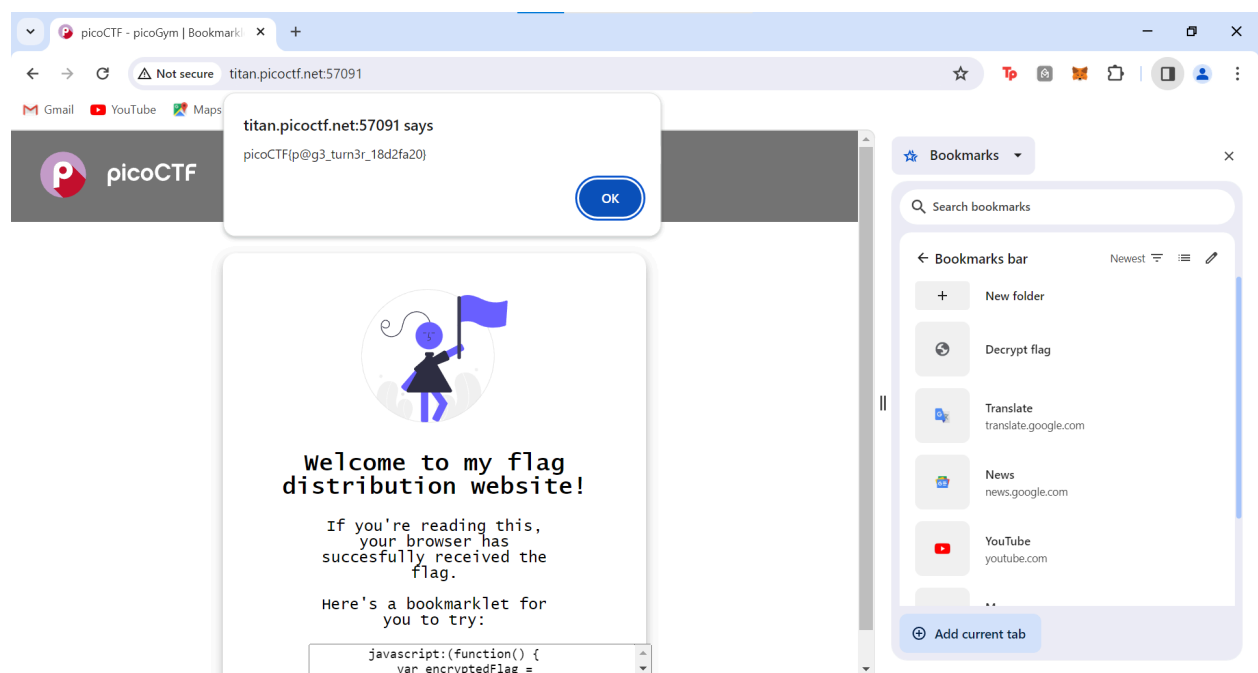


Question: Super SSH

```
azmina_sharaf-picoctf@webshell:~$ ssh ctf-player@titan.picoctf.net -p 60572
The authenticity of host '[titan.picoctf.net]:60572 ([3.139.174.234]:60572)' can't be established.
ED25519 key fingerprint is SHA256:4S9EbTSSRZm32I+cdM5TyzthpQryv5kudRP9PIKT7XQ.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '[titan.picoctf.net]:60572' (ED25519) to the list of known hosts.
ctf-player@titan.picoctf.net's password:
Welcome ctf-player, here's your flag: picoCTF{s3cur3_c0nn3ct10n_8306c99d}
Connection to titan.picoctf.net closed.
```

Question: Bookmarklet



Question: Commitment Issues

```
azmina_sharaf-picoctf@webshell:~$ ls
README.txt _challenge.zip.extracted challenge.zip challenge.zip.1 enc_flag index.html
azmina_sharaf-picoctf@webshell:~$ cd _challenge.zip.extracted
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted$ ls
0.zip _0.zip.extracted drop-in
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted$ cd _0.zip.extracted
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted$ ls
0.zip drop-in
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted$ cd drop-in
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted/drop-in$ ls
message.txt
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted/drop-in$ git log
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted/drop-in$ git checkout e720dc26a1a55405fbd4d338d465335c439fb3e -- message.txt
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted/drop-in$ ls
message.txt
azmina_sharaf-picoctf@webshell:~/_challenge.zip.extracted/_0.zip.extracted/drop-in$ cat message.txt
picoCTF{s@nitiz3_7246792d}
```

Question: interencdec

The text was decrypted from base64 twice and then deciphered using a caesar cipher tool to obtain the flag.

Question: Time Machine

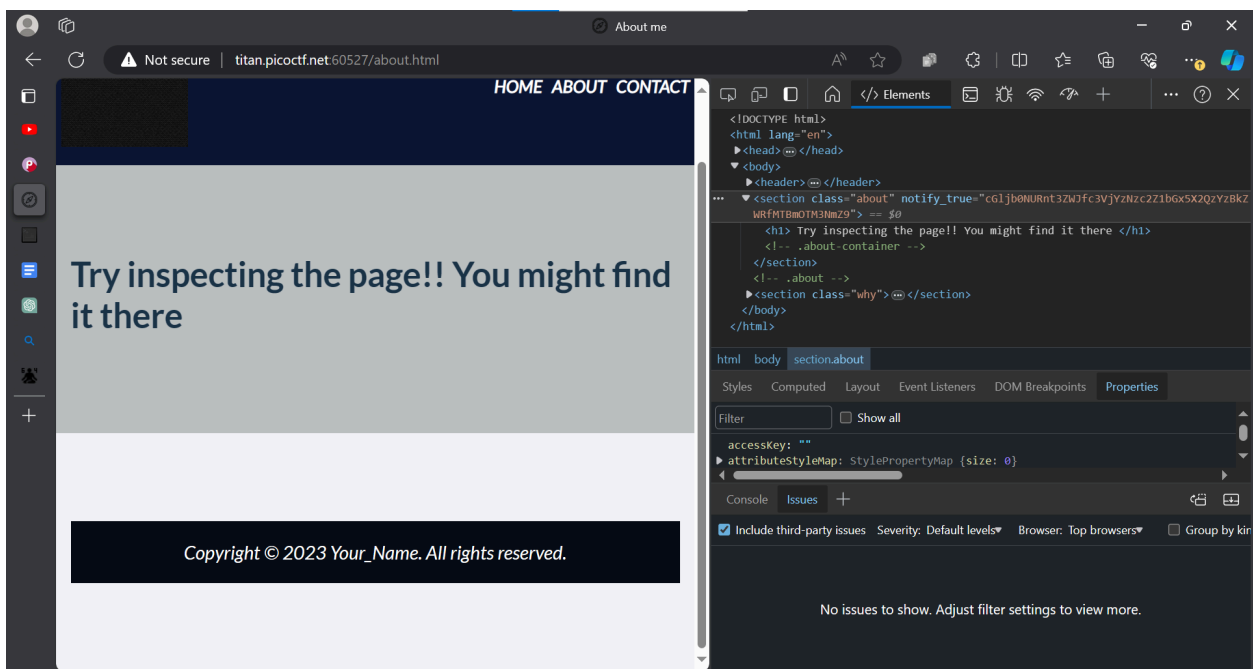
```
commit b92bdd8ec87a21ba45e77bd9bed3e4893faafd0f (HEAD -> master)
Author: picoCTF <ops@picoctf.com>
Date: Sat Mar 9 21:10:29 2024 +0000

    picoCTF{t1m3m@ch1n3_5cde9075}

(END)
```

After extracting the zip file, I headed over to the hand-in directory and used the command 'git log' to get the flag

Question: WebDecode



Found an encoded piece of string while inspecting the About page, ran the string through a base64 decoder and caught the flag.

Question: Scan Surprise

Scanned the given Qr code using an online QR code scanner and obtained the flag

Question: Verify

```
ctf-player@pico-chall$ sha256sum files/* | grep 5848768e56185707f76c1d74f34f4e03fb0573ecc1ca7b11238007226654bcda
5848768e56185707f76c1d74f34f4e03fb0573ecc1ca7b11238007226654bcda  files/8eee7195
ctf-player@pico-chall$ ls
checksum.txt  decrypt.sh  files
ctf-player@pico-chall$ cd files
ctf-player@pico-chall$ cd 8eee7195
-bash: cd: 8eee7195: Not a directory
ctf-player@pico-chall$ cat 8eee7195
Salted__^&' abd
ZS@궁 xT      JUxoZU-ZQF9
ctf-player@pico-chall$ ./decrypt.sh files/8eee7195
-bash: ./decrypt.sh: No such file or directory
```

```
ctf-player@pico-chall$ cd ..
ctf-player@pico-chall$ ls
checksum.txt  decrypt.sh  files
ctf-player@pico-chall$ ./decrypt.sh files/8eee7195
picoCTF{trust_but_verify_8eee7195}
ctf-player@pico-chall$ Connection to rhea.picocTF.net closed by remote host.
Connection to rhea.picocTF.net closed.
```

Question: Blame game

Used “git blame message.py” command to obtain the flag.

Question: Collaborative Development

```
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git branch -a
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git checkout main
Already on 'main'
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git merge feature/part-1
Updating 54c7842..f65544e
Fast-forward
 flag.py | 1 +
 1 file changed, 1 insertion(+)
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git checkout main
Already on 'main'
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git merge feature/part-2
Committer identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <ops@picocTF.com>) not allowed
azmina_sharaf-picocTF@webshell:~/_challenge.zip.4.extracted/drop-in$ git config user.email "ops@picocTF.com"
```

```

flag.py
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ cat flag.py
print("Printing the flag...")
print("picoCTF{t3@mw0rk_", end='')
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git checkout feature/part-2
Switched to branch 'feature/part-2'
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git rebase main
Auto-merging flag.py
CONFLICT (content): Merge conflict in flag.py
error: could not apply d3563a2... add part 2
hint: Resolve all conflicts manually, mark them as resolved with
hint: "git add/rm <conflicted_files>", then run "git rebase --continue".
hint: You can instead skip this commit: run "git rebase --skip".
hint: To abort and get back to the state before "git rebase", run "git rebase --abort".
Could not apply d3563a2... add part 2
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ nano flag.py

```

```

azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git checkout feature/part-3
flag.py: needs merge
error: you need to resolve your current index first
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ nano flag.py
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git add flag.py
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git commit -m "Resolve conflict in flag.py"
Author identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <ops@picoctf.com>) not allowed
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ cat flag.py
print("Printing the flag")
print("picoCTF{t3@mw0rk_m@k3s_th3_dr3@m_", end='')
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git config user.name "Azmina_sharaf"
azmina_sharaf-picoctf@webshell:~/_challenge.zip.4.extracted/drop-in$ git commit -m "Resolve conflict in flag.py"
[detached HEAD c342d2a] Resolve conflict in flag.py
1 file changed, 2 insertions(+), 2 deletions(-)

```

```

Switched to branch 'feature/part-3'
azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$ git rebase main
fatal: It seems that there is already a rebase-merge directory, and
I wonder if you are in the middle of another rebase. If that is the
case, please try
    git rebase (--continue | --abort | --skip)
If that is not the case, please
    rm -fr ".git/rebase-merge"
and run me again. I am stopping in case you still have something
valuable there.

azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$ git status
On branch feature/part-3
Last command done (1 command done):
    pick d3563a2 add part 2
No commands remaining.
You are currently editing a commit while rebasing branch 'feature/part-2' on 'f65544e'.
    (use "git commit --amend" to amend the current commit)
    (use "git rebase --continue" once you are satisfied with your changes)

nothing to commit, working tree clean
azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$ git rebase --continue
Successfully rebased and updated refs/heads/feature/part-2.
azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$ ls
flag.py
azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$ cat flag.py
print("Printing the flag...")

print("w0rk_7ffa0077}")
azmina_sharaf-picocftf@webshell:~/_challenge.zip.4.extracted/drop-in$

```

Question: CanYouSee

Unzipped the file using binwalk command to reveal a jpg file. Ran exiftool command on the file to find a base64 encoded text as Attribution URL. Used an online base64 decoder to obtain the flag.

Question: format string 0

I first analysed the format-string-0.c file and notices the buffer overflow was 32 bytes. Then I ran the port command and put 'aa' as the input causing buffer overflow and getting the flag.

Question: Binary Search

Found the flag by guessing the right number

Question: Secret of the polyglot

The file downloaded was a pdf file that contained the last part of the flag. I ran exiftool command on it and discovered that it was a png file. I change the file extension from pdf to png to obtain the first part of the flag.

Question: endianness

Modifies the given c code to return the little endian and big endian value of the word obtained from user prompt:

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <stdbool.h>
#include <ctype.h>
#include <time.h>

char *find_little_endian(const char *word)
{
    size_t word_len = strlen(word);
    char *little_endian = (char *)malloc((2 * word_len + 1) * sizeof(char));

    for (size_t i = word_len; i-- > 0;)
    {
        snprintf(&little_endian[(word_len - 1 - i) * 2], 3, "%02X", (unsigned char)word[i]);
    }

    little_endian[2 * word_len] = '\0';
    return little_endian;
}

char *find_big_endian(const char *word)
{
    size_t length = strlen(word);
    char *big_endian = (char *)malloc((2 * length + 1) * sizeof(char));

    for (size_t i = 0; i < length; i++)
    {
        snprintf(&big_endian[i * 2], 3, "%02X", (unsigned char)word[i]);
    }

    big_endian[2 * length] = '\0';
    return big_endian;
}

int main()
{
    char challenge_word[50];
    printf("Enter a word: ");
```

```
scanf("%s", challenge_word);

char *little_endian = find_little_endian(challenge_word);
char *big_endian = find_big_endian(challenge_word);

printf("Little Endian: %s\n", little_endian);
printf("Big Endian: %s\n", big_endian);

free(little_endian);
free(big_endian);

return 0;
}
```

Input the little endian and big endian value of the word in the webshell to obtain the flag.