Caesar Cipher Program

This is a simple Python program that implements the Caesar Cipher, a basic encryption and decryption technique where letters in a message are shifted by a fixed number of positions in the alphabet.

Features

- **Encrypt Text**: Shift letters forward by a specified number of positions.
- **Decrypt Text**: Reverse the shift to recover the original text.
- Retains non-alphabetic characters (e.g., spaces, punctuation) in the original positions.

How It Works

The Caesar Cipher replaces each letter in the input text with another letter a fixed number of positions away in the alphabet. For example, with a shift of 3:

- `A` becomes `D`
- `B` becomes `E`
- `Z` becomes `C` (wraps around)

For decryption, the shift is reversed.

Usage Instructions

1. Clone or download this repository to your local machine.

Run the program with Python:
bash
Copy code
`python caesar_cipher.py`

2.
3. Follow the prompts:
    - Choose the mode: `encrypt` or `decrypt`.
    - Enter the text to process.
    - Enter the shift value (an integer).

Example

Encrypt:

yaml
Copy code

```
Choose mode (encrypt/decrypt): encrypt
Enter the text: Attack at dawn!
Enter the shift value: 5
Result: Fyyfhp fy ifbs!
```

Decrypt:

yaml
Copy code

```
Choose mode (encrypt/decrypt): decrypt
Enter the text: Fyyfhp fy ifbs!
Enter the shift value: 5
Result: Attack at dawn!
```

Requirements

- Python 3.6 or higher

Code Structure

- `caesar_cipher(text, shift, mode='encrypt')`: Function to encrypt or decrypt the input text.
- Main program: Handles user input and displays the result.

Error Handling

- Ensures the shift value is a valid integer.
- Prevents invalid inputs by prompting the user again.

License

This project is open-source and available under the MIT License.

Author

[Your Name]