

## **Vigenère Cipher Encryption and Decryption Functions**

### **Encryption Function:**

The encrypt function is responsible for encrypting the message using the Vigenère cipher. It follows these steps:

- Reads the plaintext (the message to be encrypted) and the key from the user.
- Converts the plaintext and the key to uppercase letters (the Vigenère cipher operates only with uppercase letters).
- Initializes an empty string called ciphertext that will be used to store the encrypted message.
- Iterates through each character of the plaintext:
  1. Retrieves the ASCII code of the current character.
  2. Shifts the character code based on the corresponding character in the key.
  3. Adds the shifted character to the ciphertext string.
  4. Prints the ciphertext.

### **Decryption Function:**

The decryption function is responsible for decrypting the message using the Vigenère cipher. It follows these steps:

- Reads the ciphertext (the encrypted message) and the key from the user.
- Converts the ciphertext and the key to uppercase letters (the Vigenère cipher operates only with uppercase letters).
- Initializes an empty string called plaintext that will be used to store the decrypted message.
- Iterates through each character of the ciphertext:
  1. Retrieves the ASCII code of the current character.
  2. Shifts the character code based on the corresponding character in the key.
  3. Adds the shifted character to the plaintext string.
  4. Prints the plaintext.

Finally, the script asks the user whether they want to encrypt or decrypt, and it calls the appropriate function depending on the user's choice.