Lab Goal : This lab was designed to teach you more about a linked list and how to use a linked list to create a data structure.

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. Each node will store a character, a count of how many of those characters have occurred, and a reference to the next node in the list. Each character with its count will occur at most once in the list.

HistoNode – stores a letter, the letter's count, and the next node

```
public class HistoNode
{
   private char letter;
   private int letterCount;
   private HistoNode next;

   public HistoNode(char let, int cnt, HistoNode n){
       letter=let;
       letterCount=cnt;
       next=n;
   }

   public char getLetter(){
       return letter;
   }

   public int getLetterCount(){
       return letterCount;
   }

   public void setLetter(char let){
       letter=let;
   }

   public void setLetterCount(int cnt){
       letterCount=cnt;
   }

   public void setNext(HistoNode n){
      next = n;
   }
}
```

Files Needed ::

HistoNode.java
HistoList.java
HistoListRunner.java

EXTENSION :

Add in a remove method that will remove a letter. If there is more than one of the letter, the count is decreased by one. If there is only 1 of the letter, then that node is removed.

Sample Data :

```
A A A A B V S E A S A A
A B C
A B C A B C A B C A B C A B C
```

Sample Output :

```
E - 1     S - 2     V - 1     B - 1     A - 7
C - 1     B - 1     A - 1
C - 5     B - 5     A - 5
```