Lab Assignment

Cybersecurity Professional Program

Network Security

Practical Cryptography

NS-05-L3

Encryption Games

Lab Objective

Practice identifying ciphertext and learn about methods to decrypt the ciphertext back to human-readable format (plain text).

Lab Mission

Practice encryption and decryption techniques.

Lab Duration

45–60 minutes

Requirements

- Basic knowledge of encryption methods.

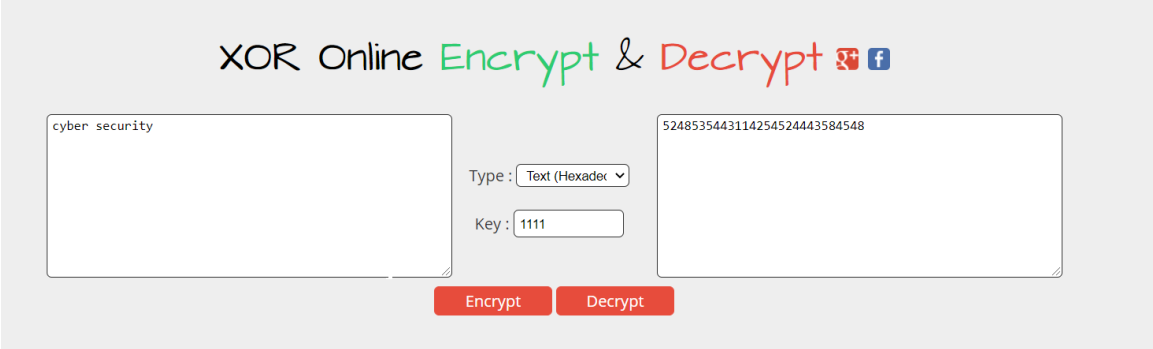
Resources

- Environment & Tools
    - Web browser

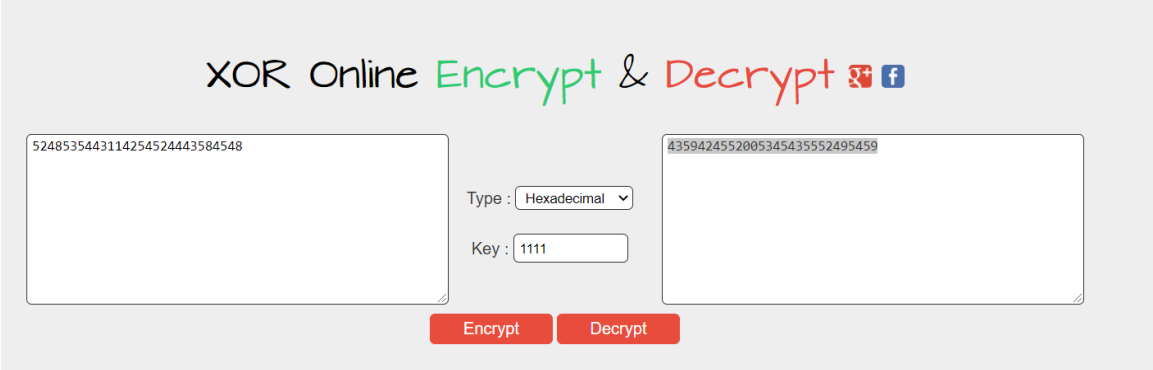
Lab Task

Using various online tools linked in the tasks below, practice encrypting plain text and decrypting the ciphertext.

1. Encrypt a message using an XOR cipher with the **Key** set to **1111** and encode it to hexadecimal by setting the **Type** to ***Text (hexadecimal output)***. Then give it to another learner.
   Use the following website for this task: ***https://md5decrypt.net/en/Xor/***

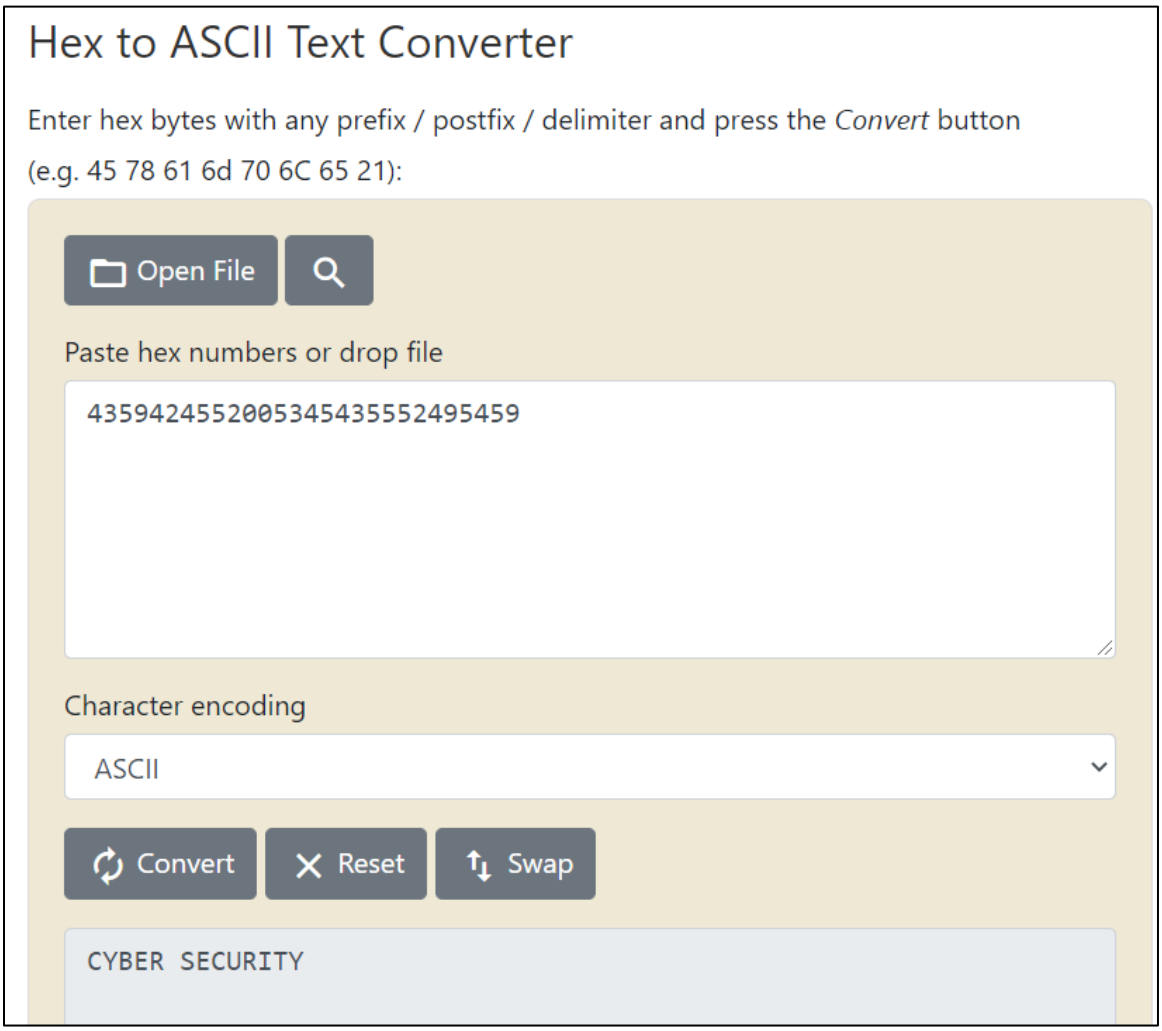


2. Decrypt the cipher you received in step 1 from another learner, using the XOR cipher, hexadecimal type, and the same key at the same URL from step 1.

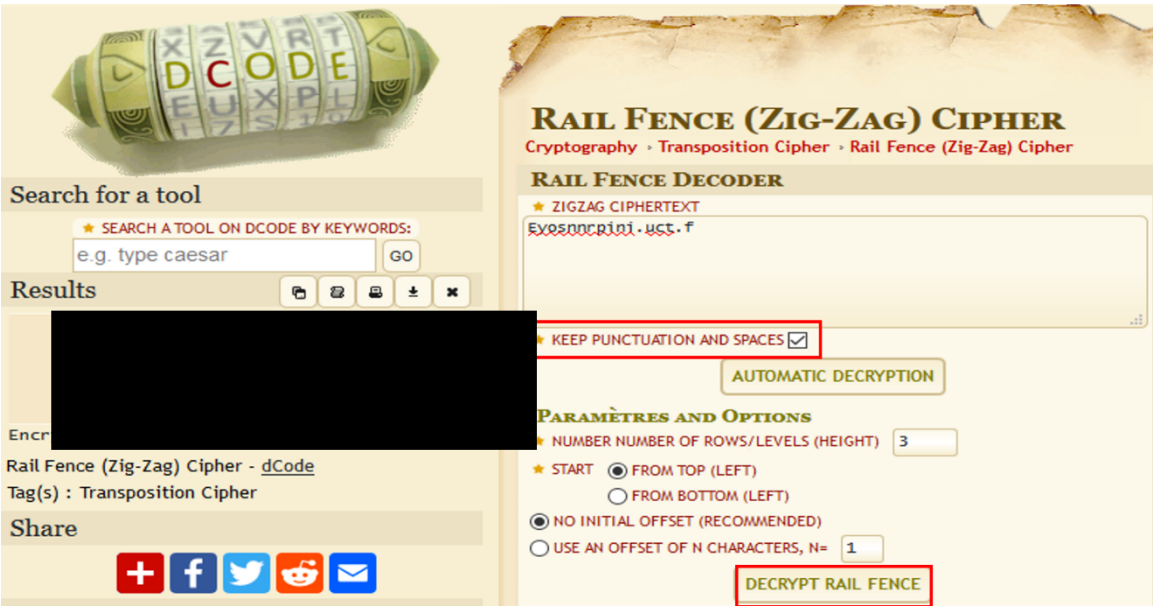


3 Encode the result in step 2 from Hex to ASCII using the following website: ***https://www.rapidtables.com/convert/number/hex-to-ascii.html***

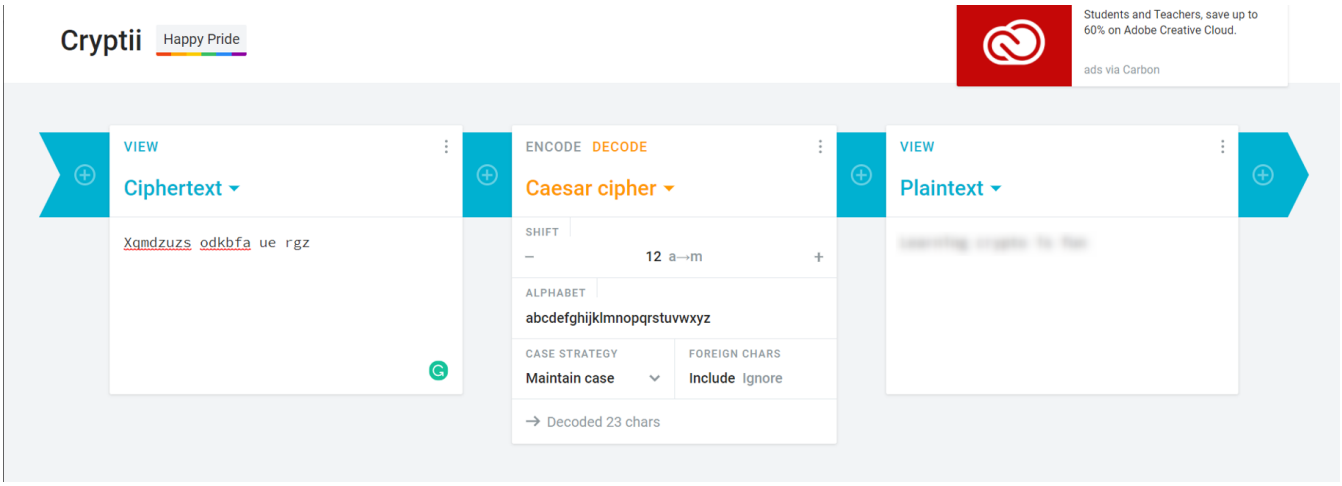
Click **Convert** after inserting the required information.



4 Decrypt the message **Eyosnnrpini.uct.f** using a Zigzag cipher at the following URL: ***https://www.dcode.fr/rail-fence-cipher***



5 Decrypt the message **Xqmdzuzs odkbfa ue rgz** using a Caesar cipher at the following URL: ***https://cryptii.com/pipes/caesar-cipher***



6 Decrypt **Tvir zr zber punyyratrf** using a ROT13 cipher at the following URL: ***https://rot13.com/***