Project report

CSE 310 : Project 1 - Milestone

Introduction:

The project goal is to implement variable length encoding and decoding algorithms and in the process understand these algorithms, evaluate the effectiveness and efficiency.

Problems encountered:

- There were a few bugs in the development process. But most of them were code issues or system limitations. Got them resolved by debugging the code.
- The output of the preprocessing was not matching on Gradescope, on discussion with other students I found out that there is an extra newline character that is considered in the Gradescope input.
- The 'E_LEN' constant was defined as 8, but the encoding was exceeding 8 bits. Had to manually create the tree on paper to verify that the logic was correct and in fact the constant needed to be updated.

Known bugs/limitations:

- No known bugs/limitations found as of the latest submission.
- Testing was done using all provided files as well as some manually created test data of my own

Significant interactions:

- Mentioned in the problems encountered.
- Mainly for the purpose of submission formats, search of external reference materials, technical issues, etc.

Citations:

- https://stackoverflow.com/questions/2481269/how-to-make-a-simple-c-makefile
- https://www.programiz.com/dsa/insertion-sort
- https://www.learncpp.com/
- https://en.cppreference.com

Version control:

- https://github.com/ninadgund/CSE310_Project_1.git
    - (Repository is private as mentioned)

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main

Commits on Feb 8, 2022

Testing done, should be final commit
ninadgnd committed 13 minutes ago

50ea294 <>

Implementation done
ninadgnd committed 1 hour ago

ffc8ece <>

Encode step 5 done
ninadgnd committed 3 hours ago

2e5e07e <>

Encode base created. Code cleanup in preprocess
ninadgnd committed 6 hours ago

25fada0 <>

Changed i/o from files to stdio
ninadgnd committed 7 hours ago

9afbdea <>

Working preprocess, i/o to be converted to stdin
ninadgnd committed 7 hours ago

61ac719 <>

Initial commit
ninadgund committed 9 hours ago

Verified 61b65d0 <>

Newer Older