

CL2001 – Data Structure Lab

Lab 7 Task:

Problem: 1 | Power of Three

Given an integer n , return true if it is a power of three. Otherwise, return false.

An integer n is a power of three, if there exists an integer x such that $n = 3^x$.

Example 1:

Input: $n = 27$

Output: true

Example 2:

Input: $n = 0$

Output: false

Example 3:

Input: $n = 9$

Output: true

Problem: 2 | Power of Three

Perform the Problem 1 using recursion.

Problem: 3 | Multiply two numbers

Write a function for multiply(a , b), where a and b are both positive integers, but you can only use the $+$ or $-$ operators.

Note: Use Recursion to solve the above problem.

Problem: 4 | BST

Implement the following functions for Binary Search Tree.

1. Function to insert a node in BST.
 2. Function to display all the nodes.
 3. Function to search a specific node in BST.
 4. Functions to find the largest and smallest values in BST.
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