EXPERIMENT 1D

Cryptographics Program

Aim:

To conduct an experiment to encrypt and decrypt given sensitive data.

Algorithm:

1. Import the Fernet class from the cryptography.fernet module.

2. Generate a secret encryption key using Fernet.generate\_key().

3. Display the generated encryption key.

4. Create a Fernet object using the generated key.

5. Define the original data to be encrypted.

6. Encrypt the original data using the encrypt() method.

7. Display the encrypted data.

8. Decrypt the encrypted data using the decrypt() method and display the decrypted result.

Program:

from cryptography.fernet import Fernet

key = Fernet.generate\_key()

print("Encryption Key:", key.decode())

fernet = Fernet(key)

original\_data = "MySecretPassword123"

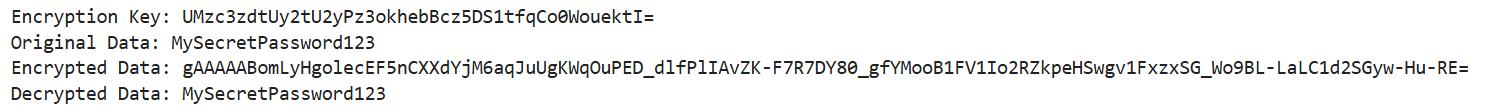
print("Original Data:", original\_data)

encrypted\_data = fernet.encrypt(original\_data.encode())

print("Encrypted Data:", encrypted\_data.decode())

decrypted\_data = fernet.decrypt(encrypted\_data).decode()

print("Decrypted Data:", decrypted\_data)

Output:

Result:

Hence a program to encrypt and decrypt the given data is written and executed successfully.