Project 2
CTF

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Summary

Challenges

1. Cryptography - Unrecognized hash (Easy)
2. Cryptography - Secret message (Easy)
3. Steganography - Cats (Hard)

CTF 1 - Description

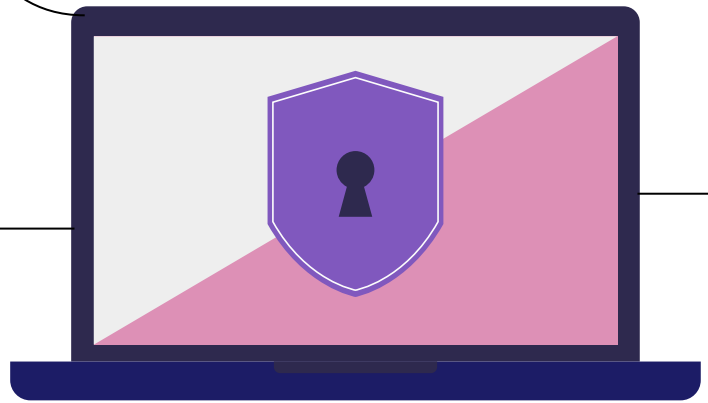
INSTRUCTIONS

You are given a hash, but its format seem unknown. Find the corresponding uncracked password.

Documents

Zip containing :

-unknownhash.txt
-readme.txt
-challengevalidation.zip

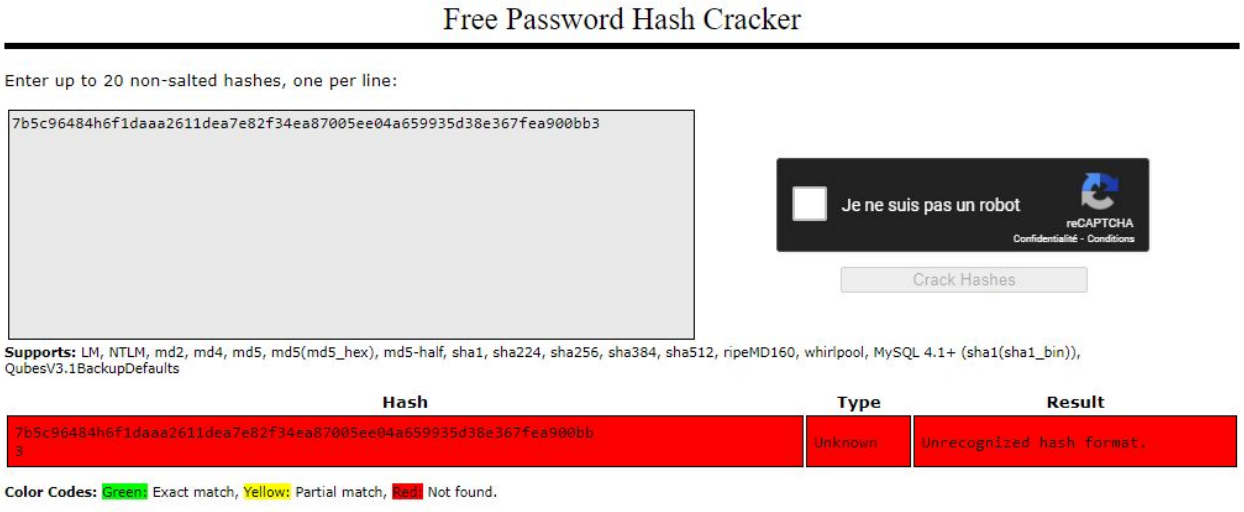


HOW TO VALIDATE ?

Return the MD5 hash of the password

CTF 1 - Resolution

```
kali@kali:~/Documents/CTF/crypto$ cat unknownhash.txt
7b5c96484h6f1daaa2611dea7e82f34ea87005ee04a659935d38e367fea900bb3
```



Check the length of the hash !

Known hash functions

CTF 1 - Resolution

```
kali@kali:~/Documents/CTF/crypto$ cat unknownhash.txt
7b5c96484h6f1daaa2611dea7e82f34ea87005ee04a659935d38e367fea900bb3
```

→ 65 digits

CTF 2 - Description

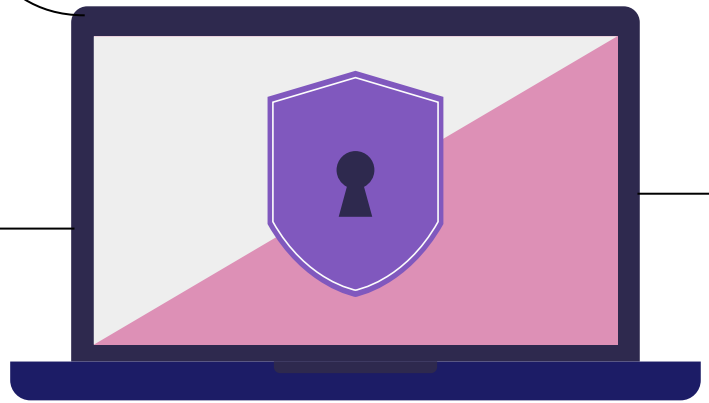
INSTRUCTIONS

You need to decipher the secret message to move on to the next challenge !

Documents

Zip containing :

-secretmessage.txt
-readme.txt



HOW TO VALIDATE ?

Open the file of the CTF 3

CTF 2 - Resolution

```
kali@kali:~/Documents/CTF/crypto2$ cat secretmessage.txt
Kle qqbk ghdxpvrgh rmci iv ur kle vmqv dis rmci av flzw ckmpcinjq.
Wysw wti ymdgqr wmlhe eeh yrg azpl iuru mt.
Wti qmp smwjaoup mj xhh fcgi oi qrtvysfmfr uvqh wsr wtmj ghdxpvrgh.
```

```
kali@kali:~/Documents/CTF/crypto2$ cat readme.txt
Solve this challenge to access the next one. Should be easy when you find the key. It is right in front of your eyes ...
```

→ Vigenère cipher

CTF 2 - Resolution - Vigenère cipher

- Key and alphabet
- Add up the key to the clear text
- Can also use a table
- Powerful online tools (dcode.fr)

A	B	C	D	E	F	G	H	I	J	K	L	M
↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
0	1	2	3	4	5	6	7	8	9	10	11	12

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
13	14	15	16	17	18	19	20	21	22	23	24	25

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
B	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A
C	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B
D	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C
E	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D
F	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E
G	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F
H	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G
I	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H
J	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I
K	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J
L	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K
M	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L
N	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M
O	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N
P	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Q	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
R	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
S	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
T	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
U	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
V	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
W	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
X	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Y	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Z	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y

CTF 2 - Resolution

Vigenere 🔑 README

(Alphabet (26) ABCDEFGHIJKLMNOPQRSTUVWXYZ)

The next challenge file is in the same zip file as this challenge.
Show the hidden files and you will find it.
The zip password is the type of encryption used for this challenge.

```
kali@kali:~/Documents/CTF/crypto2$ cat message.txt
The next challenge file is in the same zip file as this challenge.
Show the hidden files and you will find it.
The zip password is the type of encryption used for this challenge.
```

```
kali@kali:~/Documents/CTF/crypto2$ ls -a
.  ..  message.txt  .nextchallenge.zip  readme.txt  secretmessage.txt
```

Password of the zip = Vigenere

CTF 3 - Description

INSTRUCTIONS

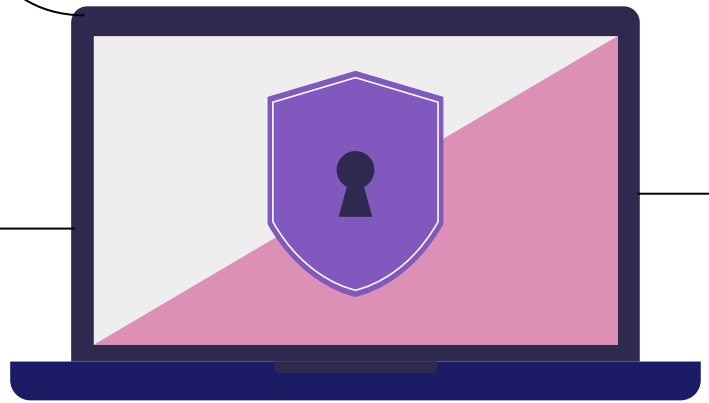
You are given a basic pdf file and you need to find hidden information.

Documents

You need to solve CTF 2 to get these.

Zip containing :

-ElfCat.pdf
-readme.txt



HOW TO VALIDATE ?

Find the flag

(format “flag {...}”)

CTF 3 - Resolution

Thank you for your attention