

TSA Cybersecurity Mock Competition

Cryptography

frenchman

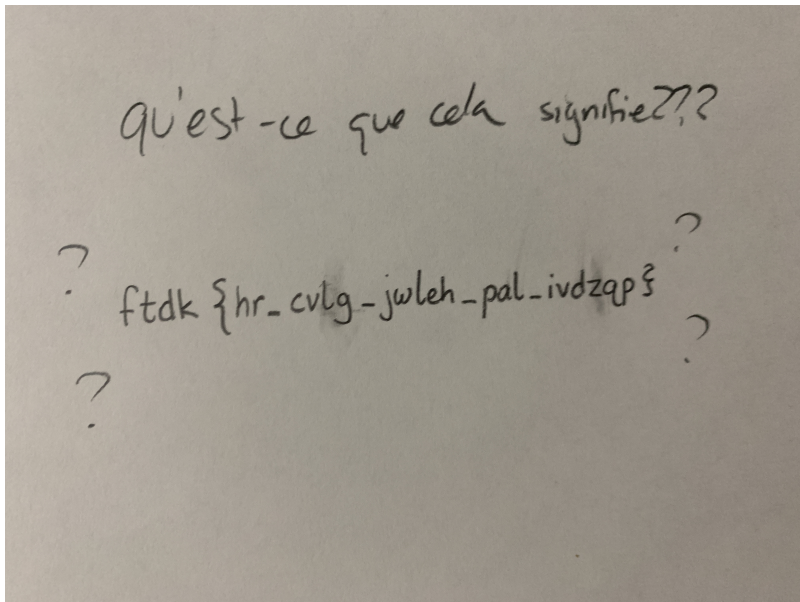
Hey, so uhhh... this French dude came into the building and was screaming something?

I think they said:

aidezmoi! Ils m'ont laissé dans un lycée américain!

I'm not sure; I don't speak French.

Anyway, they seemed stressed about this sheet of paper. Any idea?



The answer is of the format `flag{answer}`.

Hint: I think the dude was mentioning something about "le chiffage indéchiffrable"?
Something about a V guy??

xor i'll do it

I thought `^` meant exponentiation D:
How am I supposed to get the flag?

Flag ^ K1 ^ K2 ^ K3 ^ K4 = 02a6dfe98ae7dcbf96cf951b39488228c94297fb12c46096d8

K1 ^ K3 = e572345388e5dee89dd8c62be6326fe0a2360e29853fbd01d6

K2 ^ K3 = 352c61c7afe6400d5e5fb1cb0f331e5eb93aee14889371a8f6

K3 ^ K4 = b494eb1ad6832735272f87a4a82681e1b7221b992e51940b85

The answer is of the format `flag{answer}`.

i've got nothing here's some rsa

I don't have a funny quip to say here. I was gonna put like some super simple calculus but I also realize that not everyone has taken calculus yet... so...

Have fun!

```
p = 172264247183169894489153119451334259897
q = 214570086054419925362447458720950927091
e = 65537

c = 1821723370200066645588366051142376454249231561365317783558173520514583559350
```

What is the decoded value `m`?

Forensics

extensions

This is a really weird text file `IXI`? Can you find the flag?

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: How do operating systems know what kind of file it is? (It's not just the ending!)

Glory of the Garden

This `garden` contains more than it seems.

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: What is a hex editor?

like1000

This [.tar file](#) got tarred a lot.

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: Try and script this, it'll save you a lot of time

What Lies Within

There's something in the [building](#). Can you retrieve the flag?

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: There is data encoded somewhere... there might be an online decoder.

WhitePages

I stopped using YellowPages and moved onto WhitePages... but [the page they gave me](#) is all blank!

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Reverse Engineering

Cupid Shuffle

wwwiiiiieee`~~~~`hhhhaaaa[[[ooo____dddkkkkkkkkkhhhh[[[rrreeeee^^^hhhh]]]ccc

o! I'm having so much fun!

```
import java.util.*;

public class CupidShuffle {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String input = scanner.next();

        input = toTheRight(input);
        input = toTheRight(input);
        input = toTheRight(input);
        input = toTheRight(input);
        input = toTheLeft(input);
        input = toTheLeft(input);
        input = toTheLeft(input);
        input = toTheLeft(input);
        input = kick(input);
        input = kick(input);
    }
}
```

```

        input = kick(input);
        input = kick(input);
        input = walkItByYourself(input);
        input = walkItByYourself(input);
        letMeSeeYouDo(input);
    }

    public static String toTheLeft(String input) {
        int len = input.length();
        return input.substring(len - 1, len) + input.substring(0, len - 1);
    }

    public static String toTheRight(String input) {
        return input.substring(1, input.length()) + input.substring(0, 1);
    }

    public static String kick(String input) {
        String result = "";
        for (int i = 0; i < input.length(); i++) {
            char nc = (char) (input.charAt(i) - 1);
            result += nc;
        }

        return result;
    }

    public static String walkItByYourself(String input) {
        String result = "";
        for (int i = 0; i < input.length(); i++) {
            result += input.charAt(i);
            result += input.charAt(i);
        }
        return result;
    }

    public static void letMeSeeYouDo(String input) {
        System.out.println(input);
    }
}

```

The answer is of the format `flag{answer}`.

vault-door-4

This vault uses ASCII encoding for the password. The source code for this vault is here:

[VaultDoor4.java](#)

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Also, the vault doors before this one were boring.

Hint: You will also need to know the difference between octal, decimal, and hexadecimal numbers.

hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh. People need to stop typing one-liner Python code.

What does this code even do?

```
['_'.join(sorted(chr(ord(c)-1))[0] for c in list(reversed(flag))).replace("_",
""), 40)
```

Who doesn't love cookies? Try to figure out the best one. <http://mercury.picoctf.net:6418/>

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

There is a website running at <https://jupiter.challenges.picoctf.org/problem/33850/> (link) or <http://jupiter.challenges.picoctf.org:33850>. Do you think you can log us in? Try to see if you can login!

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: There doesn't seem to be many ways to interact with this. I wonder if the users are kept in a database?

Hint: Try to think about how the website verifies your login.

JaWT Scratchpad

Check the admin scratchpad! <https://jupiter.challenges.picoctf.org/problem/63090/> or <http://jupiter.challenges.picoctf.org:63090>

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: What is that cookie?

Hint: Have you heard of JWT?

where are the robots

Can you find the robots? <https://jupiter.challenges.picoctf.org/problem/36474/> ([link](#)) or <http://jupiter.challenges.picoctf.org:36474>

This question is from picoCTF. PicoCTF flags are of the format: `picoCTF{answer}`.

Hint: What part of the website could tell you where the creator doesn't want you to look?