

Implement Caesar Cipher task-1.py

```
1 # Caesar Cipher - Encrypt and Decrypt
2 def encrypt(text, shift):
3     encrypted_text = ""
4     for char in text:
5         if char.isalpha():
6             # Shift uppercase and lowercase letters separately
7             offset = 65 if char.isupper() else 97
8             encrypted_text += chr((ord(char) - offset + shift) % 26 + offset)
9         else:
10            encrypted_text += char # Keep other characters unchanged
11    return encrypted_text
12
13
14 def decrypt(text, shift):
15     return encrypt(text, -shift)
16
17
18 def main():
19     print("== Caesar Cipher Program ==")
20     choice = input("Do you want to Encrypt or Decrypt? (E/D): ").strip().upper()
21
22     if choice not in ['E', 'D']:
23         print("Invalid choice. Please enter 'E' or 'D'.")
24         return
25
26     message = input("Enter your message: ")
27
28     try:
29         shift = int(input("Enter shift value (e.g., 3): "))
30     except ValueError:
31         print("Invalid shift value. Please enter a number.")
32         return
33
34     if choice == 'E':
35         encrypted_message = encrypt(message, shift)
36         print("Encrypted Message:", encrypted_message)
37     else:
38         decrypted_message = decrypt(message, shift)
39         print("Decrypted Message:", decrypted_message)
40
41
42 if __name__ == "__main__":
43     main()
```