## **Text Compression**

For this task we want you to write a program that can compress and decompress the datasheet.txt file. The program should use its own compression algorithm and it should also use the words.txt file for the compression and decompression.

The format of words.txt is (where  $\r \$  is carriage return and new line): word $\r \$ 

The program should have the following requirements:

- The words.txt file must be used by the compression algorithm.
- The compressed file should be smaller than the original file.
- It should be able to restore the compressed file to its original state.
- No external libraries can be used for the compression and decompression of the file.