Forster Boateng 18.7.2023

Pico CTF Report

(Forster Boateng)

1 Introduction

Write short introduction here.

The picoCTF report is part of the Introduction to Information Security Course exercises. This report tells how the picoCTF challenges were solved and with supporting screen shots. The solve challenges can be found in the link below:

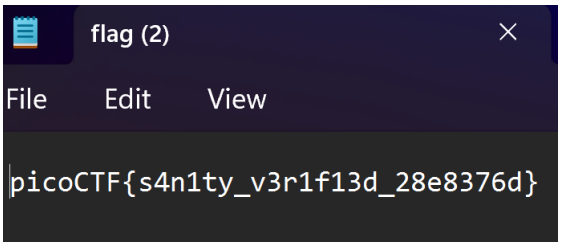
https://play.picoctf.org/practice?page=1

2 Solved challenges /

2.1 Name of solved challenge here / Obedient Cat

Write here shortly how you solved the challenge. It was straight forward, downloaded the code and the flag was easy to find.

Place supportive screenshots regarding the problem-solving process here.



2.2 Name of solved challenge here /wave a flag

Write here shortly how you solved the challenge. Downloaded the file and carefully searched the flag.

Place supportive screenshots regarding the problem-solving process here.

2.3 Name of solved challenge here. Transformation

Write here shortly how you solved the challenge. Looked for the flag in via google search.

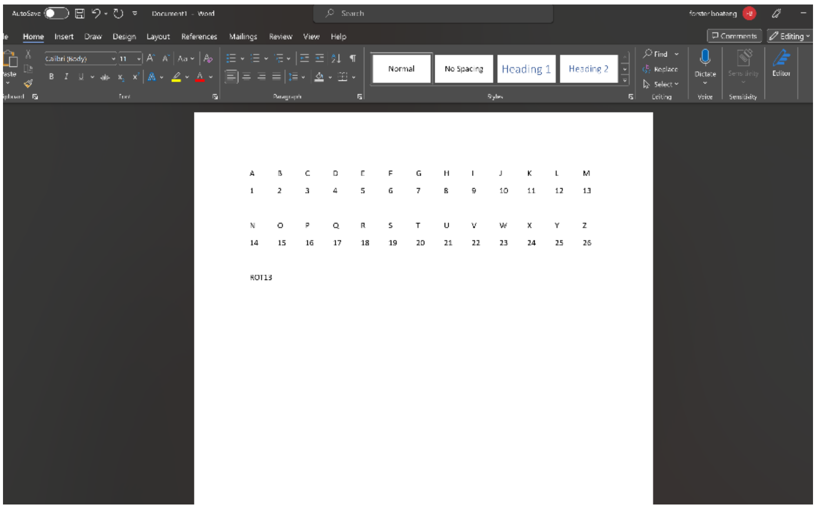
Place supportive screenshots regarding the problem-solving process here.

```python
enc = '灩捯䍔䙻ㄶ形楴獟楮獴㌴摟潦弸弲㘶㠴挲ぽ'
flag = ''

for i in range(len(enc)):
    flag += chr(ord(enc[i]) >> 8)
    flag += chr(ord(enc[i]) - (ord(flag[-1]) << 8))

print(flag)
# output: picoCTF{16_bits_inst34d_of_8_26684c20}
```

2.4 Name of solved challenge here /ROT13

Write here shortly how you solved the challenge. Solved it manually using the alphabet.

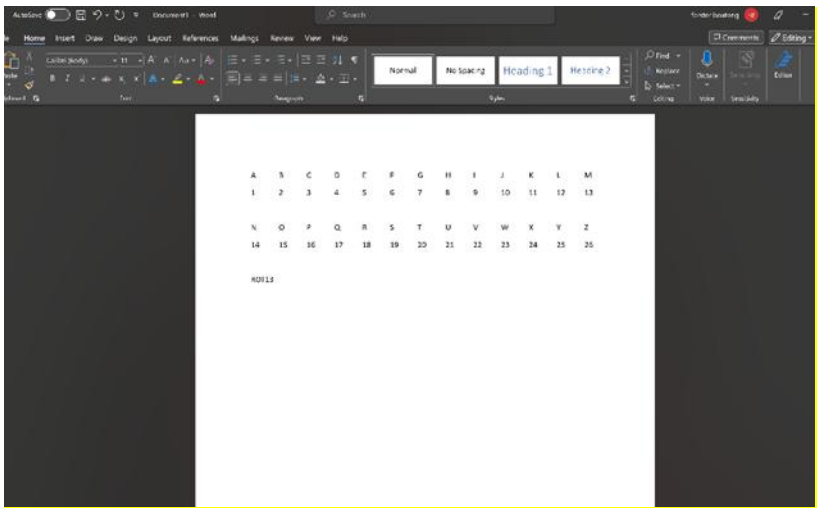
Place supportive screenshots regarding the problem-solving process here.



2.5 Name of solved challenge here /Mod 26

Write here shortly how you solved the challenge. Mod 26 was solved using the Rot 13 table.

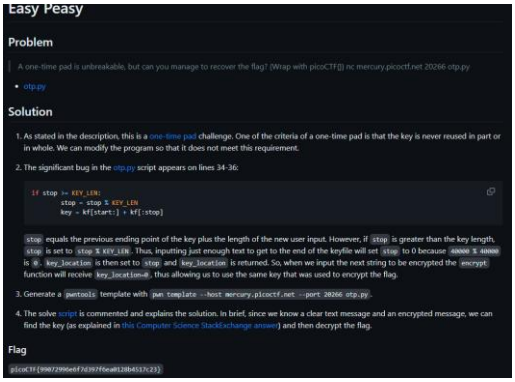
Place supportive screenshots regarding the problem-solving process here.



2.6 Name of solved challenge here / Easy Peasy.

Write here shortly how you solved the challenge. Googled the solution.

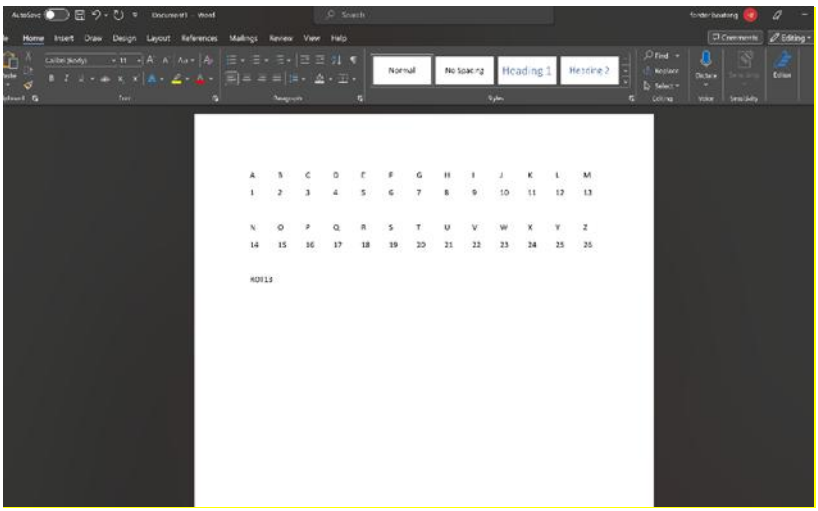
Place supportive screenshots regarding the problem-solving process here.



2.7 Name of solved challenge here / The numbers.

Write here shortly how you solved the challenge. It was solved using the rot 13 table.

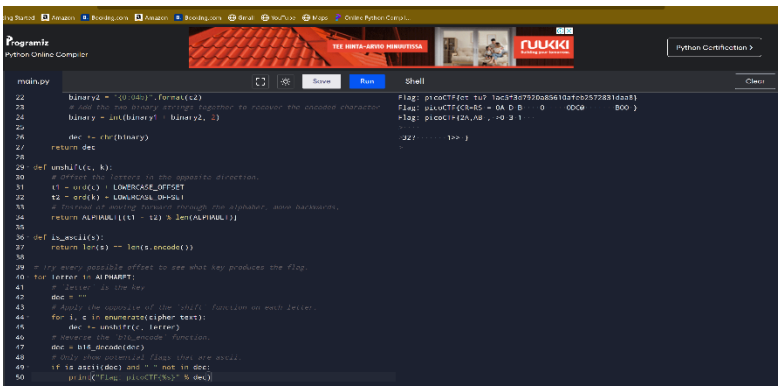
Place supportive screenshots regarding the problem-solving process here



2.8 Name of solved challenge here / New caesar

Write here shortly how you solved the challenge. I used python to generate the flag.

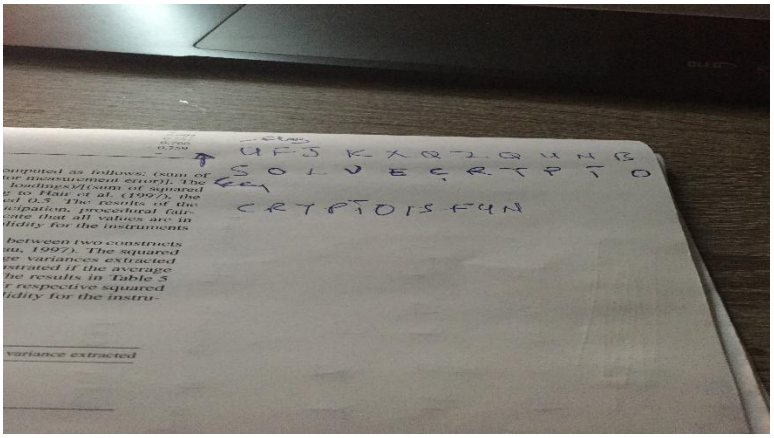
Place supportive screenshots regarding the problem-solving process here.



2.9 Name of solved challenge here / Easy 1

Write here shortly how you solved the challenge. Used the Vigenère's table to solve it manually.

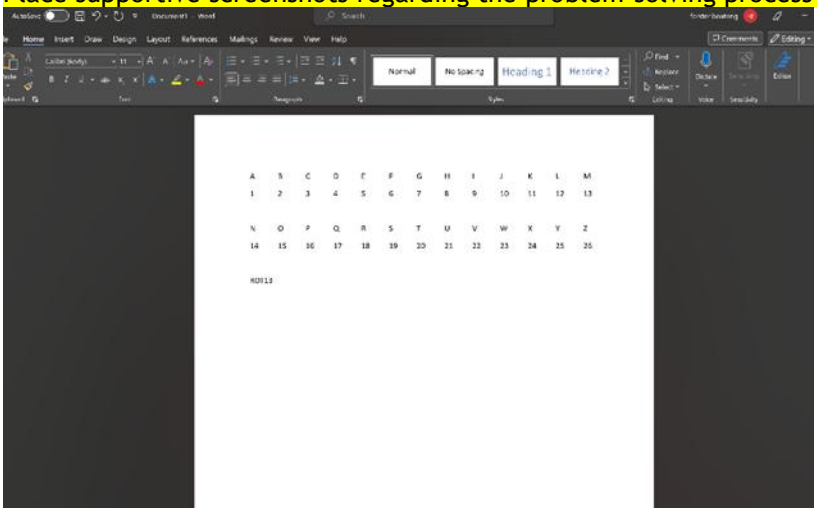
Place supportive screenshots regarding the problem-solving process here.



2.10 Name of solved challenge here / 13

Write here shortly how you solved the challenge. Used the ROT 13 table to solved it.

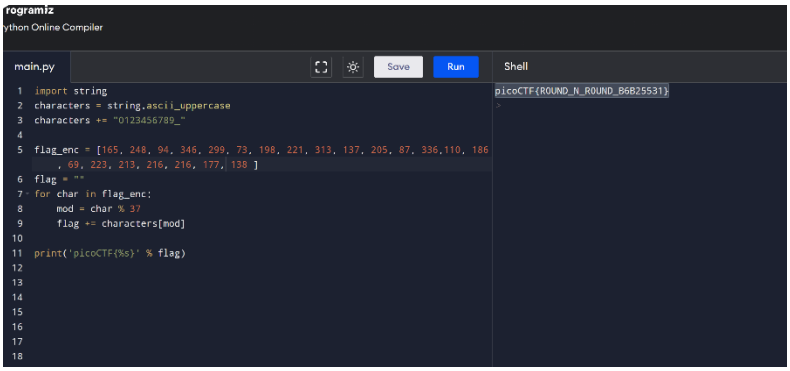
Place supportive screenshots regarding the problem-solving process here.



2.11 Name of solved challenge here / Basic mode1

Write here shortly how you solved the challenge. Used python to generate the flag.

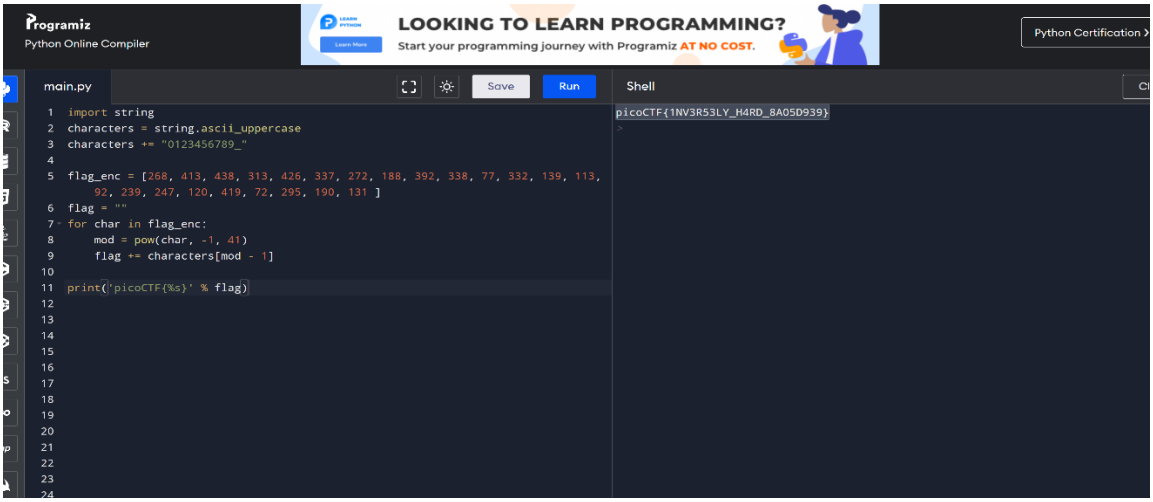
Place supportive screenshots regarding the problem-solving process here.



2.12 Name of solved challenge here / Basic mode 2

Write here shortly how you solved the challenge. Used python to generate the flag.

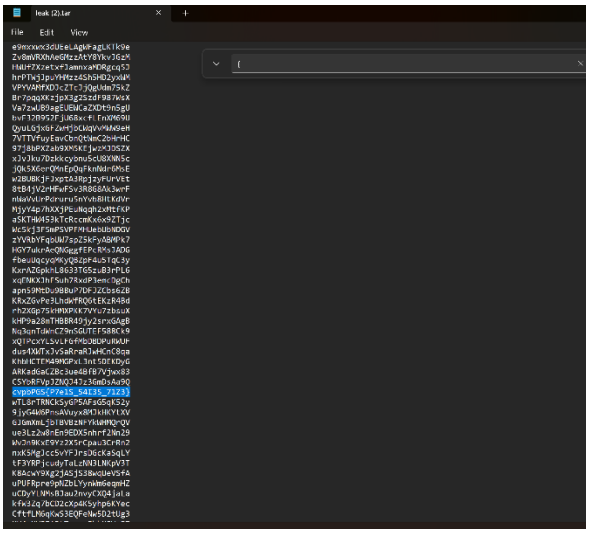
Place supportive screenshots regarding the problem-solving process here.



2.13 Name of solved challenge here / Credstuff

Write here shortly how you solved the challenge. ROT 13 table was used to decode the flag in the given text.

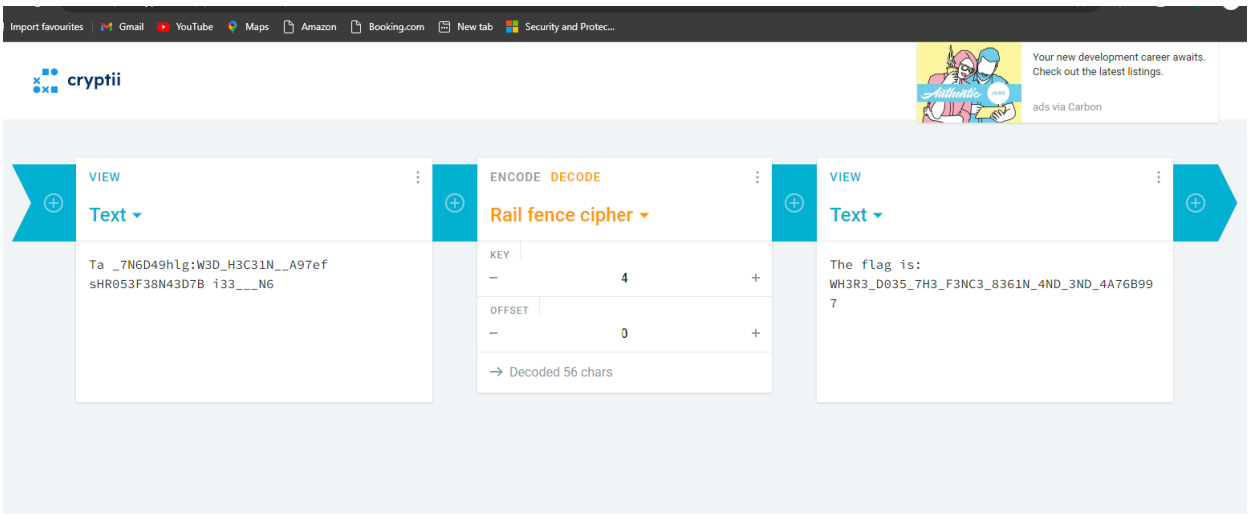
Place supportive screenshots regarding the problem-solving process here.



2.14 Name of solved challenge here / Railfence

Write here shortly how you solved the challenge. Crytii was used to generate the flag from the given text.

Place supportive screenshots regarding the problem-solving process here.



2.15 Name of solved challenge here / Substitution 0

Write here shortly how you solved the challenge. Online tool named dcode was used to decode the text.

Place supportive screenshots regarding the problem-solving process here.

2.16 Name of solved challenge here / Substitution 1

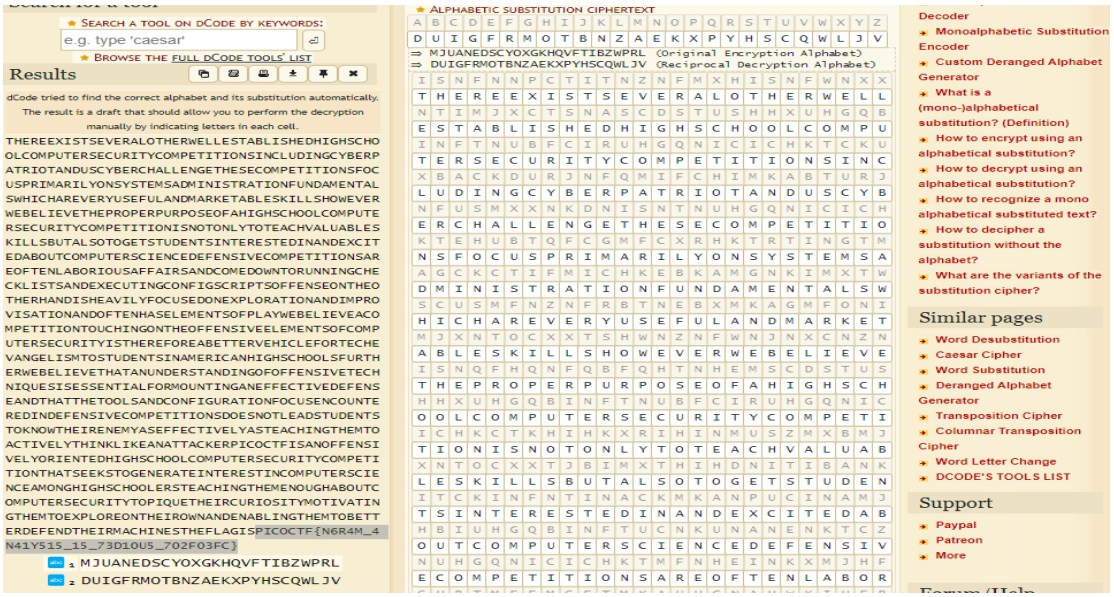
Write here shortly how you solved the challenge. Online tool named quipquip was used to decode the text.

Place supportive screenshots regarding the problem-solving process here.

2.17 Name of solved challenge here / Substitution 2

Write here shortly how you solved the challenge. Online tool was used to decode the text.

Place supportive screenshots regarding the problem-solving process here.



2.18 Name of solved challenge here / Transposition trial

Write here shortly how you solved the challenge. Python was used to print out the flag.

Place supportive screenshots regarding the problem-solving process here.

2.19 Name of solved challenge here / Vigenère

2.20 Write here shortly how you solved the challenge. Vigenère cipher table was used to decode the text.

Place supportive screenshots regarding the problem-solving process here.

2.21 Name of solved challenge here / Flags

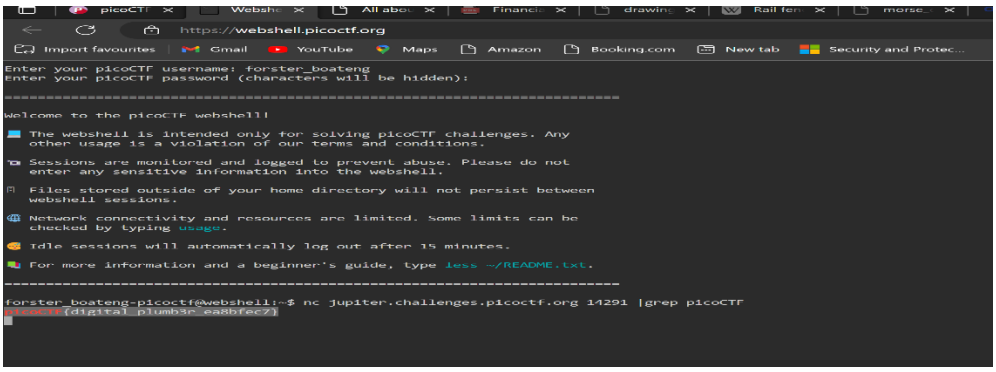
Write here shortly how you solved the challenge. Using Wikipedia, I was able to identify the flag as codes of the maritime signal flags.

Place supportive screenshots regarding the problem-solving process here.

2.22 Name of solved challenge here / Plumbing

Write here shortly how you solved the challenge. Used Linux to find the flag by adding the command |grep to the given Linux command line.

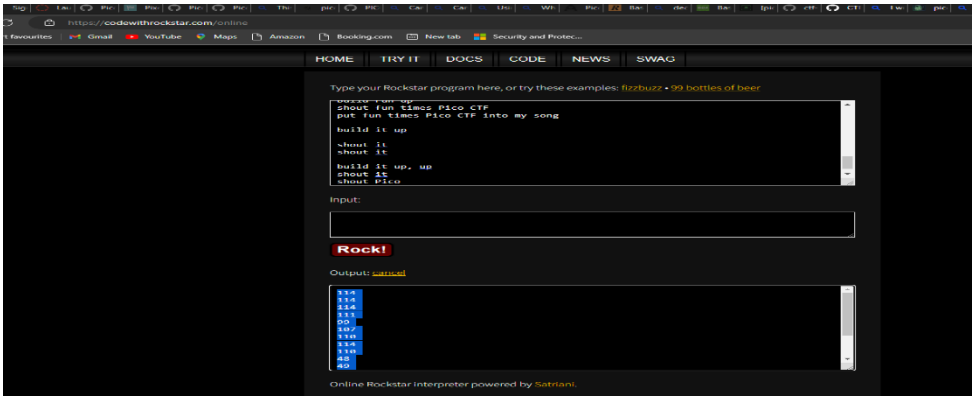
Place supportive screenshots regarding the problem-solving process here.

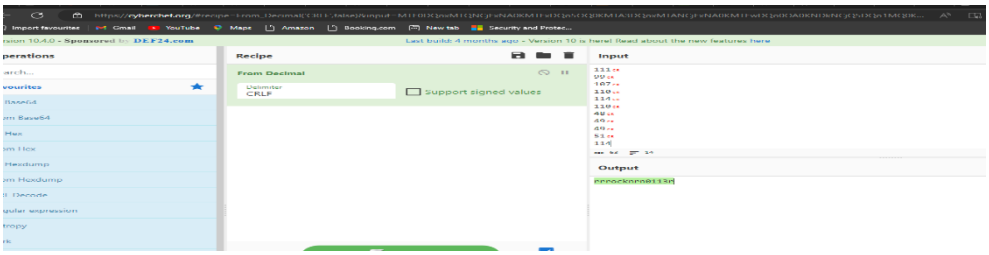


2.23 Name of solved challenge here / music1

Write here shortly how you solved the challenge. Used online tool called codewithrockstar to decode the text and then used cyberchef to convert the numbers given from the codewithrockstar to the flag.

Place supportive screenshots regarding the problem-solving process here.

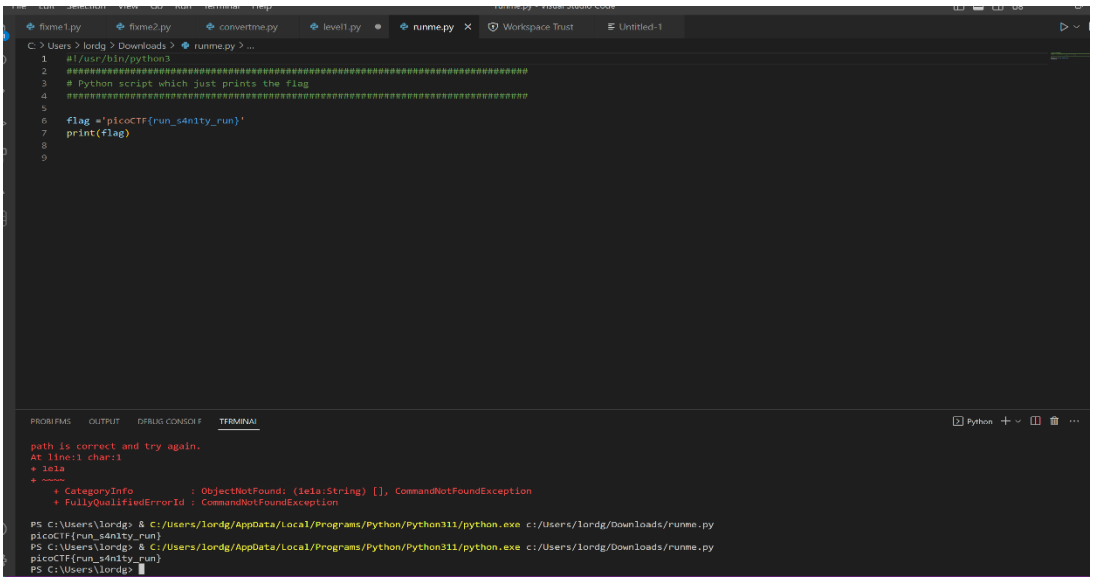




2.24 Name of solved challenge here / runme.py

Write here shortly how you solved the challenge. Used the python in Visual Studio to print the flag.

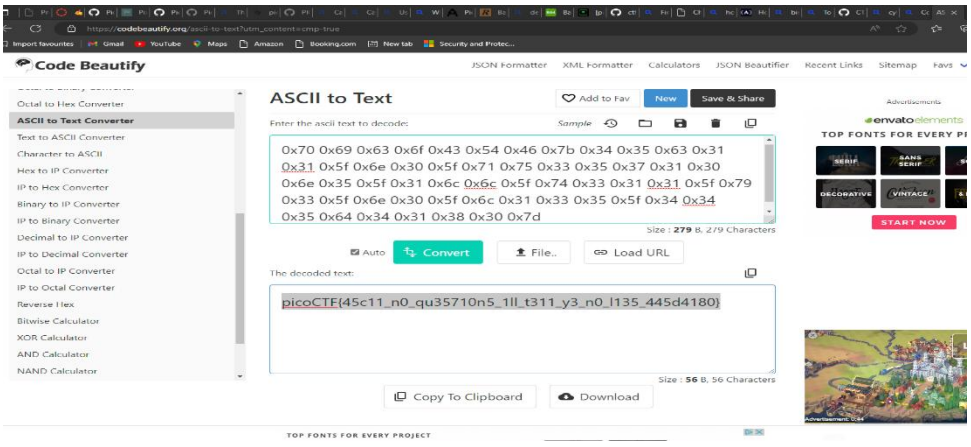
Place supportive screenshots regarding the problem-solving process here.



2.25 Name of solved challenge here / ASCII

Write here shortly how you solved the challenge. I used online tool called codebeautify to convert ASCII strings to the flag.

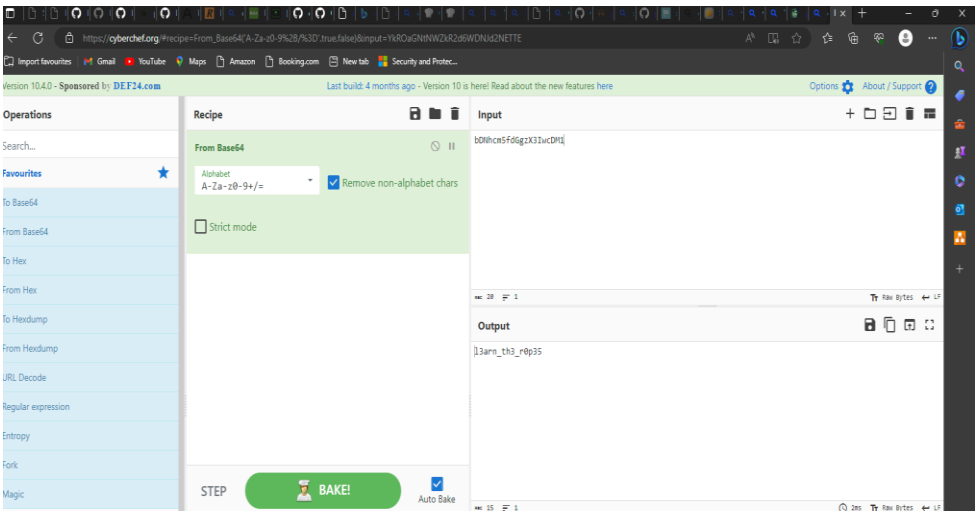
Place supportive screenshots regarding the problem-solving process here.



2.26 Name of solved challenge here / Bases

Write here shortly how you solved the challenge. Used online tool cyberchef solved the problem.

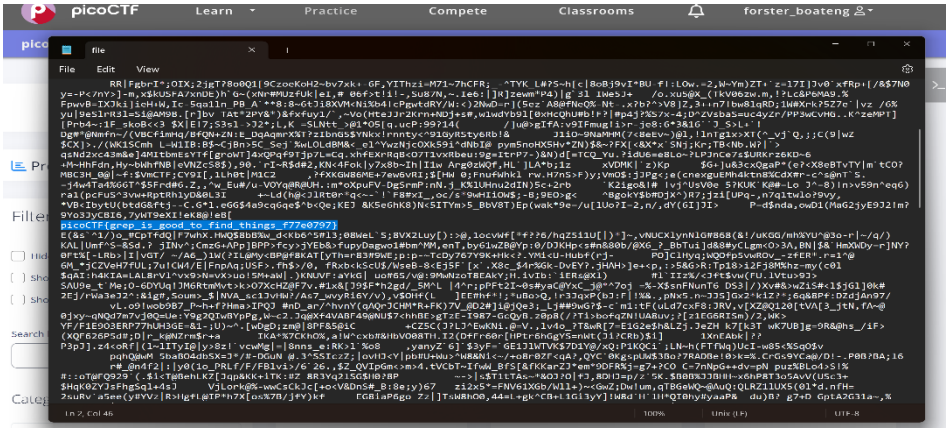
Place supportive screenshots regarding the problem-solving process here.



2.27 Name of solved challenge here / First grep

Write here shortly how you solved the challenge. Spotted the flag in the given text.

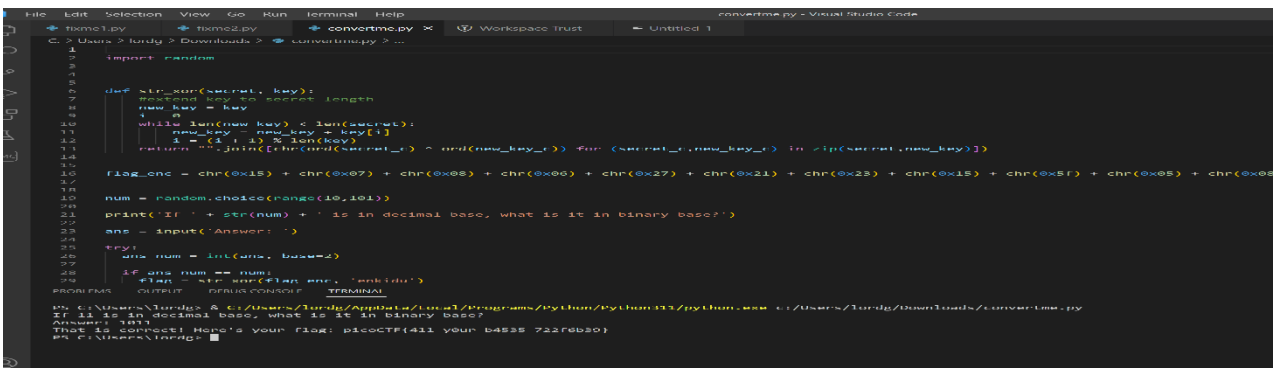
Place supportive screenshots regarding the problem-solving process here.



2.28 Name of solved challenge here / Covertme.py

Write here shortly how you solved the challenge. Used python to find a number and then used the binary of that number in python to find the flag.

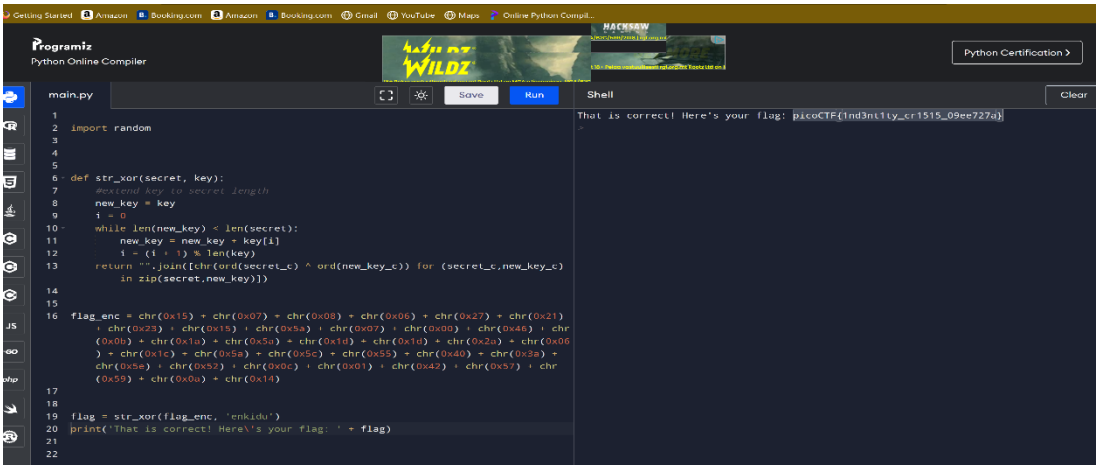
Place supportive screenshots regarding the problem-solving process here.



2.29 Name of solved challenge here / fixme1.py

Write here shortly how you solved the challenge. I fixed the python syntax and that led to the flag.

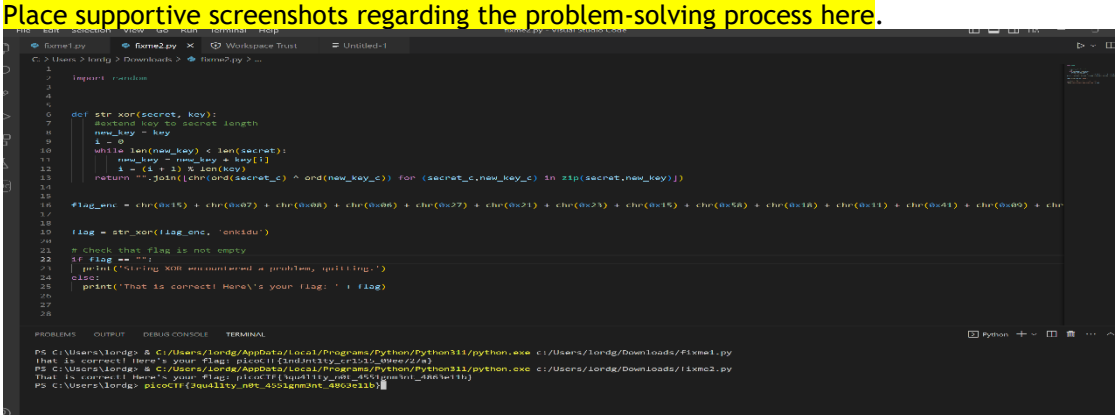
Place supportive screenshots regarding the problem-solving process here.



2.30 Name of solved challenge here / fixedme2.py

Write here shortly how you solved the challenge I fixed the python syntax and that led to the flag.

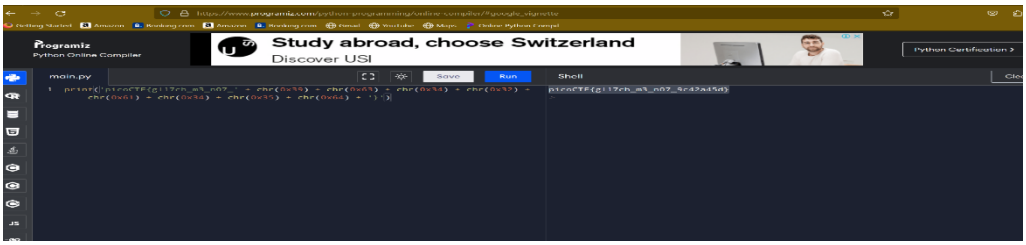
Place supportive screenshots regarding the problem-solving process here.



2.31 Name of solved challenge here / Glitch_cat

Write here shortly how you solved the challenge. I used python to print out the flag.

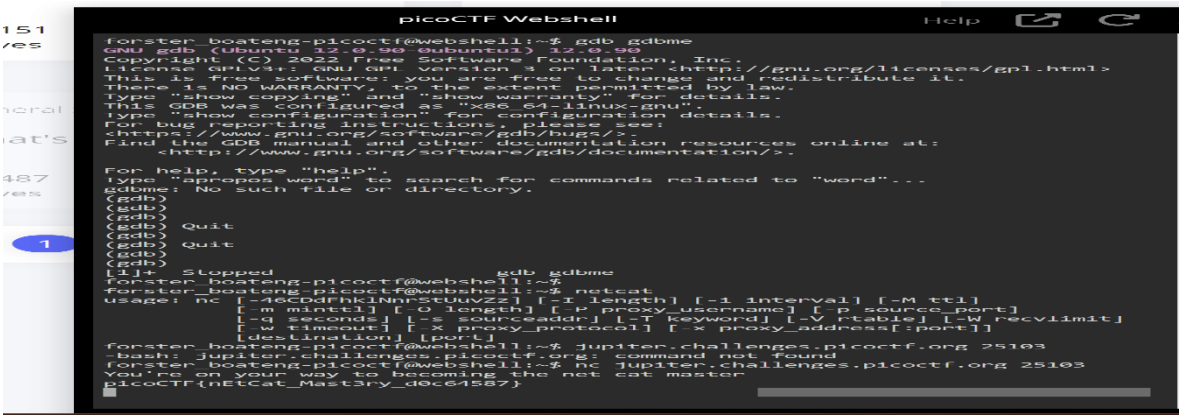
Place supportive screenshots regarding the problem-solving process here.



2.32 Name of solved challenge here / What is a net cat?

Write here shortly how you solved the challenge. I used picoCTF webshell to run the command line in order to find the flag.

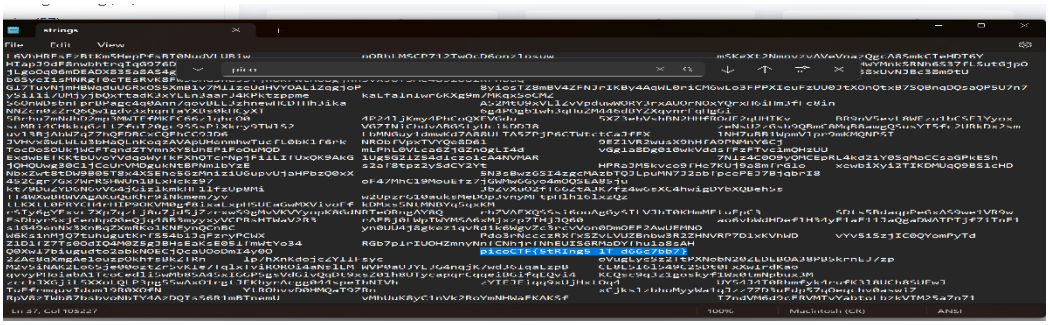
Place supportive screenshots regarding the problem-solving process here.



2.33 Name of solved challenge here / Strings it.

Write here shortly how you solved the challenge. I copied the text into note pad and then searched for the flag.

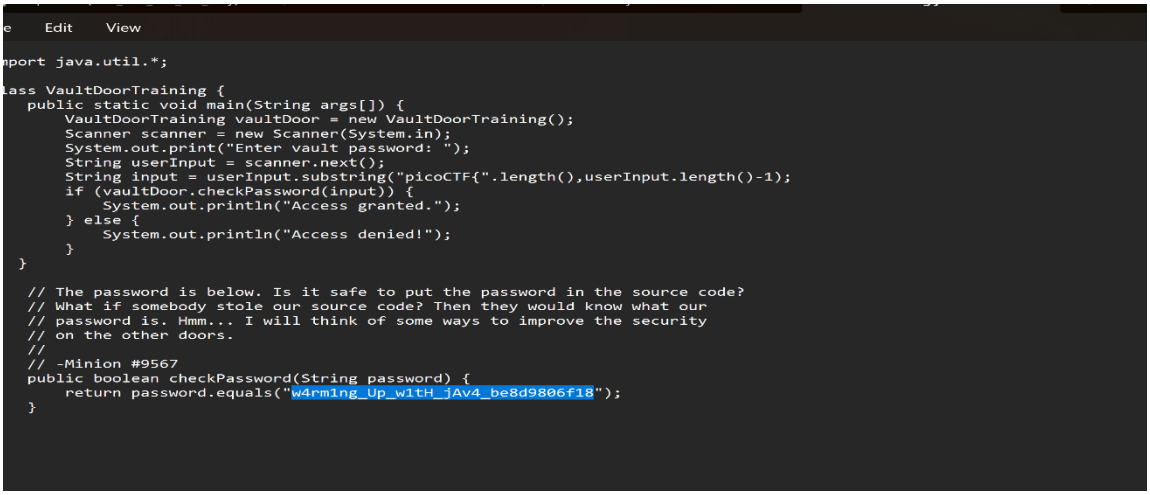
Place supportive screenshots regarding the problem-solving process here.



2.34 Name of solved challenge here / vault-door-training.

Write here shortly how you solved the challenge. The flag is the password in the code given.

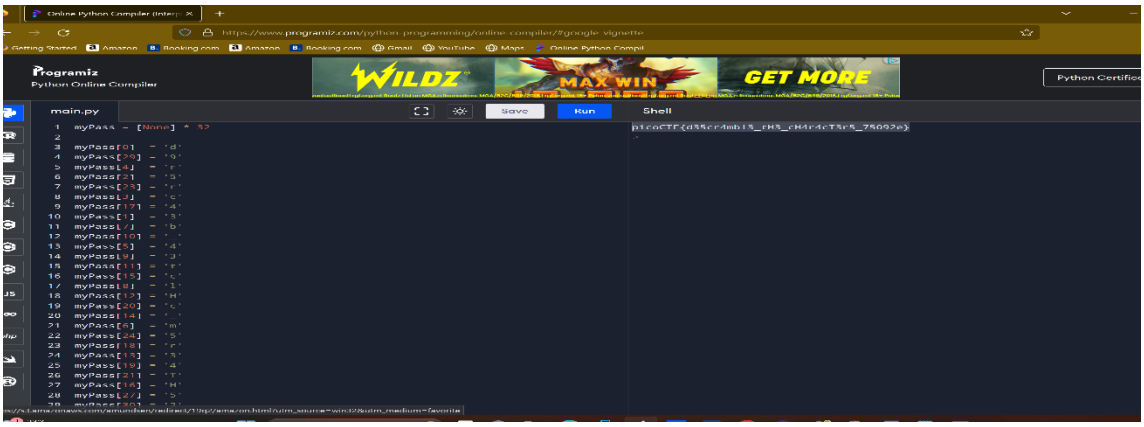
Place supportive screenshots regarding the problem-solving process here.



2.35 Name of solved challenge here / Vault-door1.

Write here shortly how you solved the challenge. Online python compiler was used to run the code and then printed the flag as shown in the image below.

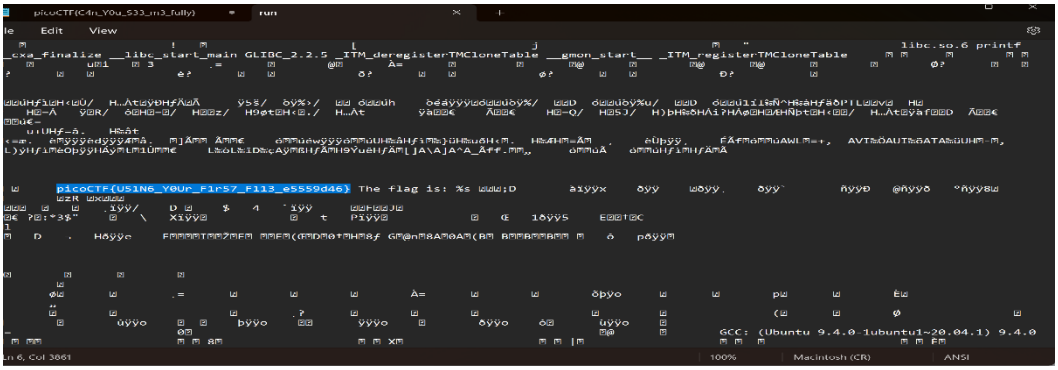
Place supportive screenshots regarding the problem-solving process here.



2.36 Name of solved challenge here / File-run1.

Write here shortly how you solved the challenge. I spotted the flag in the given program.

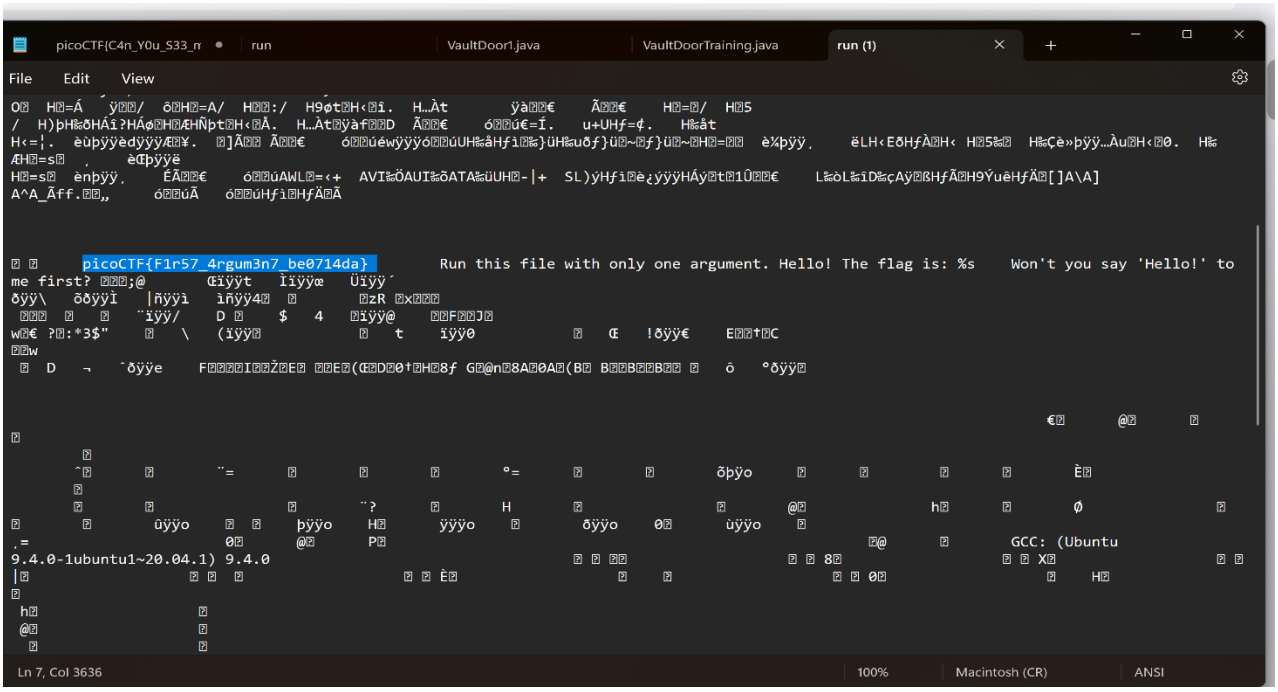
Place supportive screenshots regarding the problem-solving process here.



2.37 Name of solved challenge here / File-run2.

Write here shortly how you solved the challenge. I spotted the flag in the given program.

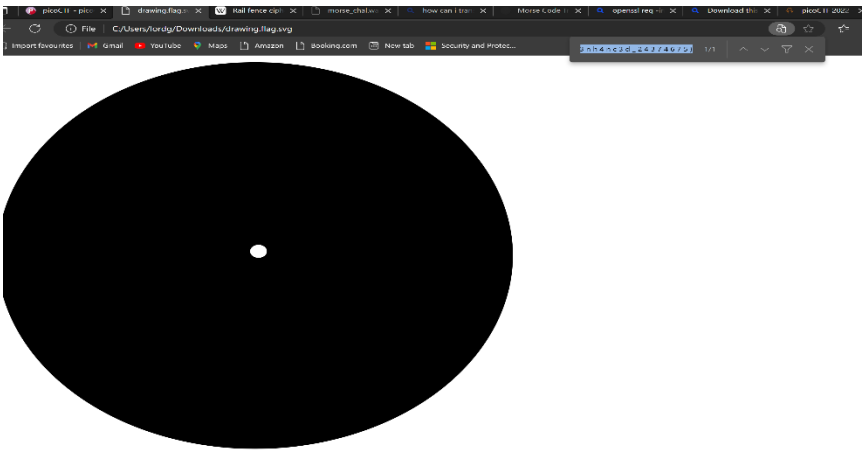
Place supportive screenshots regarding the problem-solving process here.



2.38 Name of solved challenge here / Enhance!.

Write here shortly how you solved the challenge. Control f reveals the flag from the image.

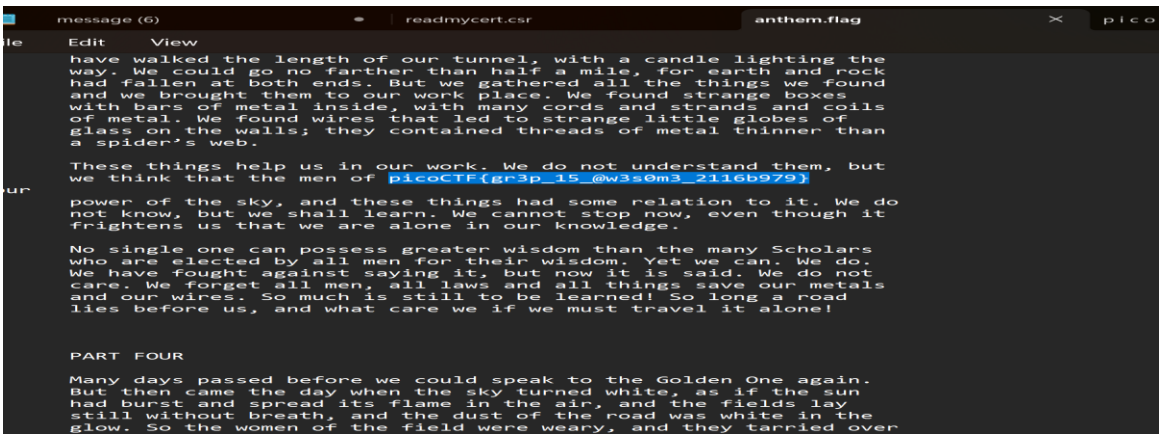
Place supportive screenshots regarding the problem-solving process here. The flag in blue color on the left side of the image.



2.39 Name of solved challenge here / Lookey here.

Write here shortly how you solved the challenge. I downloaded the flag in notepad and looked for the flag.

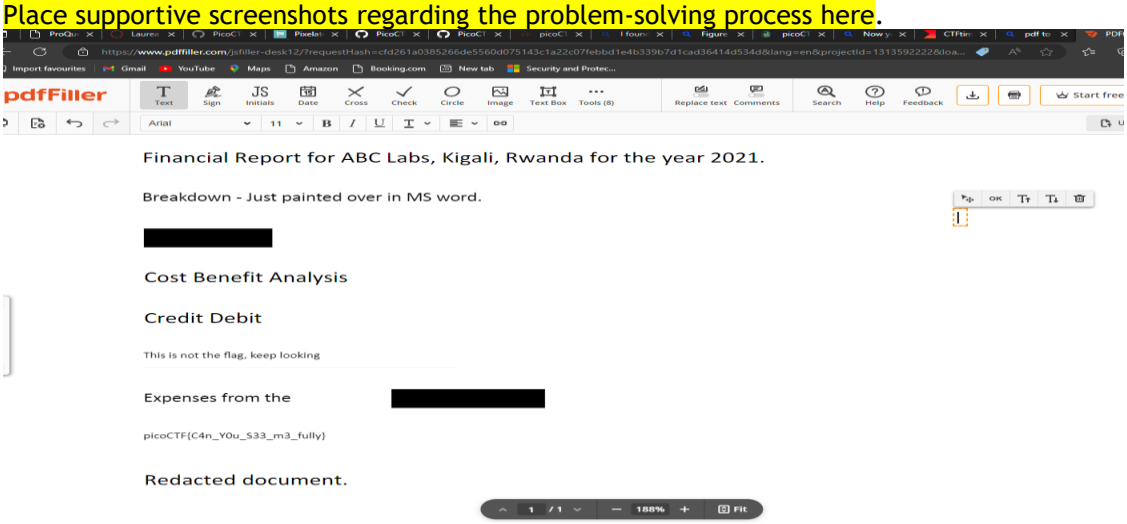
Place supportive screenshots regarding the problem-solving process here.



2.40 Name of solved challenge here / Redacted.

Write here shortly how you solved the challenge. I used online tool called pdffiller to find the text that has been redacted and this revealed the flag.

Place supportive screenshots regarding the problem-solving process here.



3 Reflection

Write here a reflection regarding your CTF-training. Kindly describe what was rewarding, what was challenging and what could be improved in the future.

The training has been fun and interesting. In the beginning, it was challenging but it turned out to be fun when I understood the rules behind it. I could not be solved much of forensic and web exploration because I lacked some understanding of what is being demanded to capture the flag. I have also taken much interest in cryptography and have been introduce to lots of online code interpreters.

I would need to improve on my python skills and Linux.

References

<Add your references here>Pease note that references are not written in accordance with Laurea's lay down methods.

https://codewithrockstar.com/online

https://cryptii.com/pipes/caesar-cipher

https://cyberchef.org/

https://en.wikipedia.org/wiki/International_maritime_signal_flags

https://en.wikipedia.org/wiki/Vigen%C3%A8re_cipher

https://quipqiup.com/

https://www.base64decode.org/

https://www.boxentriq.com/code-breaking/vigenere-cipher

https://www.dcode.fr/caesar-cipher

https://www.guballa.de/substitution-solver

https://www.rapidtables.com/convert/number/base-converter.html

https://www.rapidtables.com/convert/number/hex-to-ascii.html