Requirements.

The program shall encrypt a message using the Caesar Cipher algorithm, which shifts the letters input down the alphabet by 'x' amount (i.e. when input = age, with a shift of 2, output = cig).

The program shall print a hash string that shows the amount of each letter of the alphabet that was input (i.e. When input = D, hash = 0A0B0C1D etc.).

The program shall determine how it will shift the letters by their numerical position in the alphabet (A=1, B=2, etc.), and for each letter of the alphabet (A-Z) multiply them by how many there are, and their position number, then add the sums up (Example: input = abbc, Shift: 1*1 + 2*2 + 1*3, Shift = 8). Note that the max distance from one letter to another = 25, to aid this, the Professor gave the following formula: shift amount = (sum of letters – 1) % 25 + 1, which should make the shift number loop back around.

Functions.

Array, will hold each letter from A-Z and their respective positions.

Shift calculation, will calculate the shift of the users input and array positions.

Cipher, will likely print the encrypted message using the array, the output of the shift calculation.

Hash string, will likely print a string of letters and numbers corresponding to the array and the number of letters that were input.

Possible Challenges, and Considerations.

I will probably have struggle in properly coding the hash string and the shift calculation, as I don't readily see the actions I would need to take, I will likely also make some more algorithms than I originally anticipated.