Project Description

In mini-project 1, you are asked to implement a simple Vigenere Cipher. Your code should take two string parameters as input: plaintext/ciphertext; key. Your code should generate ciphertext/plaintext as output. Spaces in the plaintext should be removed. The plaintext/ciphertext should only contain letters, you do not need to check the validity of the input (that is, we assume that the input is always valid).

The algorithm for encryption is: EK(m) = m + K mod 26

The algorithm for decryption is: EK(m) = m - K mod 26

You can use any programming language.

Your input/output should be text strings, with both uppercase and lowercase letters. The same letter in upper and lower cases are treated as the same. That is, both "A" and "a" must be converted to "1" in your program. Your output could be all uppercase or all lowercase.

You can use the same code for both encryption and decryption (in this way, you need to take a third parameter to indicate encryption or decryption). You can also implement encryption and decryption in two different programs.