Software Construction and Development Fall 2022

Assignment 2

Due date Tuesday, October 11, 2022

1 Write a Java program to find the largest sum contiguous subarray with the fastest algorithm.

Example
Array elements -3, -4, 5, -2, -3, 2, 6, -4
largest sum contiguous subarray 5+ (-2) + (-3) + 2 + 6 = 8

2 Write a Java program to find a user's day of birth given their date of birth.

3 Write a Java generic program to balance the algebraic expression using a stack, and then compute the expression in the following ways.

Example
Balance   →   (2+2)) = (2+2) = 4
Method 1 →   2+2*2-2 = 6
Method-2 →   2+2*2/2*2 = 6

4 Write a Java program to sort the stack elements.

5 Write a program to sort the array elements with the fastest algorithm.

6. Write a java program to count the frequencies of stop words in a string. Store the stop words as keys and frequencies as values in the hash-map.

Assumption, your string is initialized with the story of the thirsty crow.