Part One:

When you start the Caesar Cipher program you will be given three(3) choices in the main menu. For this part you can choose to use choice one(1) to encrypt your file or choice two(2) to decrypt your file. Please ignore choice three(3) until part three. If the user chooses menu option one(1) to encrypt a file then you will be asked for a value from 0-25 to be used as the cipher key. You then will be asked to type in a file name to be encrypted (for this default.txt will be used). Once a value and a file are chosen the program will read the text in the file, encrypt the text using the given key and then store it in a new file called encrypted\_text.txt. If the user chooses menu option two(2) to decrypt a file they will be asked for a value from 0-25 to be used as the key. Then they will be asked for a file name to decrypt (for this the file will be encrypted\_text.txt. Once the value and the file are chosen the program will read the file, decrypt the text using the key provided by the user and then store the plain text in a new file called decrypted\_text.txt.

Part Three:

For this part the user would choose option three(3) if they do not have a key to decrypt with. Once the user has chosen a file to decrypt (file will be encrypted\_text.txt) the program will decrypt the file using an array of keys and searching for unique keywords that come up after decrypting the text. Each time a keyword is located the text will be saved to the same file and spaced apart for later viewing(decrypted\_no\_key\_text.txt). Only decrypted text containing a keyword is saved so that the user does not have to go through every possible key used to decrypt the text.

Part Five:

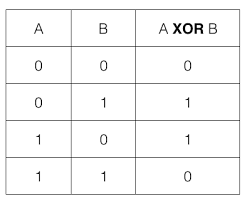
If plaintext/plainbits is = 0110 = 1010 = 1110

If key/keybits = 1001 or = 1100 or = 0101

\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

= 1111 = 0110 = 1011

If your plaintext is a zero(0) and your key is a one(1) then your result will be a one(1) or vise versa. Any time you have the same bits you will get a zero(0). View chart below.



Part Six(Branden): 50% contribution.

Part Six(Michael): I feel like I contributed 50% of the work for this assignment.