Lab Assignment #8

- Release date: Oct 19, 2021 (Tuesday)
- Due date: Oct 21st, 2021 (Thursday) 11:59 PM
- It should be done INDIVIDUALLY.
- Please turn in your codes through Blackboard in **one file in .cpp format**. Do **NOT** compress/zip your submission. This is to ensure faster grading.
- Please name your submission file starting with "LastName_FirstName_Lab08"
- Total: 30 pts

Problem:

Write a single program to do the following:

Given a binary tree, your program will

a) Check if the tree is a binary search tree or not.   [15 pts]

b) Check if the tree is balanced or not.   [15 pts]

Help:

Input for the tree can be given as in this example:

```
node *root = new node(4);

root->left = new node(2);

root->right = new node(5);

root->left->left = new node(1);

root->left->right = new node(3);
```