CS2023 - Data Structures and Algorithms
In-class Lab Exercise

Week 7

You are required to answer the below questions and submit a PDF to the submission link provided under this week lab section before end of the session time (no extensions will be provided). You can either write / type your answers, but either way your answers should be readable.

Create GitHub repository, add your codes there and add respective link to the submission file.

Exercise:

Modify the given program to implement a binary search tree with the following basic operations. You have to define the below functions to implement the operations.

1. *insertNode*()
2. *deleteNode*()

- Additionally, you have to implement *traverseInOrder*() function to travese the BST in-order.

Do not modify the main function and other utility functions. You may implement any additional utility functions as you need.

Input Format

Each line has two space-separated integers. The first integer is the operator (corresponds to the integer above), while the second integer is the operand.
-1 marks the end of the input sequence.

Constraints

1 <= operator <= 2
-10000 <= operators <= 10000

Output Format

Prints the resulting BST after performing a sequence of insert and delete operations on the BST, using in order traversal. Each number is separated by a space.

Sample Input

```
1 1
1 2
1 3
1 4
1 5
1 6
2 3
-1
```

Sample Output

```
1 2 4 5 6
```

Upload the PDF includes the output from your terminal for the given inputs. Note that the input should be taken at runtime.