LAPORAN PRAKTIKUM

SISTEM KEAMANAN DATA

# PRAKTIKUM IV

**VIGENERE CIPHER**



## Disusun oleh :

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## Dosen

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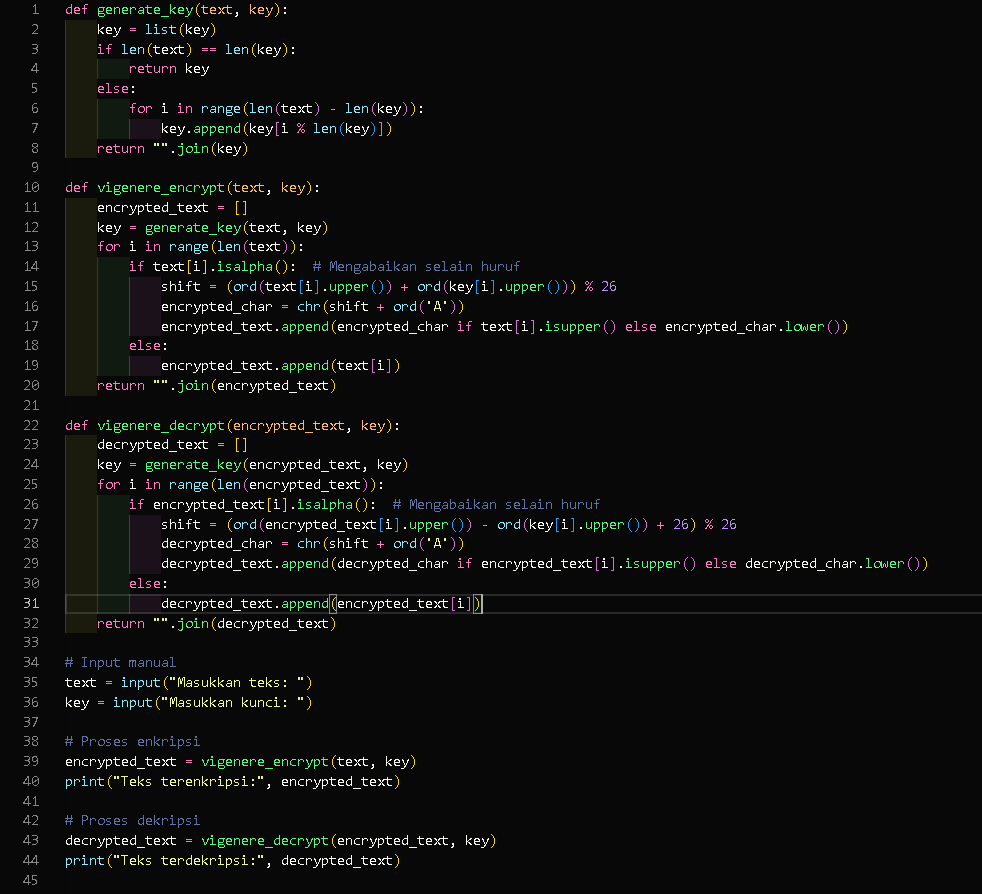
# PS D-III TEKNIK INFORMATIKA SEKOLAH VOKASI UNIVERSITAS SEBELAS MARET 2024

## Hasil Dan Pembahasan

## 

## Coding

1. def generate\_key(text, key):
2. key = list(key)
3. if len(text) == len(key):
4. return key
5. else:
6. for i in range(len(text) - len(key)):
7. key.append(key[i % len(key)])
8. return "".join(key)
9. def vigenere\_encrypt(text, key):
10. encrypted\_text = []
11. key = generate\_key(text, key)
12. for i in range(len(text)):
13. if text[i].isalpha():  # Mengabaikan selain huruf
14. shift = (ord(text[i].upper()) + ord(key[i].upper())) % 26
15. encrypted\_char = chr(shift + ord('A'))
16. encrypted\_text.append(encrypted\_char if text[i].isupper() else encrypted\_char.lower())
17. else:
18. encrypted\_text.append(text[i])
19. return "".join(encrypted\_text)
20. def vigenere\_decrypt(encrypted\_text, key):
21. decrypted\_text = []
22. key = generate\_key(encrypted\_text, key)
23. for i in range(len(encrypted\_text)):
24. if encrypted\_text[i].isalpha():  # Mengabaikan selain huruf
25. shift = (ord(encrypted\_text[i].upper()) - ord(key[i].upper()) + 26) % 26
26. decrypted\_char = chr(shift + ord('A'))
27. decrypted\_text.append(decrypted\_char if encrypted\_text[i].isupper() else decrypted\_char.lower())
28. else:
29. decrypted\_text.append(encrypted\_text[i])
30. return "".join(decrypted\_text)
31. # Input manual
32. text = input("Masukkan teks: ")
33. key = input("Masukkan kunci: ")
34. # Proses enkripsi
35. encrypted\_text = vigenere\_encrypt(text, key)
36. print("Teks terenkripsi:", encrypted\_text)
37. # Proses dekripsi
38. decrypted\_text = vigenere\_decrypt(encrypted\_text, key)
39. print("Teks terdekripsi:", decrypted\_text)



**C. Hasil**

