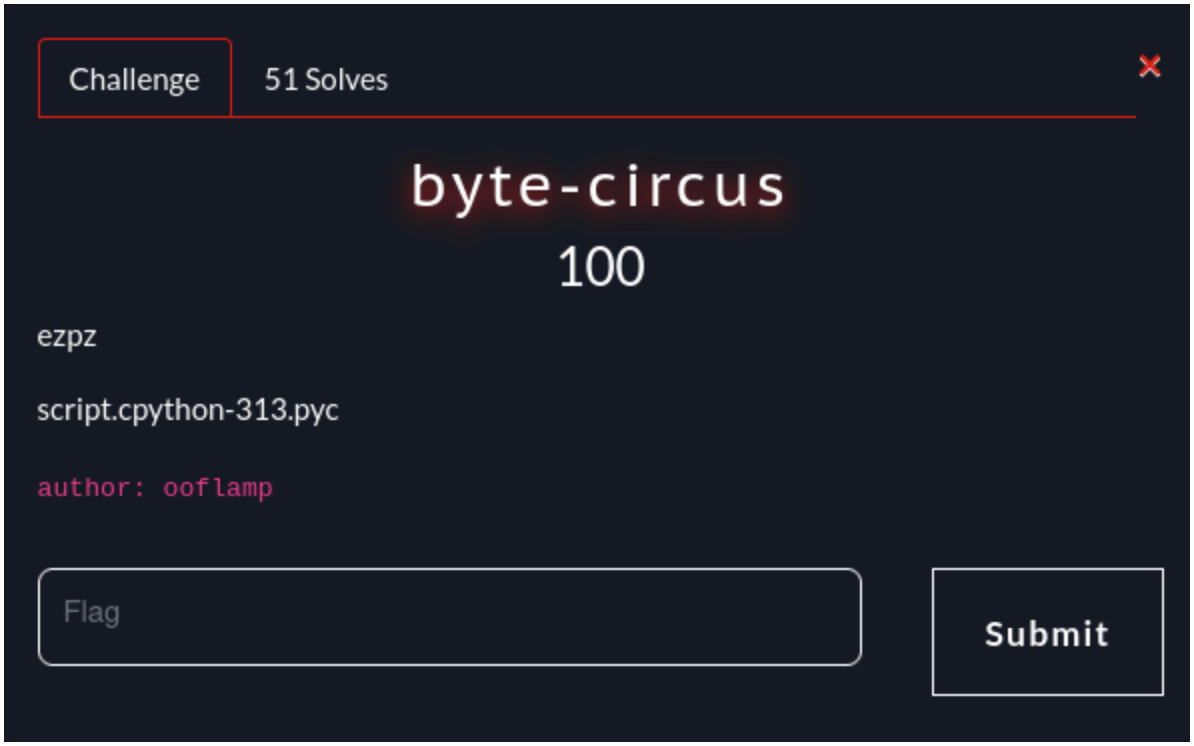
Write-Up: Byte-Circus

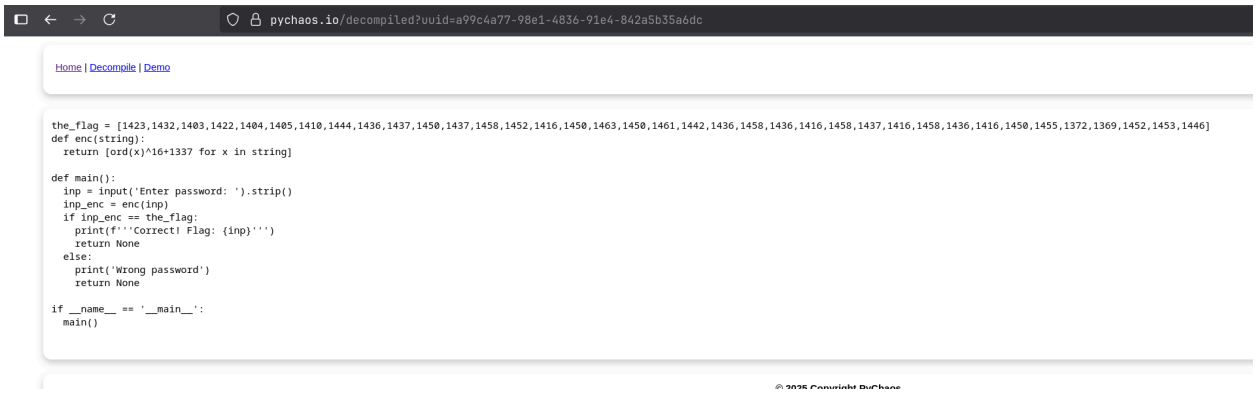
Player: Constantine
Kategori: Reverse Engineering



Phase 1: Decompilation & Static Analysis

Dapet file script.cpython-313.pyc, daripada pusing baca *opcode* manual pakai dis module, aku langsung pakai tools online **pychaos** untuk melakukan decompile .pyc ke .py.

Output Decompiler:



Phase 3: Execution

Aku minta **Gemini** untuk generate *solver script* berdasarkan code di atas.

Solver Script (poc.py):

```python
def solve():
    # Array dari soal
    the_flag = [
        1423, 1432, 1403, 1422, 1404, 1405, 1410, 1444, 1436, 1437,
        1450, 1437, 1458, 1452, 1416, 1450, 1463, 1450, 1461, 1442,
        1436, 1458, 1436, 1416, 1458, 1437, 1416, 1458, 1436, 1416,
        1450, 1455, 1372, 1369, 1452, 1453, 1446
    ]

    decoded_flag = ""

    for value in the_flag:
        # 1. Kurangi offset (inverse dari + 1337)
        temp = value - 1337
        # 2. XOR dengan key (inverse dari ^ 16)
        original_ord = temp ^ 16
        # 3. Konversi ke karakter
        decoded_flag += chr(original_ord)

    print(f"Flag Found: {decoded_flag}")

if __name__ == '__main__':
    solve()
```

Execute:

```
constantine ~/OprecForesty/byte-circus (solved) v3.13.7 14:45 ❯ python poc.py
Flag Found: FORESTY{static_analysis_it_is_af30cd}
```

Flag: FORESTY{static_analysis_it_is_af30cd}