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CSC 345

**Huffman Codes Project**

**Description**

This program is designed to recursively encode a message. This message is turned into a list of nodes containing a String and a frequency. This list is sorted from smallest frequency to largest where it is then merged into a tree, branches, and leaves. Once this is complete. The user can run the program using a string value to encode the message. Using binary the user can then decode the message.

**Bug Report**

* Htree-Weight – Returns the same list that you feed it instead of a combined value.
* Weight-inc – Returns same list it is given and does not increment.
* Root – Has not been written yet. Returns nothing.
* Htree-merge – Only merges first and next list. Does not do recursion.

**Technical Information**

* File Location - \home\rk798598\public\_html\CSC 540\lisp\
* Run by cd to location in terminal and run “emacs hcodes.lisp”
* Start slime “M-x slime” or “Esc X slime”.
* Use slime to evaluate all functions.
* Use function “(make-huffman-tree message)”.