



Sri Lanka Institute of Information Technology

Introduction to Cyber Security - IE2022

Lab Submission 07

IT22151056

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Group – WD.CS 01.02

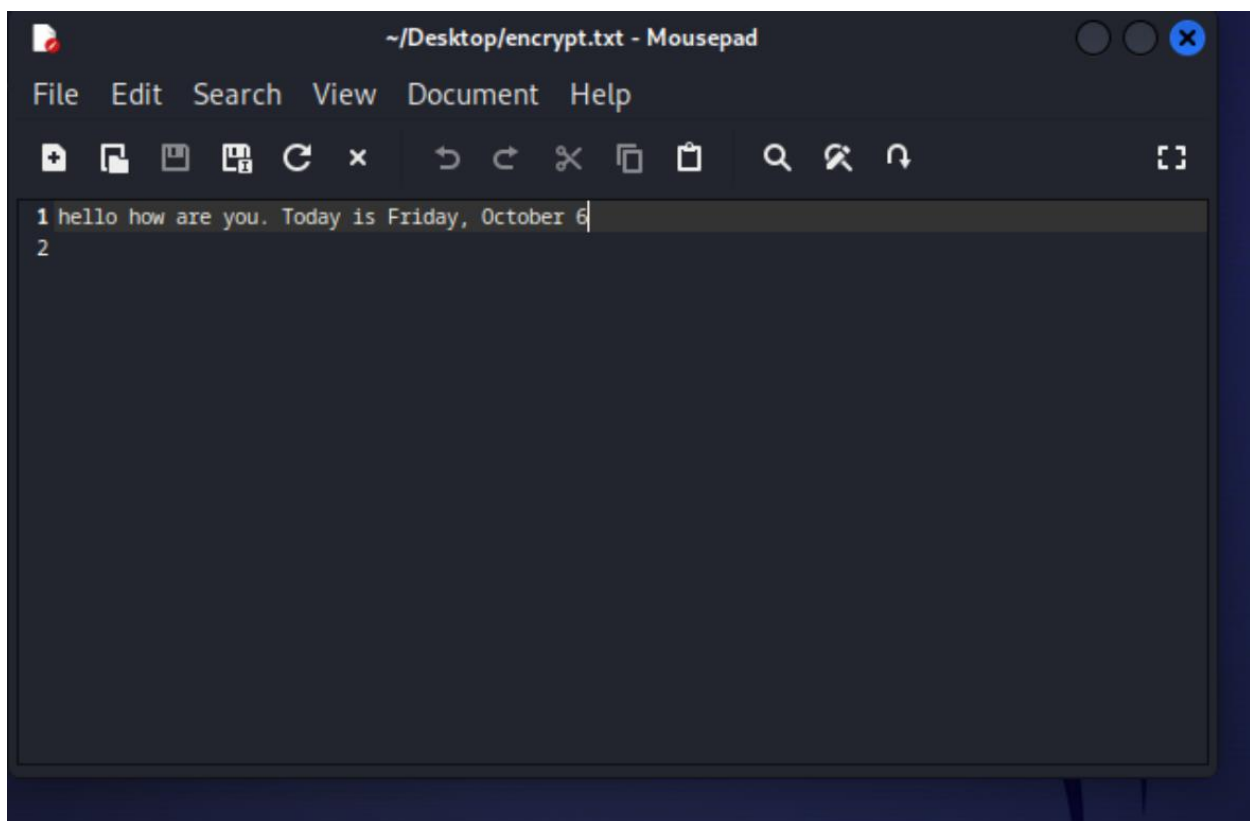
Task 01

encryption and Decryption using different ciphers and modes

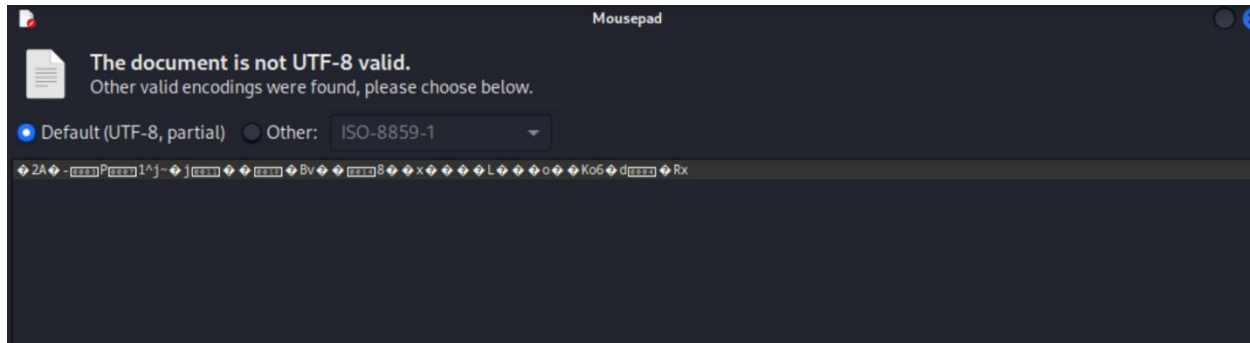
1. Encrypt using cbc mode.

```
(rush@kali)-[~]  
$ openssl enc -aes-128-cbc -e -in Desktop/encrypt.txt -out Desktop/decrypt.tx  
t -K 00112233445566778899AABBCCDDEEFF -iv 010203040506070809A0B0C0D0E0F011  
  
(rush@kali)-[~]  
$
```

Plaintext file



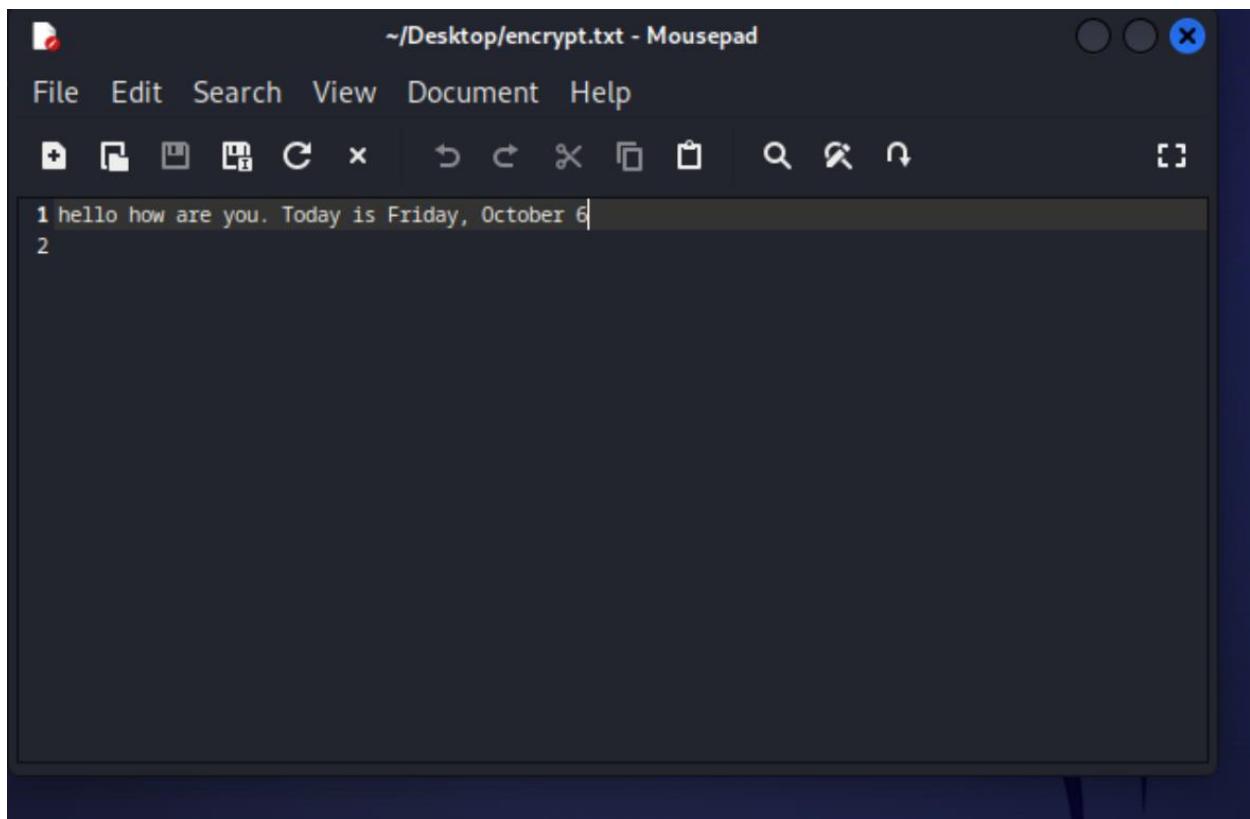
Decrypted file



2. Encrypt using CFB mode

```
(rush@kali)-[~]  
$ openssl enc -aes-128-cfb -e -in Desktop/encrypt.txt -out Desktop/decrypt.txt -K 00112233445566778899AABBCCDDEEFF -iv 10122568304567890ABCDEF1200F8AB0
```

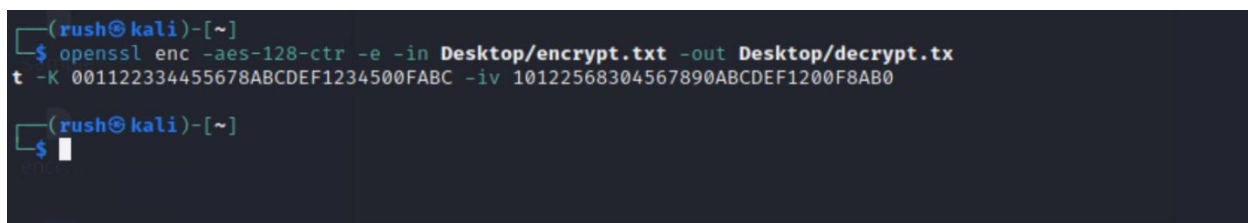
Plaintext file



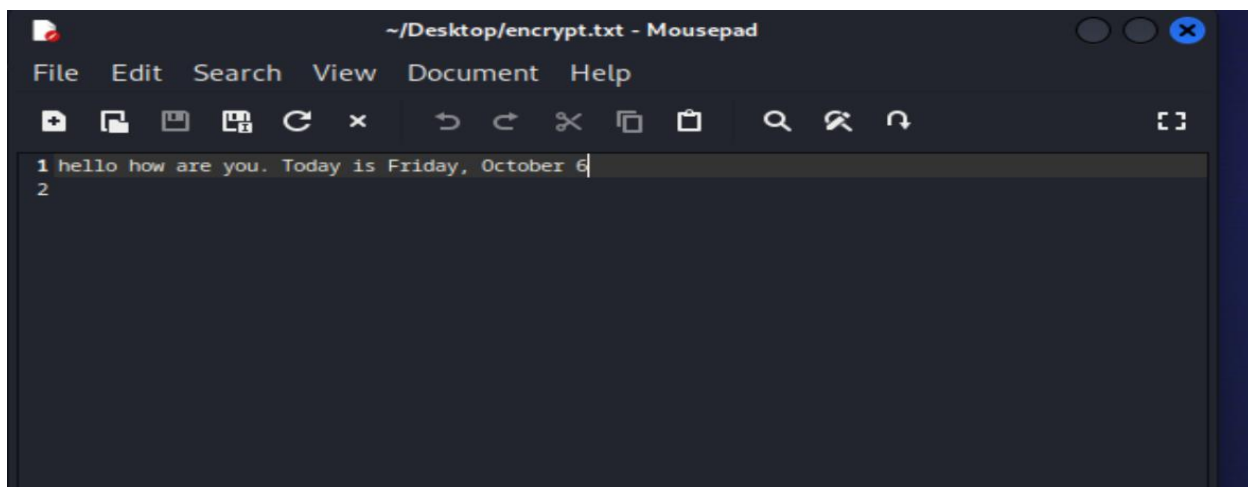
Encrypted File



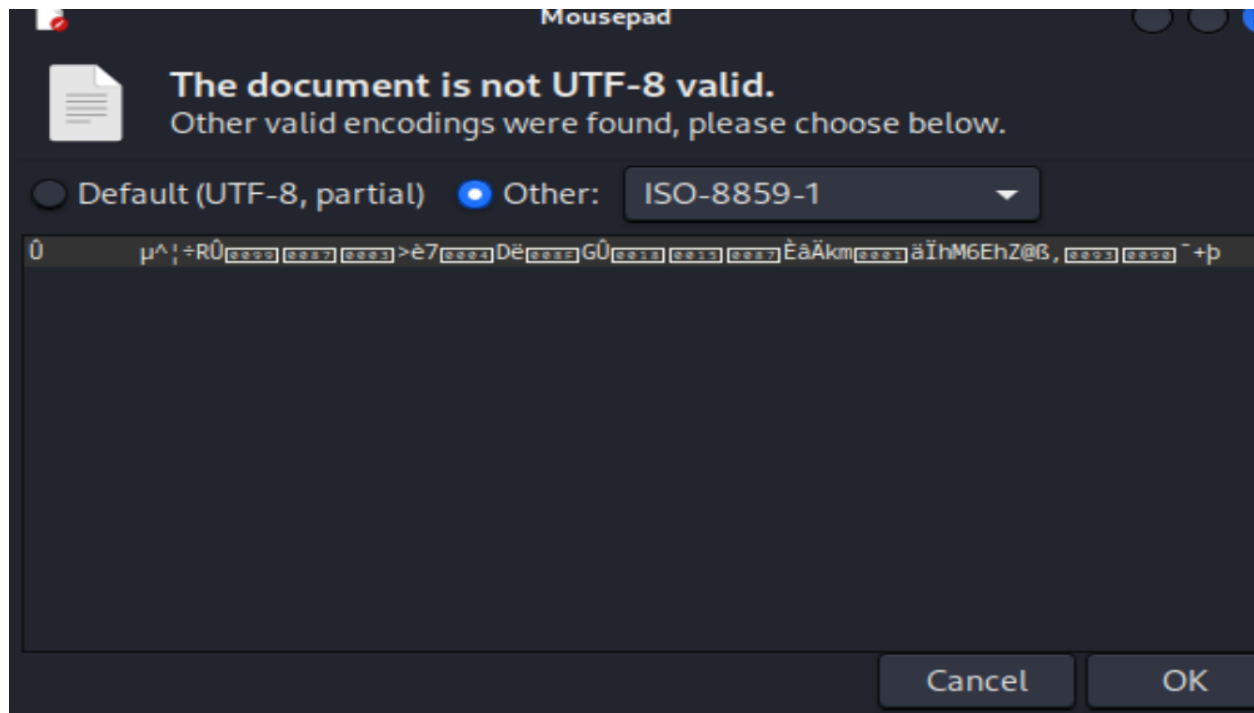
3.Encrypted Using CTR mode



Plaintext file



Encrypted File



Here, when different modes are used, even if the same key and iv value are used, different decryption values are obtained.