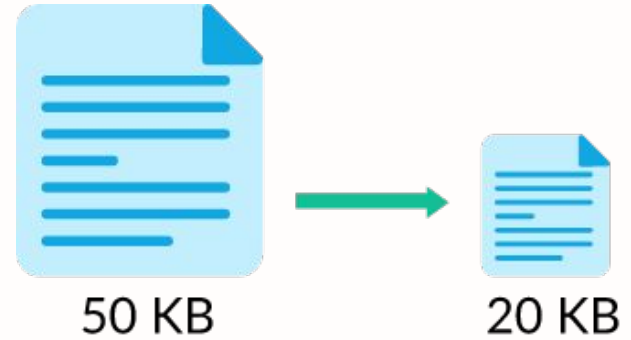


# Problem Statement

## File compression and Decompression using Huffman Coding.

The project compresses .docx and .txt files to a bin file which is an encoded file. The project also decompresses the .bin file to the original .docx or .txt.



# Working

- The application displays a window which allows you to select a .docx or .txt file to compress.
- It also directly allows to select .bin file to decompress.
- After the file is selected it compresses or decompresses accordingly and then asks for the folder to save that file.
- The file is saved at the mentioned location.

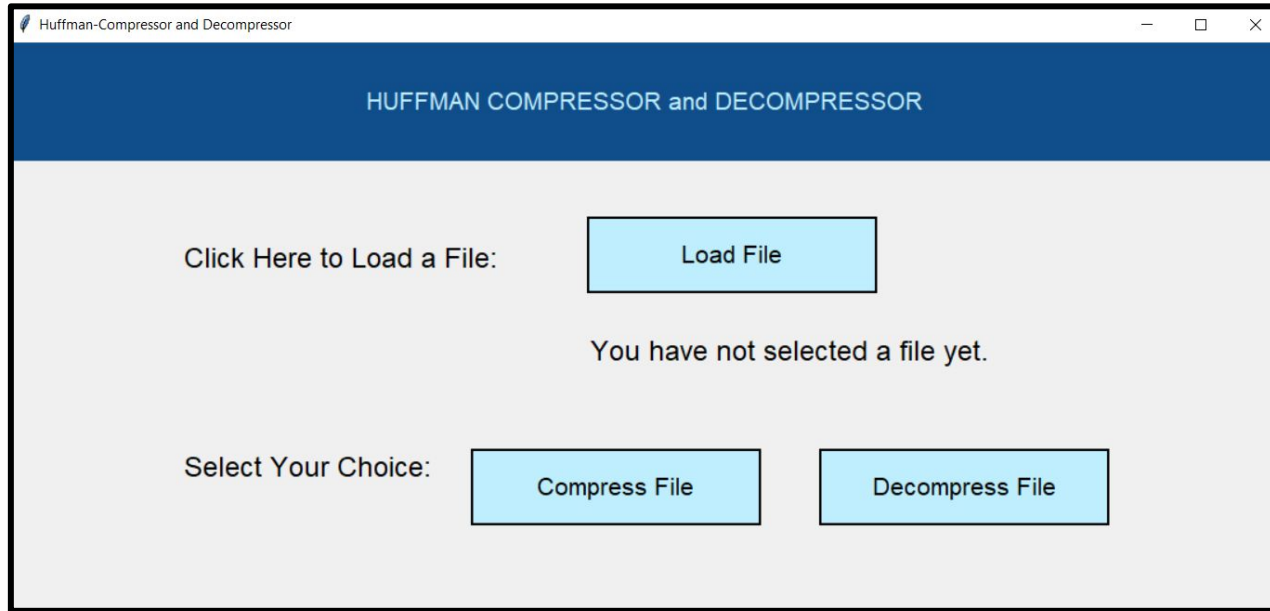
# Huffman Coding

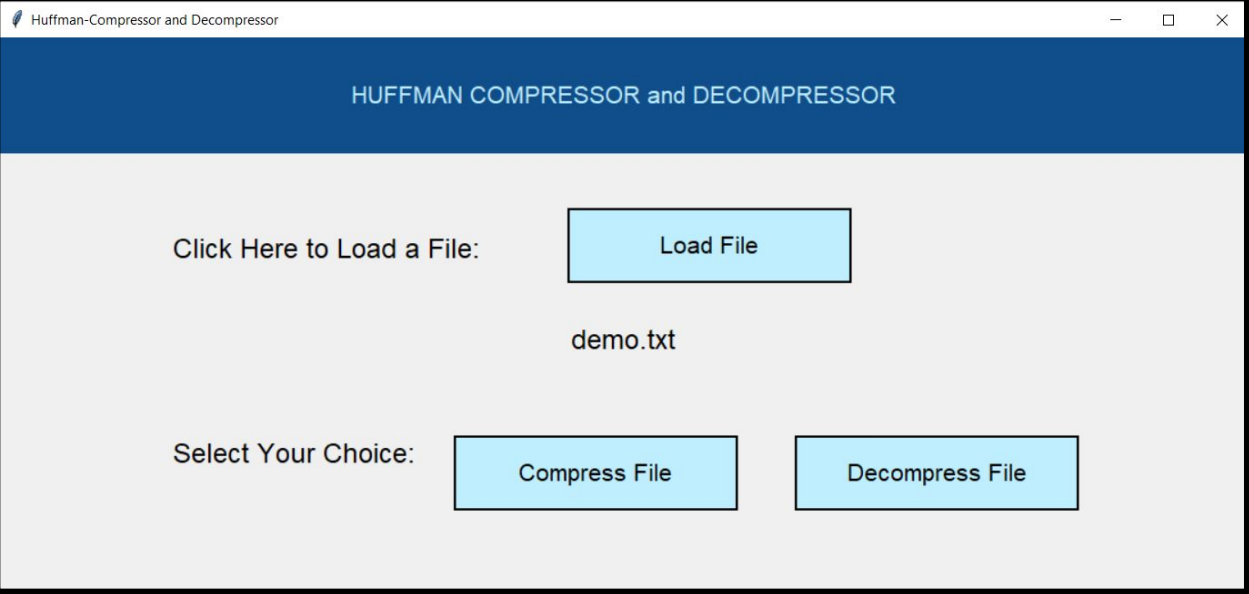
Huffman code is a data compression algorithm which uses the greedy technique for its implementation. The algorithm is based on the frequency of the characters appearing in a file.

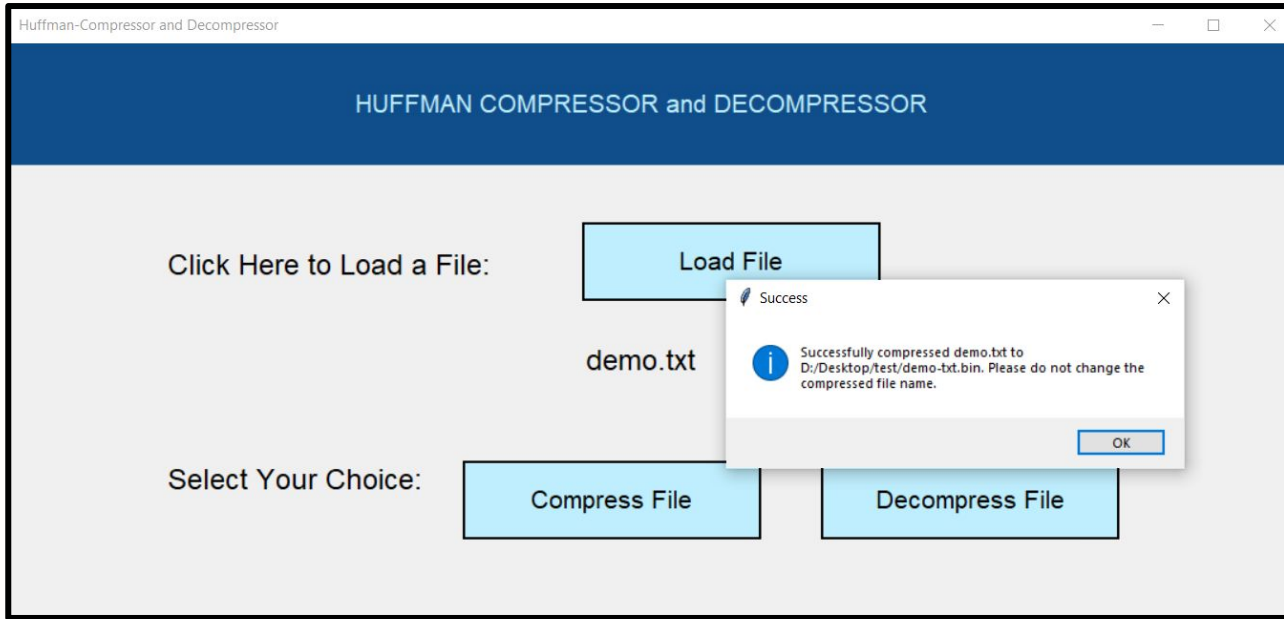
We know that our files are stored as binary code in a computer and each character of the file is assigned a binary character code and normally, these character codes are of fixed length for different characters.

For example, if we assign 'a' as 000 and 'b' as 001, the length of the codeword for both the characters are fixed i.e., both 'a' and 'b' are taking 3 bits.

# Snapshots







## HUFFMAN COMPRESSOR and DECOMPRESSOR

Click Here to Load a File:

Load File

demo-txt.bin

Select Your Choice:

Compress File

Decompress File

