Project Proposal

Data Structures

Zipper Software

Group Members

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Introduction:

We will recreate an application which is used to perform lossless compression of files, known as WinRar.

Proposed Solution:

We will achieve this by applying the “Greedy Huffman Coding Algorithm”, which is widely used for conventional compression formats like GZIP, BZIP2, and PKZIP. The main idea is encoding and decoding the data using a Huffman tree which is generated by a sorted list of frequencies of letters/bits. Many of the concepts of Data Structures will be used like Sorting, Searching, Queues (Including Priority Queues), Trees, and much more.

The working will be thoroughly shown and displayed using file transfer between two different devices, where one would encode the plain text and the other would decode the cypher text.

Tools and Technologies

Dev C++.