# 7/20/24, 6:58 PM task4.ipynb - Colab

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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():

1. if shifted > ord('z'):
2. shifted -= 26
3. elif shifted < ord('a'): 10 shifted += 26 11 elif char.isupper():
4. if shifted > ord('Z'):
5. shifted -= 26
6. elif shifted < ord('A'):
7. shifted += 26
8. encrypted\_text += chr(shifted) 17 else:
9. encrypted\_text += char
10. return encrypted\_text

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1. def caesar\_cipher\_decrypt(encrypted\_text, shift):
2. return caesar\_cipher\_encrypt(encrypted\_text, -shift)

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1. # Example usage:
2. if \_\_name\_\_ == "\_\_main\_\_":
3. plaintext = "Hello, World!"
4. shift = 3

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1. encrypted\_text = caesar\_cipher\_encrypt(plaintext, shift)
2. decrypted\_text = caesar\_cipher\_decrypt(encrypted\_text, shift) 31
3. print("Original:", plaintext)
4. print("Encrypted:", encrypted\_text)
5. print("Decrypted:", decrypted\_text)

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Original: Hello, World!

Encrypted: Khoor, Zruog!

Decrypted: Hello, World!

# https://colab.research.google.com/drive/1Wq19KW4SCRfr5lZZbY8ttcBBpK7uF-UI#scrollTo=PxI1zq7LR7ty 1/1