



recruitmentCTF

2024-25

CHALLENGE NAME: [Crypto
Maniac]

DEV: [Riya Shah]

CATEGORY: [Cryptography]

LEVEL: [EASY]



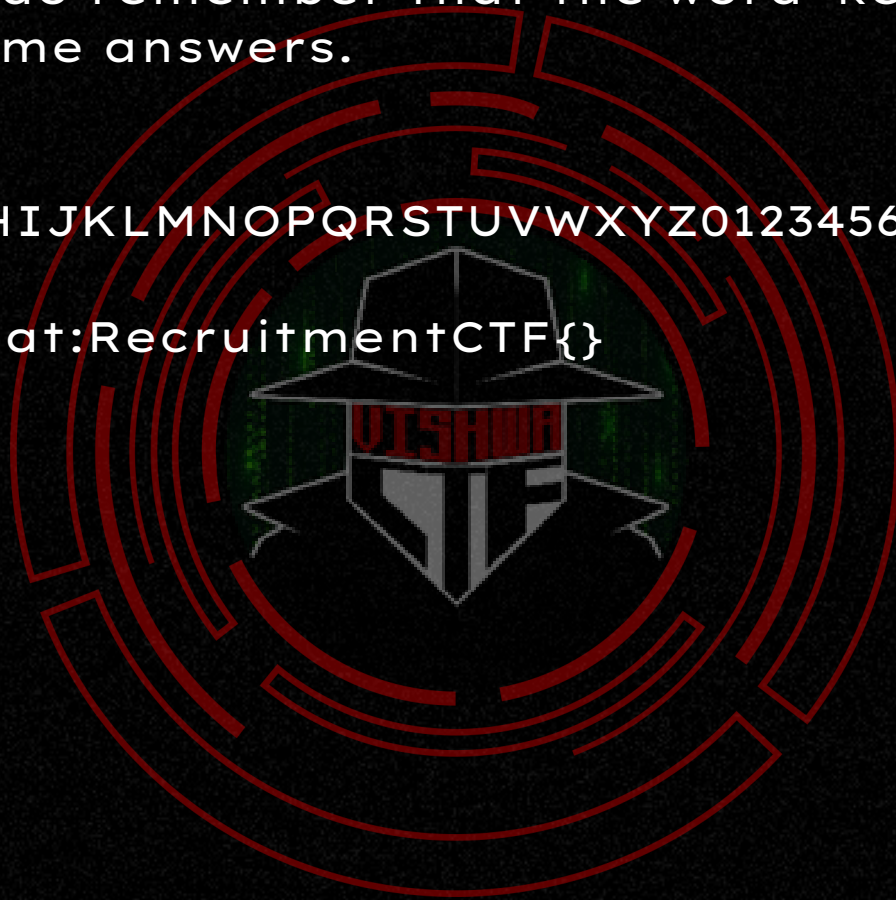
Challenge Description:

Mr Robert Reed and Mr Joe Reed, twins born on 3rd January 1990, saved their shared bank credentials in a password protected file to avoid any mischief in case of thefts. Turns out they forgot the password. They left certain clues to recover the password in such cases in the files giovan_key.txt and pass.txt interlinked. Help them recover the credentials. Also they do remember that the word 'key' might lead to some answers.

Alphabet:

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

Flag Format: RecruitmentCTF{}



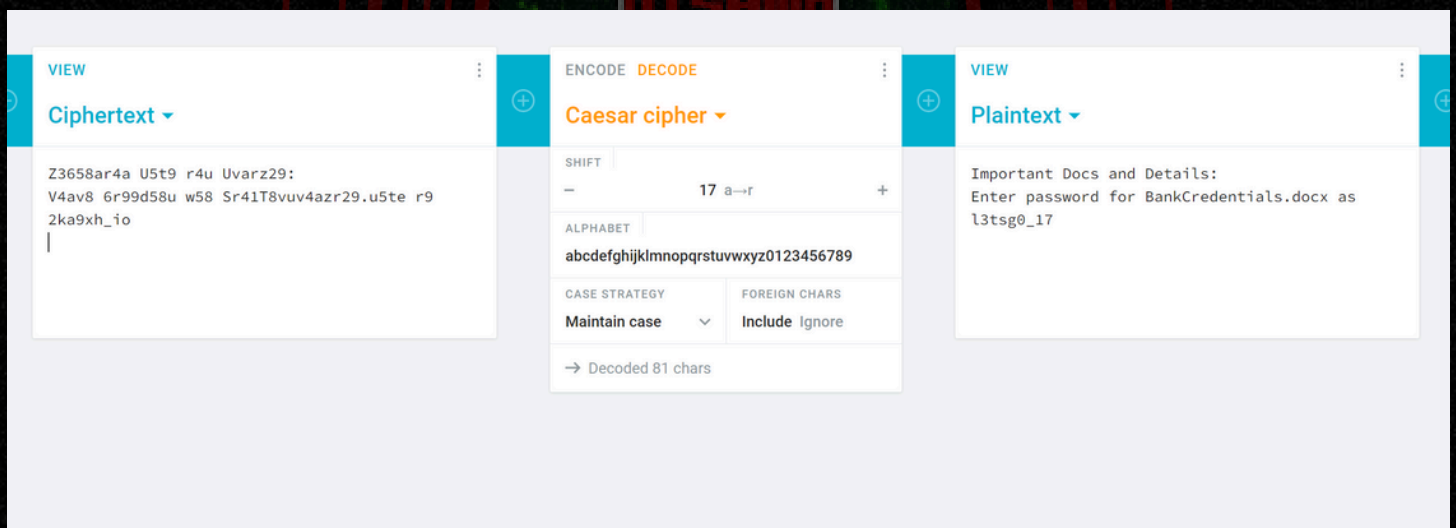
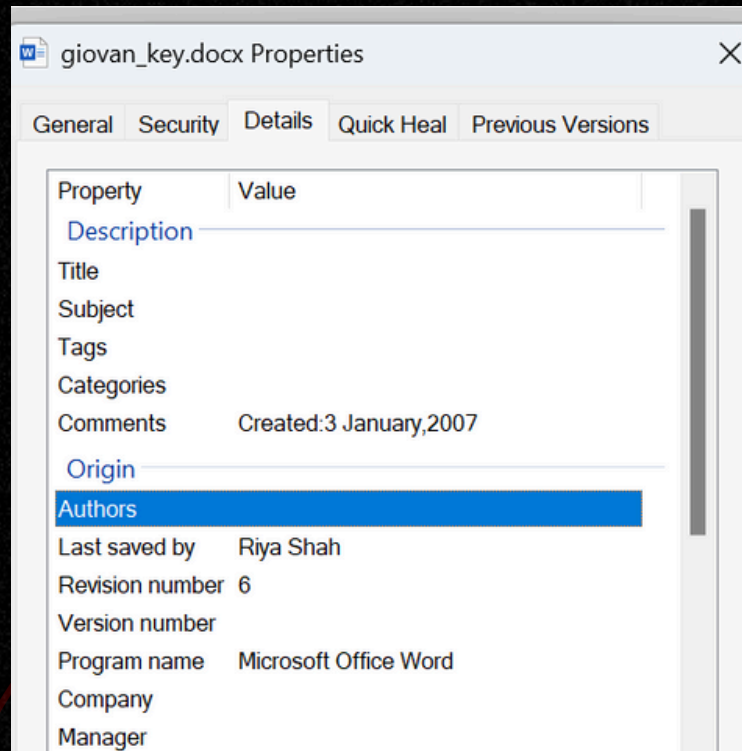
WRITEUP:

1) As the file name `giovan_key.docx` suggests, the file contains texts encrypted using the Vigenere Cipher (Giovan Battista Bellaso had invented it), the key used is 'key' (hint provided in the question).

The screenshot shows a web-based Vigenere cipher decoder. The interface is divided into three main sections: Ciphertext, Encoder/Decoder settings, and Plaintext.

- Ciphertext:** Contains the text: `3l2 zeg2.hcm1 i2ig me22ef mmdrif,6ly3 ezyyh 3l2 uim/2l6px hrsiql? hri e4ig3mcx h23e6vw ask53 l2vt`
- Encoder/Decoder:** Set to 'Vigenere cipher'. The 'KEY' field is empty. The 'KEY MODE' is set to 'Repeat'. The 'ALPHABET' is set to 'abcdefghijklmnopqrstuvwxyz0123456789'. The 'CASE STRATEGY' is set to 'Maintain case'. The 'FOREIGN CHARS' are set to 'Include Ignore'. A status bar at the bottom indicates 'Decoded 98 chars'.
- Plaintext:** Contains the decoded text: `the pass.docx uses caesar cipher, what about the key/shift though? the question details might help`

2) The decoded texts says that the file `pass.docx` uses Caesar Cipher. The Shift/key for the Cipher turns out to be the age of the twins at the time when the file was created, which was on 3rd Jan 2007 (check metadata of `Giovan_key.docx`), so the shift is 17.



3) On encrypting the text in pass.docx we get the password for BankCredentials.docx, which gives us the flag.

Flag:RecruitmentCTF{cry9t0_ex910r4ti0n}

