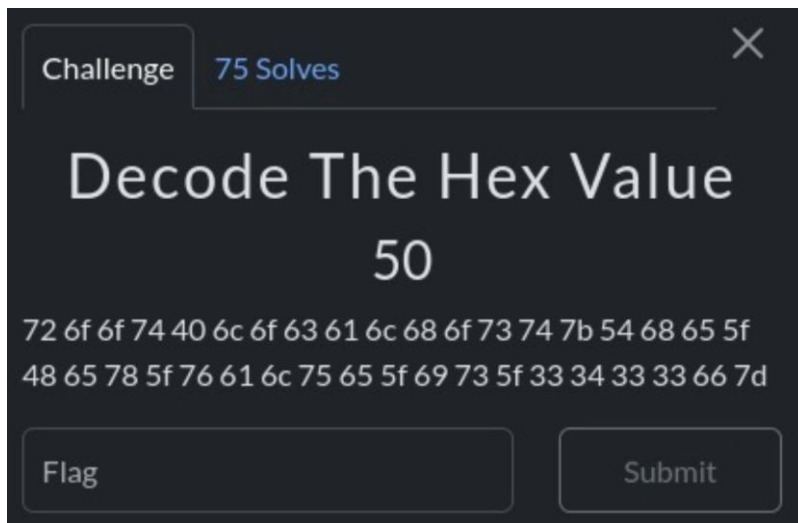


# CRYPTO

## 1. Decode the Hex Value



- Decode the hexa value to ascii text string  
Get the flag : `root@localhost{The_Hex_value_is_3433f}`

## 2. DH-9000



- Download the python file
- Using brute force algorithm for decoding

```
GNU nano 8.2 encrypt1.py.save
def discrete_logarithm(base, result, mod):
    # Brute force search for the discrete logarithm
    for x in range(mod):
        if pow(base, x, mod) == result:
            return x
    return None

# Given values
p = 8089
g = 823
A = 7608
B = 5796

# Find private keys
a = discrete_logarithm(g, A, p)
b = discrete_logarithm(g, B, p)

# Compute the shared secret
shared_secret = pow(B, a, p) # or pow(A, b, p)

# Format the result
print(f"root@localhost{{{shared_secret}}}")
```

- run brute force algorithm for decoding the flag

Flag : root@localhost{2293}

### 3. Route 47

Challenge

61 Solves

✕

## Route 47

82

In a world where money was a mess, Sarah stumbled upon Route 47—a top-secret crypto highway to a new world of wealth. With nothing but a mysterious code.

Code : C@@Eo=@42=9@DEL \*@F08@E0E9607=280FD:?  
80C@Ecfn

0/10 attempts

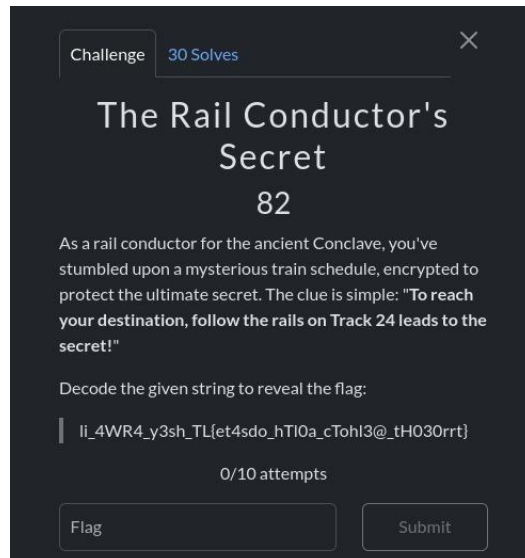
- Copy the code and paste in cyberchef website

- Decode it using ROT47 operation , flag retrieved.

Flag displayed :

root@localhost{You\_got\_the\_flag\_using\_rot47}

## 4. The Rail Conductor's Secret



- Copy the code and paste in cyberchef website
- Decode using rail fence cyber decode

Flag displayed :

r00t@localhost{Th3\_R4il\_W4ys\_Le4d\_T0\_Th3\_H3rt}

## 5. Byte Buster

