File Compression Tool

Pseudo Code:

The Pseudo code of File Compression Tool consists of Three Parts.

* Huffman Tree Build
* Encoding of the String of character
* Decoding of the string of bits

**Huffman Tree Build**

The Huffman Tree Build Pseudo code is as given as:

It takes an NodesArray as Input of Nodes having Frequency ,Character and data and returns the Pointer to top of the Array.

HuffmanTree(nodearr)

if (nodearr.First == nodearr.Tail)

top = nodearr.getTop

return

else

node = new HeapNode

newnode->left = nodearr.getmin()

newnode->right = nodearr.getmin()

newnode->setfrequency(newnode->left->getfrequency() + newnode->right->getfrequency())

nodearr.add(newnode)

HuffmanTree(nodearr)

**Encoding**

The Encoding of the String Pseudo Code is given as:

It takes two Input from top of the tree and string X and Index and give an array of node containing information of coding scheme file

Encode(root,X,index )

if (root->left)

X[index] = '0'

Encode(root->left, X, index + 1)

if (root->right)

X[index] = '1'

Encode(root->right, X, index + 1)

if (!root->left && !root->right)

newHuffNode = new Huffcodes(root->getcharacter(),code, root->getfrequency()) //new node containg information of character.

huffcode[codeindex] = newHuffcode; // array containing info of coding scheme information of characters.

codeIndex++; //index of array containg coding scheme information of character.