

## About the Program

This project implements a text encryption and decryption system using a character offset technique in x86 assembly language.

The code shifts each character in the input text by a specified number of positions in the alphabet, supporting both uppercase and lowercase letters while ensuring correct wrapping around the alphabet.

The system allows for the encryption and decryption of text, preserving letter case and ensuring that characters at the end of the alphabet wrap back to the beginning.

## Example:

To encrypt the text "Hello World" using a character offset technique, let's assume a shift of 3 positions (a common Caesar cipher approach). Here's how the encryption would work:

**Original text:** Hello World

**Shift:** 3

Each letter in "Hello World" is shifted by 3 positions in the alphabet:

- H → K
- E → H
- L → O
- L → O
- O → R
- (space remains unchanged)
- W → Z
- O → R
- R → U
- L → O
- D → G

**Encrypted text:** Khoor Zurog

