Comparison Report

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CSC316

Project 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| File Name | Uncompressed file in bytes | Compressed file by reference utility | Fraction | Uncompressed by program | Compressed by Program | Fraction |
| Input1.txt | 60,213 | 25,845 | .43 | 59,157 | 49,112 | .83 |
| Input2.txt | 69,942 | 29,516 | .42 | 68,673 | 57,120 | .83 |
| Input3.txt | 99,949 | 41,249 | .41 | 98123 | 80483 | .82 |
| Input4.txt | 127,361 | 53,460 | .42 | 125090 | 103701 | .83 |
| Input5.txt | 122,776 | 50,632 | .41 | 120527 | 98264 | .82 |
| Input6.txt | 89,250 | 37,780 | .42 | 87698 | 72470 | .83 |
| Input7.txt | 156,817 | 65,376 | .42 | 154029 | 127077 | .83 |
| Input8.txt | 127,831 | 54,026 | .42 | 125488 | 104664 | .83 |
| Input9.txt | 185,225 | 76,883 | .42 | 181502 | 147380 | .81 |
| Input10.txt | 233,272 | 93,834 | .40 | 229301 | 187053 | .82 |
| Small.txt | 50 | 845 | 16.90 | 49 | 37 | .76 |
| Medium.txt | 239 | 925 | 3.87 | 233 | 171 | .73 |
| Large.txt | 8,166 | 4,454 | .55 | 8026 | 6942 | .86 |
|  |  |  |  |  |  |  |
| Average Input files: | 127263.60 | 52860.10 | .42 | 124958.80 | 102732.40 | .82 |
| Average Total: | 98545.46 | 41140.38 | 1.96 | 96761.23 | 79574.92 | .81 |

After doing this comparison report, it seems that the reference utility would compress the file and make it significantly smaller by making the file on average about 42% the size of the uncompressed file. While the program I created would compress the file and make it only 82% the size of the uncompressed file. Some things that I took notice of is that when the reference utility compressed small files it would make the file a lot larger than the uncompressed file. Another thing I noticed is that the my uncompressed files that my program generated was off from the uncompressed file given to us and the reason for that is because it did not account for /n as a byte.