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Project report

CSE 310 : Project 1 – Milestone

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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:

- Some implementation bugs in merge sort, but resolved them after some debugging.
- Since I was developing on windows, and Gradescope uses Linux environment, there were some differences in internal memory management. Had to modify code to make it run cross platform.

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:

- 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.tutorialspoint.com/data_structures_algorithms/merge_sort_algorithm.htm
- https://www.learncpp.com/
- https://en.cppreference.com

Version control:

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

Commits on Feb 8, 2022

Testing done, should be final commit
ninadgnd committed 12 days ago
50ea294

Implementation done
ninadgnd committed 12 days ago
ffc8ece

Encode step 5 done
ninadgnd committed 12 days ago
2e5e07e

Encode base created. Code cleanup in preprocess
ninadgnd committed 12 days ago
25fada0

Changed i/o from files to stdio
ninadgnd committed 12 days ago
9afbdea

Working preprocess, i/o to be converted to stdin
ninadgnd committed 12 days ago
61ac719

Initial commit
ninadgund committed 12 days ago
Verified
61b65d0

Commits on Feb 20, 2022

Updating gitignore
ninadgnd committed 41 seconds ago
027db96

Adding experiments and input data for it
ninadgnd committed 1 minute ago
3f0ac8f

Adding report for phase 1
ninadgnd committed 3 hours ago
90dc588

Adding i/o files for testing records
ninadgnd committed 3 hours ago
e313826

Merge sort tested, bugs fixed
ninadgnd committed 3 hours ago
be080f3

Added gitignore
ninadgnd committed 4 hours ago
1798599

Decoding added, encode debug prints commented
ninadgnd committed 4 hours ago
ae6da68

Mergesort fixes, still not tested
ninadgnd committed 4 hours ago
637168b

Added merge sorting, to be tested
ninadgnd committed 5 hours ago
fe332c1