**Data Structures and Algorithms (CMPE 201)**

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**Course:** Diploma in Computer Engineering Technology

**Section:** DCpET 2-2

**Program:** Caesar Cipher

**Description:** Creating a Python script that uses a Caesar Cipher encryption and decryption method, it shifts each letter in a message by a predetermined number of positions to protect your private information.

**Source Code**:

en = 1

dn = 2

quit = 3

def main():

menu\_display()

choice = 0

while choice != quit:

choice = int(input("\n Enter Your Choice: "))

if choice == en:

encryption()

elif choice == dn:

decryption()

elif choice == quit:

print("Exiting the program", "\n")

else:

print("Error: Invalid selection", "\n")

def encryption():

user\_text = input("Enter the text to be encrypted: ")

shift\_value = 3

result = caesar\_cipher(user\_text, shift\_value, "encrypt")

print("Encrypted text:", result, "\n")

def decryption():

user\_text = input("Enter the text to be decrypted: ")

shift\_value = -3

result = caesar\_cipher(user\_text, shift\_value, "decrypt")

print("Decrypted text:", result, "\n")

def caesar\_cipher(text, shift, operation):

result = ""

for char in text:

if char.isalpha():

is\_upper = char.isupper()

shifted\_char = chr((ord(char) + shift - ord('A' if is\_upper else 'a')) % 26 + ord('A' if is\_upper else 'a'))

result += shifted\_char

else:

result += char

return result

def menu\_display():

print("\*\*\*CAESAR CIPHER\*\*\*")

print("Please choose what you want to do.")

print("1.) Encryption")

print("2.) Decryption")

print("3.) Quit")

main()

**Screenshot:**



