5/19/22, 2:46 PM ICS_DES

```
!pip install PyCryptodome
In [1]:
        Requirement already satisfied: PyCryptodome in c:\users\vishal tanaw
        ade\appdata\local\programs\python\python310\lib\site-packages (3.14.
        1)
        WARNING: You are using pip version 22.0.4; however, version 22.1 is
        available.
        You should consider upgrading via the 'C:\Users\Vishal Tanawade\AppD
        ata\Local\Programs\Python\Python310\python.exe -m pip install --upgr
        ade pip' command.
       from Crypto.Cipher import DES
In [2]:
        from secrets import token_bytes
        key = token bytes(8)
In [3]:
In [4]: def encrypt(msg):
             """In cryptography, a nonce ( number once) is an arbitrary number
             can be used just once in a cryptographic communicationIn cryptogr
             sometimes known as a tag, is a short piece of information used to
             cipher = DES.new(key, DES.MODE EAX)
            nonce = cipher.nonce
             ciphertext,tag = cipher.encrypt and digest(msg.encode('ascii'))
             return nonce,ciphertext,tag
In [5]: def decrypt(nonce,ciphertext,tag):
             cipher = DES.new(key,DES.MODE EAX,nonce=nonce)
            plaintext = cipher.decrypt(ciphertext)
            try:
                 cipher.verify(tag)
                 return plaintext.decode('ascii')
            except:
                 return False
In [6]:
        nonce,ciphertext,tag = encrypt(input("Enter a message: "))
        plaintext = decrypt(nonce, ciphertext, tag)
        print(f'Cipher text: {ciphertext}')
        if not plaintext:
            print("Message is corrupted!!!")
        else:
            print(f'Plain text: {plaintext}')
        Enter a message: Vishal Tanawade
        Cipher text: b"W\x89\xec}K\xc8'\xf6\xeeR\xac.\xd7B,"
        Plain text: Vishal Tanawade
In [ ]:
```