

# GSET - Programming with Mr. Hill - Summer 2024

## Repetition - Tutorial 7 - The Caesar Cipher

### Overview:

We are going to write a Python program to encrypt and decrypt a secret message.

### System Requirements:

- **Computer:** A computer is required to complete this tutorial. Any OS should work.
- **Python:** You can use an online Python compiler ([Trinket Python3](#)) or a Python compiler of your choice.

### Problem Statement:

#### Mode 1: Encryption

- Given: A readable secret message to encrypt with the Caesar Cipher and the cipher key
- Find: The encrypted message

#### Mode 2: Decryption

- Given: An encrypted secret message to decrypt with the Caesar Cipher and the cipher key
- Find: The decrypted message in a readable format

### Program Minimum Requirements:

The program should accomplish the following tasks.

#### Mode 1: Encryption

- The readable message should be stored as an array of characters.
- Your program should print the readable message to the screen in character format.
- Your program should encrypt the message using the Caesar Cipher (shift each letter in alphabet by the key)
- Your program should print the encrypted message to the screen.

#### Mode 2: Decryption

- The encrypted message name should be stored as an array of characters.
- Your program should print the encrypted message to the screen in character format.
- Your program should decrypt the message using the Caesar Cipher (shift each letter back in alphabet by the key)
- Your program should print the decrypted message to the screen.

**Part 3 - Testing:**

1. Complete the C++ code to solve the problem described.
2. Test your code with different inputs. Is the answer correct? How do you know? Are there certain inputs that do not work?
3. Save your code with the download button or use copy and paste. You can view and edit the code in any text editor. Also, save a copy of the program output for your tutorial summary.

**Solution Code:**

**Tutorial Summary:**

Write a brief summary of what you accomplished and what you struggled with the most.

Include the following items in the summary:

- a copy of the output of your program
- a description of what the program does and how to use it