CL2001 – Data Structure Lab

Lab Task # 10

Note:

- Copied task will be awarded **zero** marks.
- Use comments wherever applicable.
- Submit a pdf file containing all your C++ code with all possible screenshots of every task output on Google Classroom. The name of file should be your roll no followed by your name (roll-no-name.pdf) i.e., (24P-1234-Ali.pdf).
- Variables and functions names should be meaningful.

Problem: 1

Create a BST and find the maximum and minimum values in the tree.

Problem: 2

Create a BST to find the successor and predecessor of any target node.

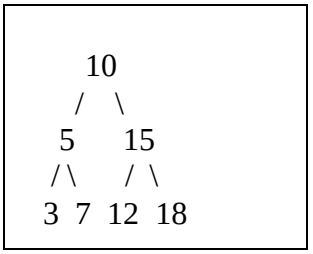
Example: 5, 6, 3, 7, 9, 1, 11, 12 and target is 9 then

- Predecessor (largest value < 9) = 7
- Successor (smallest value > 9) = 11

Problem: 3

Create a BST to check whether the tree has an equal number of nodes in the left and right subtrees.

Example:



Output:

The tree has an equal number of left and right child.

Problem: 4

Write a recursive function to insert the new node after the target value in BST.