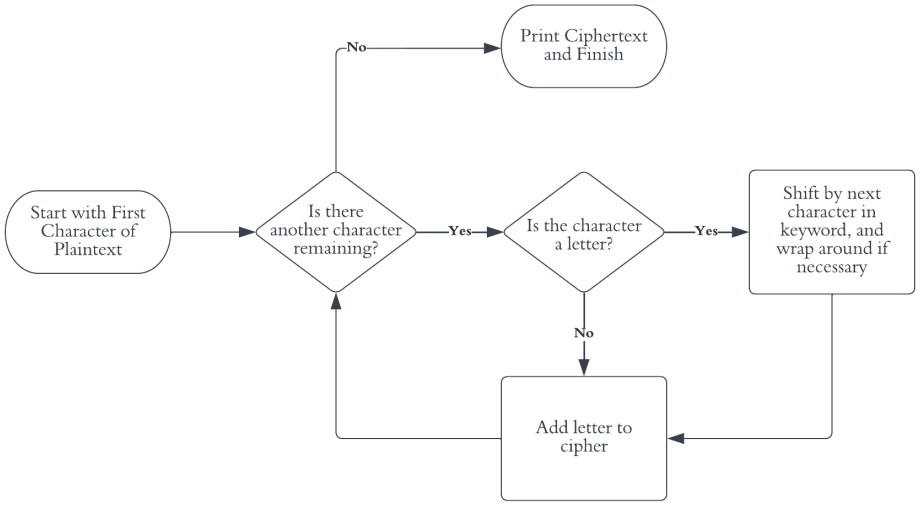
The Vigenère cipher is an encryption algorithm using a series of Caesar ciphers, the substitution shift left of which is dependent on a keyword. Given a message in plaintext, a 'keyword' is used to encrypt the message. The keyword is first repeated until it matches the length of the plaintext. Following this, each letter is shifted forward in the alphabet according to the value of the cipher (A = 0, B = 1, C = 2… Z = 25). Capital letters wrap around to remain capital, while lowercase letters wrap around to remain lowercase. If a character in the message is not a letter, it is added to the ciphertext unchanged. The general formula is as follows, where (P) represents the plaintext, (C) represents the ciphertext, and (K) represents the keyword.

$$C_i = (P_i + K_i) \bmod 26$$

$$P_i = (C_i - K_i + 26) \bmod 26$$

Below is the general flowchart for the algorithm for encrypting a Vigenère cipher.



Below is the general pseudocode for the algorithm for encrypting a Vigenère cipher.

```
for character in plaintext:
    if character is letter:
        shift character by next letter in keyword
    add character to ciphertext
print ciphertext
```