

# When I searched for the strings in the file I found a bunch of numbers :

```
[ ]A\A^A
Enter Password (or q to quit):
5753 5625 6649 5625 9209 5497 4857 4985 4409 5689 5561 5625 4729 5753 4473 5561 4985 4793 4793 4409 5625 4729 5497 4985 4921 4793
4921 4409 4601 4601 4729 5689 4793 4601 4793 4793 4409 4537 5497 4985 4857 5561 4729 5817 4921 4473 5817 5561 4665 4601 4793 4409
5625 5561 4729 5497 4729 4601 4409 5497 5689 5561 5625 4729 5625 4729 4921 4921 5625 9337
Access Granted
Access Denied
```

# Then I decompiled the file, using <https://dogbolt.org/> and **BinaryNinja**. If we look at line 523 at sub\_183a function where are called the numbers, and look inside this function, we can see this operation of numbers ( line 485 ) :

**sub\_1b9b(&var\_68, (\*sub\_1e16(&var\_80) << 6) + 0x539);**

# This practically means, we need to take each number, add 1337 ( decimal of 0x539 ) and bitwise right shift by 6. This is the Python code :

```
def decode(ls):
    decoded_chars = [(value - 1337) >> 6 for value in ls]
    return ''.join(chr(c) for c in decoded_chars)

def main() :
    values = [5753, 5625, 6649, 5625, 9209, 5497, 4857, 4985,
4409, 5689, 5561, 5625, 4729, 5753, 4473, 5561, 4985, 4793, 4793, 4409,
5625, 4729, 5497, 4985, 4921, 4793, 4921, 4409, 4601, 4601, 4729, 5689,
4793, 4601, 4793, 4793, 4409, 4537, 5497, 4985, 4857, 5561, 4729, 5817,
4921, 4473, 5817, 5561, 4665, 4601, 4793, 4409, 5625, 5561, 4729, 5497,
4729, 4601, 4409, 5497, 5689, 5561, 5625, 4729, 5625, 4729, 4921, 4921,
5625, 9337]

    print(decode(values))

if __name__ == "__main__" :
    main()
```

THE FLAG :

ECSC{A790DBC5E1B9660C5A98680335D636602A97B5F81FB4360CB5A530ADBC5C588  
C}  
~Z4que