

Implement Caesar Cipher task-1.py

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