FULL STACK DEVELOPMENT – WORKSHEET-A- ANS

1.Program Output:

```
The modified linked list is:
1 -> 2 -> 3 -> 4 -> 5 -> 6 -> 7 -> 8 -> 9 -> null
```

Insertion Cases

1. Insert into Empty Array
2. If value to be inserted less than everything, insert in the beginning.
3. If value to be inserted greater than everything, insert in the last.

2. Program Output:

```
The height of binary tree is: 4
```

The height or depth of a binary tree can be defined as the maximum or the largest number of edges from a leaf node to the root node or root node to the leaf node.

3. Program Output:

```
IT Is a BST
```

Binary Search Tree when,

- The left subtree of a node contains only nodes with keys lesser than the node’s key.
- The right subtree of a node contains only nodes with keys greater than the node’s key.
- The left and right subtree each must also be a binary search tree.

4. Program Output:

```
The expression is not balanced
```

If the current character is a starting bracket then push it to stack.Whenever you hit a closing bracket, search if the top of the stack is the opening bracket of the same nature. If this holds then pop the stack and continue the iteration, in the end if the stack is empty, it means all brackets are well-formed. Otherwise, they are not balanced.

5.Program Output:

```
The left view of Binary tree is:
1 2 4 8
```