**DSP Lab Assignment 3**

The coverts 8 bit representation of numbers to 7 bit and generates a compressed file.

To run the code follow the following steps:

1. Create a file ai.txt that should contain the input numbers. Each new number should be entered in a new line. This file has been included in the submission.
2. Run the code in the file a.c from the terminal using the command: gcc a.c –lm. Then type the following command: “./a.out” .
3. The code generates 3 files:
4. 8bit.txt : this file contains the 8 bit representation of the numbers.
5. 7bit.txt : this file contains the 7 bit representation of the numbers without the LSB.
6. Compressed.txt : this is the compressed file.

All these files have been included in the submission.

**Results Obtained:**

for a file of 37 bytes the compressed file size was 11 bytes. 8bit file size was 96 bytes and 7bit file size was 84 bytes.

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