Cheolhong Ahn

CMSC 203

Assignment 3

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**Lessons Learned**

In this assignment, we were required to write a program that encrypts and decrypts strings with accepted range and using bellaso and Caesar cypher. Through this exercise, I have learned ASCII tables and how to compare the strings to the ASCII values.

The problem I have encountered during this assignment was figuring out how to compare the each letter of string given to the ASCII values. In order to do so, I have converted given string to the arrays of char by declaring char array of the length of given string and inputting each letter into each index. Then I simply compared char to int or char to char which is simply possible with operators and did the appropriate procedure of add or subtracting. Then converted the arrays of char back into the string to return the string value.

Another problem I have encountered was getting wrong results in decryption process. This was caused by the ASCII value dropping below 0 after subtracting the key value. Even after adding to go above the Range, it caused error because there are no below 0 ASCII. I solved this issue with the algorithm of, if after subtracting the key from the char value the value is 0, don’t subtract first and add the range first until char value minus key value is above the range. This way, in any process of the method, no char value drops below 0.