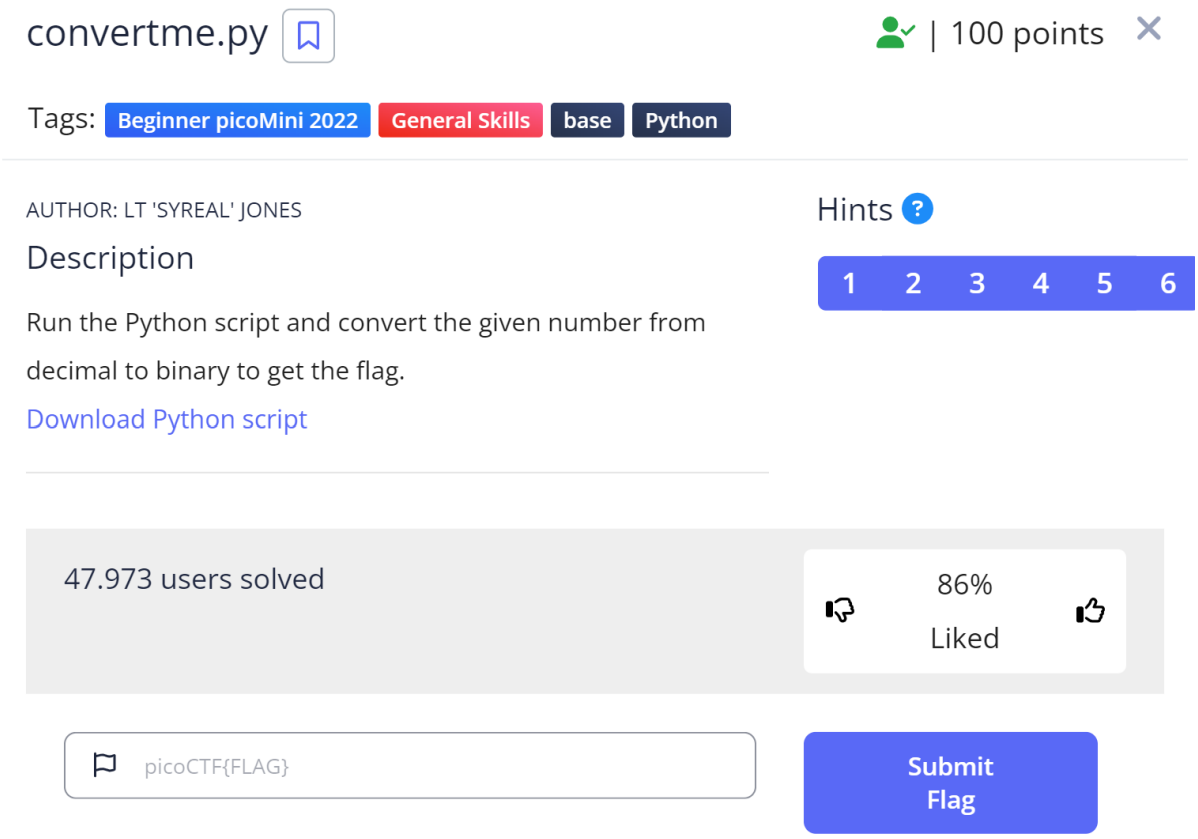
This writeup is for the picoCTF challenge convertme.py

The challenge gives you 100 points

As you can see, we are provided a python script, and it tells us to convert the given number from decimal to binary to get the flag.



I found 2 ways of doing this. The first one is probably the intended solution, but I used the second one. The second one is faster but not the intended solution.

1. Solution

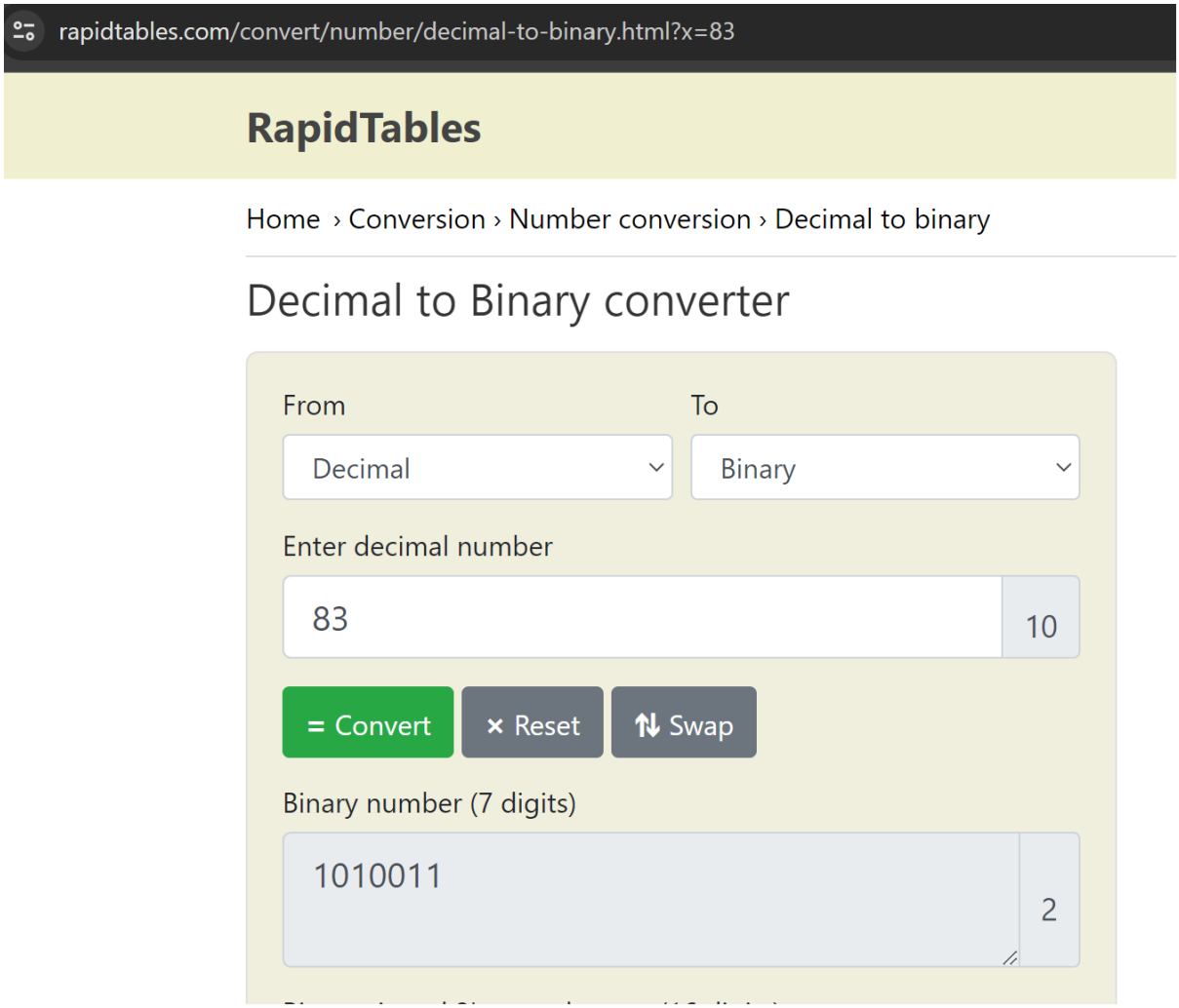
Make sure you're in the same directory as the file. If you just downloaded it, it's probably in "Downloads". If you're not in that directory, then just use the command "cd Downloads"

Run the script in your terminal by using the command "python3 convertme.py", and it should give you a number.

```
root@LAPTOP-B22FTJC2:/mnt/c/Users/Bruger/Downloads# python3 convertme.py
If 83 is in decimal base, what is it in binary base?
Answer:
```

I got the number 83, and now all you have to do, is put the number into a decimal to binary base converter.

I used RapidTables to do it.



Just put the decimal number in the box that says ”Enter decimal number” and hit convert. Then just copy the binary number and paste it into the answer in the terminal and hit enter

(I got the number 30 this time)

```
If 30 is in decimal base, what is it in binary base?
Answer: 11110
That is correct! Here's your flag: picoCTF{4ll_y0ur_b4535_9c3b7d4d}
```

And there is the flag: picoCTF {4ll_y0ur_b4535_9c3b7d4d}

2. Solution (faster)

I started out by opening up the script to see what it does. Instead of showing the entire script, here is the part I figured I could change in my favor.

```
try:
  ans_num = int(ans, base=2)

  if ans_num == num:
    flag = str_xor(flag_enc, 'enkidu')
    print('That is correct! Here\'s your flag: ' + flag)
  else:
    print(str(ans_num) + ' and ' + str(num) + ' are not equal.')
```

The thing I realized here, was that you can copy the two lines after the if, and paste them into the else, so it looks like this instead:

```
 if ans_num == num:
   flag = str_xor(flag_enc, 'enkidu')
   print('That is correct! Here\'s your flag: ' + flag)
 else:
   flag = str_xor(flag_enc, 'enkidu')
   print('That is correct! Here\'s your flag: ' + flag)
```

What this does, is that it prints out the flag, even though you don't provide the right binary. Save and run the script in your terminal, and when it asks about the binary number, just type in a random number like this:

```
root@LAPTOP-B22FTJC2:/mnt/c/Users/Bruger/Downloads# python3 convertme.py
If 27 is in decimal base, what is it in binary base?
Answer: 1
That is correct! Here's your flag: picoCTF{4ll_y0ur_b4535_9c3b7d4d}
```

And there is the flag!

Flag: picoCTF{4ll_y0ur_b4535_9c3b7d4d}