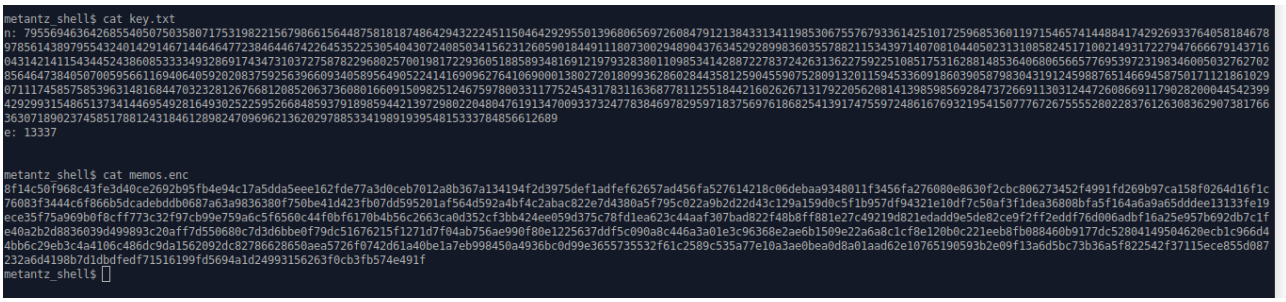
DeFUNct Ransomware

We have 2 files for this challenge:

key.txt and **memocs.enc**:



Ok it seems like RSA because the author gives us n and e.
Let's try to find out what are the factors of n using the site https://www.alpertron.com.ar/ECM.HTM

We see that $n = a^2$.

$n = a^2$

a = 28205 840949 042550 050375 060175 461550 675872 057306 348525 019794 792025 366267 703366 963350 546190 265683 480293 098224 696154 769777 214758 340593 627880 393290 492256 281553 041775 628653 782036 383202 053381 983191 251113 155877 395626 529862 597348 058155 103738 470894 969594 639420 282288 681892 698451 569124 061054 300200 195467 048229 965431 939824 291564 665303 806612 842827 502575 604907 691109 328004 173882 904743 841936 884481 372112 188484 896463 926548 203220 470155 459957 143424 820371 692190 920143 729796 065820 774139 710837 841351 475943 323350 906653 365111 266390 215568 742675 559933 299828 725457 523167 767855 271316 604868 298940 471505 320328 500540 335136 652731 375589 653582 517367 (617 digits)

But 'a' is not a prime number ! Let's try to factorize 'a' using another http://www.factordb.com just to use another site.

Result:		
status (?)	digits	number
FF	617 (show)	2820584094...67<617> = 1679459465...03<309> · 1679459465...89<309>

Ok this time the factors are two primes. We have

p = 167945946509710528501147140850136444757936485900233494350920365296618466491038783888459340376962572176658471433672446105042569166930066764067458760954444542315723029727275896055594485064790247910216515269672809063208736956951590237500845779868099616110730494457247861971337900144361732424961936041908032639503

q =
167945946509710528501147140850136444757936485900233494350920365296618466491038783888459340376962572176658471433672446105042569166930066764067458760954444551181379291048040552484392012079612125237961930510490682072102514499883651342766510399652317335461788686135874608722851478273373669551946245262568601067289

Now we can decrypt our message with **solve.py**.