PicoCTF: Cryptography Complete Walkthrough

Mod 26

Description: -
Cryptography can be easy, do you know what ROT13 is?
`cvpbPGS{arkg_gvzr_V'yy_gel_2_ebhaqf_bs_ebg13_GYpXOHqX}`
Points: 10

Hint:-

This can be solved online if you don't want to do it by hand!

The Walkthrough: -

ROT13 consists in swapping the letters of the message we want to cipher with the 13th letter (which is the cipher key) of the alphabet after the considered letter. For example, if we take the letter A and count 13 after it we will end up on letter P. And going on, for a message ABC to encrypt we will obtain the cipher PQR. We could also choose another key and swap the letter consequentially.

The challenge gives us a cipher message in red, which is the message we are supposed to decipher. Given that all PicoCTF solutions starts with *picoCTF* we already know that these letters are mapped to **cvpbPGS**. Knowing these we can map the others.

Here is a simple Python script to obtain the solution.

```python
alfabeth_lower = "abcdefghijklmnopqrstuvwxyzabcdefghijklmnopqrstuvwxyz"

alfabeth_upper = "ABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZ"

cipher = "cvpbPGS{arkg_gvzr_V'yy_gel_2_ebhaqf_bs_ebg13_nSkgmDJE}"

message = ""

for letter in cipher:

    if letter in alfabeth_lower:

        message += alfabeth_lower[alfabeth_lower.index(letter)+13]

    elif letter in alfabeth_upper:

        message += alfabeth_upper[alfabeth_upper.index(letter)+13]

    else:

        message += letter

print(message)
```

But if you want solve online then you can use **ROT13 decoder (**https://rot13.com/)
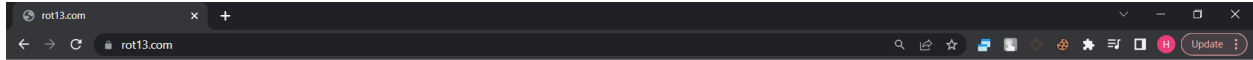
rot13.com
[About ROT13](#)

```
cvpbPGS{arkg_gvzr_V'yy_gel_2_ebhaqf_bs_ebg13_GYpXOHqX}
```

↓

ROT13 ▾

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```
picoCTF{next_time_I'll_try_2_rounds_of_rot13_TLcKBUdK}
```

Flag: **picoCTF{next_time_I'll_try_2_rounds_of_rot13_TLcKBUdK}**