ISP “Encryption Instrument”

Caesar Cipher

1. The encryption technique I choose for my ISP is Caesar Cipher, also known as Caesar’s Cipher, the shift caesar. For this technique, each letter is replaced by the other letter. The order of replaced letter can be shift depending on the number of letters in the alphabet. For example, if the alphabet is shift 4 letters, a new alphabet is created.

Plain: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Cipher: WXYZABCDEFGHIJKLMNOPQRSTUV

Algorithm:

1. Create a textbox for user to enter text to decode or encode, two buttons to encrypt or decrypt, a label as an output of encrypted or decrypted text, a numeric up down to control the shift.
2. Create a function named CaesarCipher.
3. Following the formula: Ci= (Ti+k) (mod m) for encode

Ci= (Ti-k) (mod m) for decode

Ci : character of the closed text

Ti : character of the open text

k: shift

m: length of the alphabet

1. Determine the new alphabet by adding the shift
2. Define the decode by subtracting the length of the alphabet, which is 26. The case is divided into 2 possibilities: the upper case and lower case.
3. To decode, using the function created, yet, the numeric up down function is deactivated.
4. To encode, combining the function created, activate the numeric up down function.
5. The challenges are:

* Getting to understand the method I choose for this ISP is confusing at first. Then I have apply for my code, which has to correspondent to the input text.
* Using the Asc() function to return to the text is difficult to encounter with the formula. For example, to create the new alphabet based on the shift, I have to use Asc (). That means that for each letter in the text, I have to shift it depending on the shift selected by adding. Also, for the rest of each other letters, they have to come back to initial letter of the initial alphabet, I have to use the mod of the shift.
* Defining a new function for the encryption is also a new technique that I have learnt. Then the function is combined with the label and numeric up down to show the output.