

## Tugas Praktikum Pertemuan 2

Nama : - Nur Anisa Fitri (20123063)

- Fia Nurfadilla (20123052)

### 1. Hasil Perbandingan Caesar Cipher pada Python dan Cryptool

#### ● Caesar Cipher Python

```
[3]
✓ Os
def caesar_encrypt(text, shift):
    result = ''
    for char in text:
        if char.isalpha():
            base = ord('A') if char.isupper() else ord('a')
            result += chr((ord(char) - base + shift) % 26 + base)
        else:
            result += char
    return result
print(caesar_encrypt('HELLO', 3))

KHOOR
```

#### ● Caesar Cipher Cryptool

The screenshot shows the Cryptool-Online web application interface. The header is green with the logo and text 'Cryptool-Online Cryptography for everybody'. The main content area is titled 'Caesar / ROT13' and includes a 'Readme' button. Below the title, there is a 'Plaintext' input field containing 'HELLO' and a 'Ciphertext' output field containing 'KHOOR'. A large downward arrow indicates the encryption process. On the right side, there are settings for the cipher: 'Options' (dropdown), 'Key' (set to 3), and 'Alphabet' (set to 'ABCDEFGHIJKLMNOPQRSTUVWXYZ'). There are also checkboxes for 'Freestyle', 'Uppercase' (checked), 'Lowercase', 'Digits', 'Punctuation marks', 'Umlauts', and 'Blanks'. At the bottom right, there is a message: 'Activate Windows Go to Settings to activate Windows.'


## 2. Hasil Perbandingan Vigenere Cipher pada Python dan Cryptool


- Vigenere Cipher Python

```
[6]
✓ Os
def vigenere_encrypt(plain, key):
    key = key.upper()
    result = ''
    for i, char in enumerate(plain.upper()):
        if char.isalpha():
            shift = ord(key[i % len(key)]) - 65
            result += chr((ord(char) - 65 + shift) % 26 + 65)
        else:
            result += char
    return result
print(vigenere_encrypt('ATTACKATDAWN', 'LEMON'))
```

LXFOPVEFRNHR

- Vigenere Cipher Cryptool

CrypTool-Online  
Cryptography for everybody

 **Vigenère and variants**  
First strong polyalphabetic cipher that inspired many other ciphers

[Readme](#)

**Plaintext** 12 chars

ATTACKATDAWN

➔

**Ciphertext** 12 chars

LXFOPVEFRNHR

**Key**

LEMON

Text Copy Reset

Activate Windows  
Go to Settings to activate Windows.

