Task No – 1

Q. Create a program that can encrypt and decrypt text using caesar cihper algo. Allow user to input a message and a shift value to perform encryption and decryption.

Code :-

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

result = ""

for char in text:

if char.isalpha():

shift\_base = 65 if char.isupper() else 97

result += chr((ord(char) - shift\_base + shift) % 26 + shift\_base)

else:

result += char

return result

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

return caesar\_cipher\_encrypt(text, -shift)

def main():

print("Caesar Cipher Program")

while True:

print("\nOptions:")

print("1. Encrypt a message")

print("2. Decrypt a message")

print("3. Exit")

choice = input("Enter your choice (1/2/3): ")

if choice == "1":

message = input("Enter the message to encrypt: ")

shift = int(input("Enter the shift value: "))

encrypted\_message = caesar\_cipher\_encrypt(message, shift)

print("Encrypted message:", encrypted\_message)

elif choice == "2":

message = input("Enter the message to decrypt: ")

shift = int(input("Enter the shift value: "))

decrypted\_message = caesar\_cipher\_decrypt(message, shift)

print("Decrypted message:", decrypted\_message)

elif choice == "3":

print("Exiting the program. Goodbye!")

break

else:

print("Invalid choice. Please try again.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

