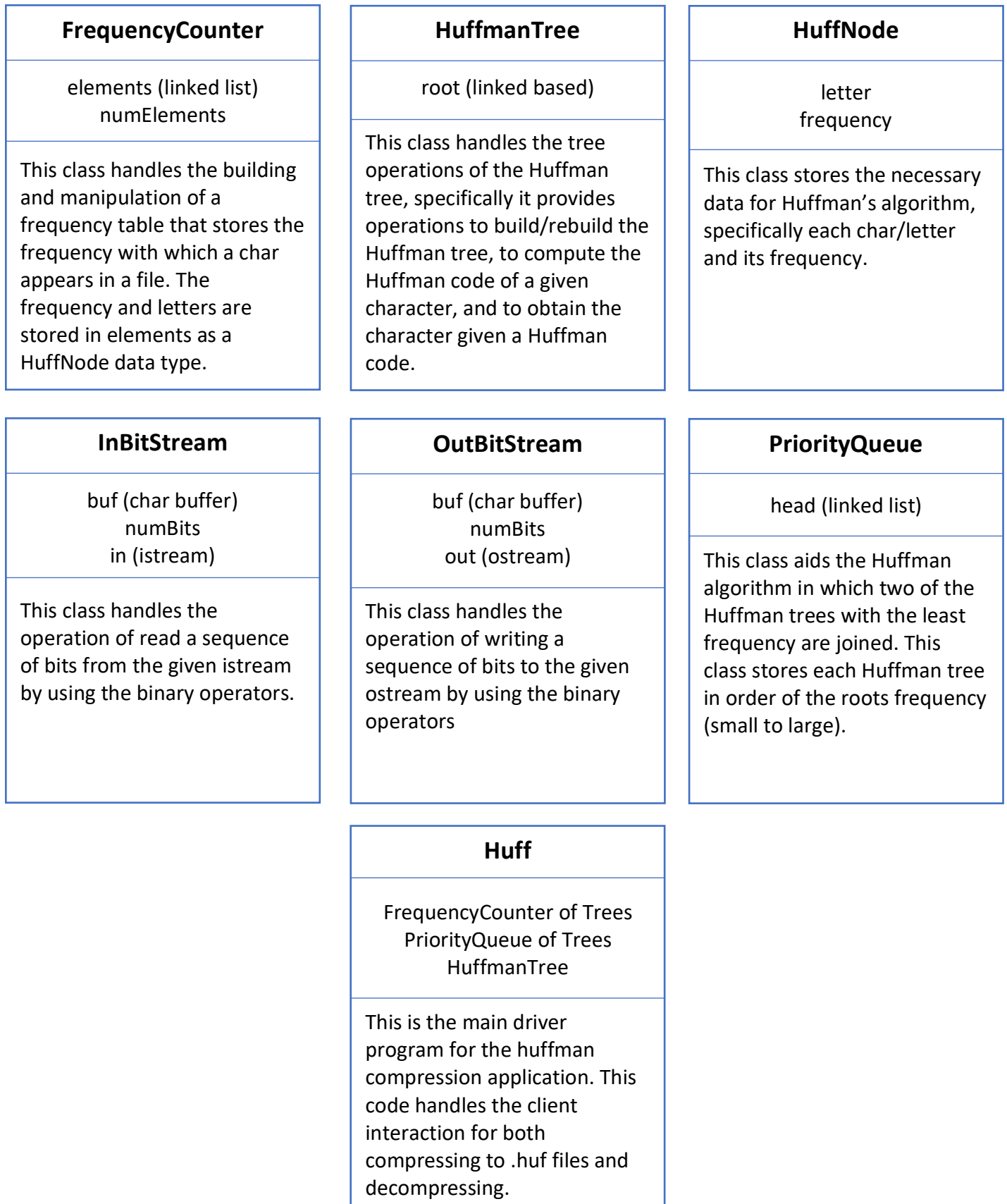


UML Class Diagrams:



Compressed File Format:

This program will compress data into a compressed .huff file, these files have the format seen below with each section also defined below.

Compressed Huffman Tree: This is used to rebuild the Huffman tree when decompressing. This tree is compressed by traversing the tree in order and using the following technique: if current node is a leaf output '1' bit followed by the nodes letter character, else if current node is not a leaf then output '0'. For example, the Huffman tree built of the input string "that's the way it is" would take the form 0001h1a01s1i00001'1e01w1y01t1<space> where <space> is the empty space character.

Compressed Data: This is the actual in file data compressed using Huffman's algorithm.

EOF Marker: This tells the program when to stop reading the compressed data. Only bytes can be written to a file so using Huffman's algorithm which stores bits will naturally have some garbage at the end of the compressed data. The EOF marker allows us to know when we have reached the actual end of the data and ignore the garbage.

