CSCI 357 - Cryptography
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HW #2

For my encryption function, I start by iterating through the characters in the plaintext message. For each character, I get the ordinal value, and then use a conditional to check whether it is an uppercase or lowercase letter. Uppercase letters have ordinal values of 65-90, while lowercase letters are 97-122. If the ordinal does not fall in this range, then we don't shift it, since it's not a letter. To shift the letters, I first add the shift amount to the ordinal. But since we want to loop back to the beginning of the alphabet, I subtract the offset (65 for uppercase and 97 for lowercase), and then check the new value modulo 26, as there are 26 letters in the alphabet and this will give us our distance from 0/the letter a. Then, the offset is added back on, giving us the ordinal of the shifted character. I then append this to a string, and once the loop has finished, I return the string.

For the decryption function, the logic is the same, except the shift amount is subtracted rather than added.