

Lab Goal : This lab was designed to teach you more about binary trees.

Lab Description : Write a program that uses nodes to store letters and letter counts. The data structure created for this program is similar to a Map. In each node, you will store a Comparable reference, a count of how many of that Comparable has occurred, and references to the node's left and right nodes.

HistoNode – stores a letter, the letter's count, and references to the node's left and right nodes

```
public class HistoNode
{
    private Comparable data;
    private int dataCount;
    private HistoNode left;
    private HistoNode right;

    public HistoNode(Comparable d, int cnt, HistoNode lft, HistoNode rt){
        data=d;
        dataCount=cnt;
        left=lft;
        right=rt;
    }

    public Comparable getData(){
        return data;
    }

    public int getDataCount(){
        return dataCount;
    }

    public HistoNode getLeft(){
        return left;
    }

    public HistoNode getRight(){
        return right;
    }

    public void setData(Comparable d){
        data=d;
    }

    public void setDataCount(int cnt){
        dataCount=cnt;
    }

    public void setLeft(HistoNode lft){
        left=lft;
    }

    public void setRight(HistoNode rt){
        right=rt;
    }
}
```

Sample Data :

A A A A B V S E A S A A V S E A
 1 2 3 11 22 32 1 22 13
 abc ead xyz xyz abc ead 2342 z2y2z

Sample Output :

A - 8 B - 1 E - 2 S - 3 V - 2
 1 - 2 2 - 1 3 - 1 11 - 1 13 - 1 22 - 2 32 - 1
 2342 - 1 abc - 3 ead - 2 x2y2z - 1 xyz - 2