**CSc 2720 - Data Structures: Lab 2**

**How to Submit: Please submit your answers to Lab-2 submission folder on iCollege by 1/22/2021, 11:00pm ET.**

**Problem 1: [100 Points]**

Write a function called isBalancedthat takes a string of braces as input and returns true if the braces in the string are balanced. If there are more ‘{’ than ‘}’ or more ‘}’ than ‘{’ in the string, the function should return false. You should make use of the built-in java implementation of the stack data structure under java.util.Stack **.**

**Example 1:**

**Input:** str =“{}{{{{}}”

**Output:** False

**Example 2:**

**Input:** str =“{{{}}}”

**Output:** True

--------------------------------Function Template------------------------------------

**import** java.util.Stack;

**public class** Lab2 {

**public static void** main (String[]args)

{

String str = "{}{{{{}}";

**boolean** ans=*isbalanced*(str);

System.***out***.println("Answer "+ ans); // Should be False

}

**public static boolean** isbalanced(Stringstr){Stack<Character> stack = **new** Stack<Character>();

// Example of push stack.push("{")

// Example of pop stack.pop()

// Example of isEmpty stack.isEmpty()

// INSERT YOUR CODE HERE

}

}