Lab1 (Due Feb 9)

Write a program for Huffman Coding. You might need to use the *priority queue* and *tree* data structures from the priorityQ.java and tree.java programs. Your program should do the following:

1) Accept a text message (could be multiple lines of text)
2) Create a Huffman tree for this message
3) Create a code table
4) Encode the message into binary
5) Decode the message from binary back to text

If the message is short, the program should be able to display the Huffman tree after creating it. You can assume there are only letters, space, returns in the message. You can use String variables to store binary numbers as arrangements of the characters 1 and 0. Don't worry about doing actual bit manipulation unless you really want to. A sample output of the program is available on D2L.