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TrackCode:CS

Task3:Implement Caesar Cipher

```
1 def caesar_cipher_encrypt(text, shift):
2     encrypted_text = ""
3     for char in text:
4         if char.isalpha(): # Check if character is a letter
5             shifted = ord(char) + shift
6             if char.islower():
7                 if shifted > ord('z'):
8                     shifted -= 26
9                 elif shifted < ord('a'):
10                    shifted += 26
11            elif char.isupper():
12                if shifted > ord('Z'):
13                    shifted -= 26
14                elif shifted < ord('A'):
15                    shifted += 26
16            encrypted_text += chr(shifted)
17        else:
18            encrypted_text += char
19    return encrypted_text
20
21 def caesar_cipher_decrypt(encrypted_text, shift):
22     return caesar_cipher_encrypt(encrypted_text, -shift)
23
24 # Example usage:
25 if __name__ == "__main__":
26     plaintext = "Hello, World!"
27     shift = 3
28
29     encrypted_text = caesar_cipher_encrypt(plaintext, shift)
30     decrypted_text = caesar_cipher_decrypt(encrypted_text, shift)
31
32     print("Original:", plaintext)
33     print("Encrypted:", encrypted_text)
34     print("Decrypted:", decrypted_text)
35
```

```
➦ Original: Hello, World!
  Encrypted: Khoor, Zruog!
  Decrypted: Hello, World!
```