the following string

A data {structure {is a specialized [format for (organizing and storing data. General data structure types include the array, the file, the record, the table, the tree, and so on. Any data structure is designed) to organize data to [] suit a specific purpose so that it can be accessed and worked] with in appropriate ways. In computer programming, a data structure may be} selected or designed to store data for the purpose of working on it with various} algorithms.

The set of brackets are {{[()[]]}} ➔ balanced