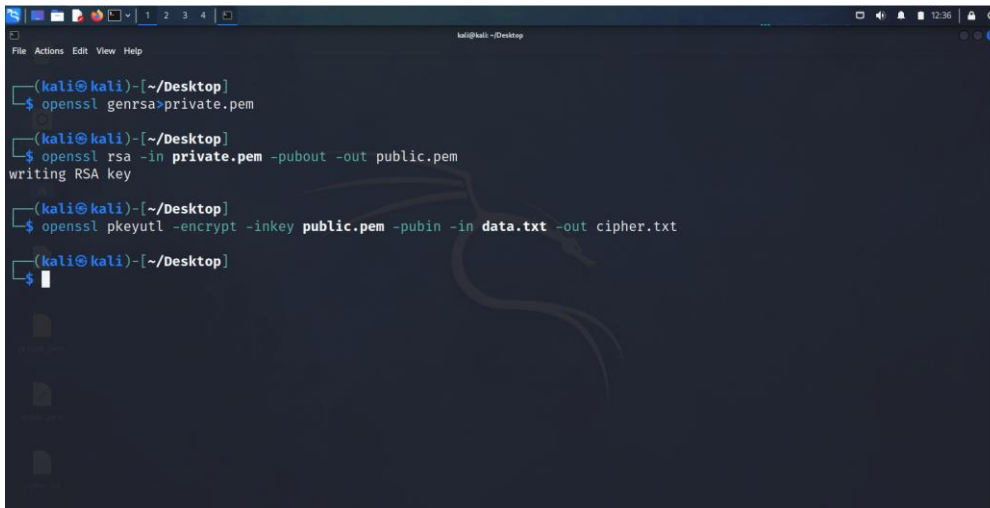


CS MAJOR PROJECT

Step 1: Generate private key and public key and encrypt the data.txt into cipher.txt



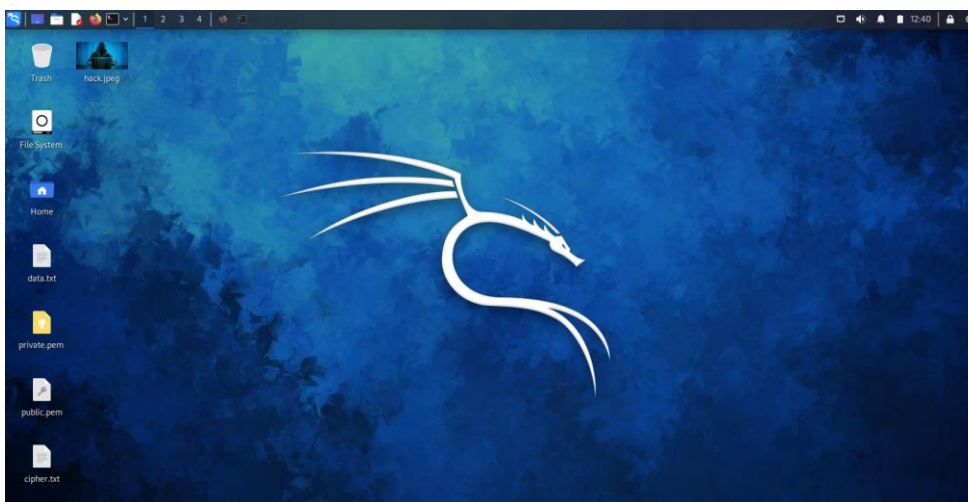
```
(kali@kali)-[~/Desktop]
$ openssl genrsa > private.pem

(kali@kali)-[~/Desktop]
$ openssl rsa -in private.pem -pubout -out public.pem
writing RSA key

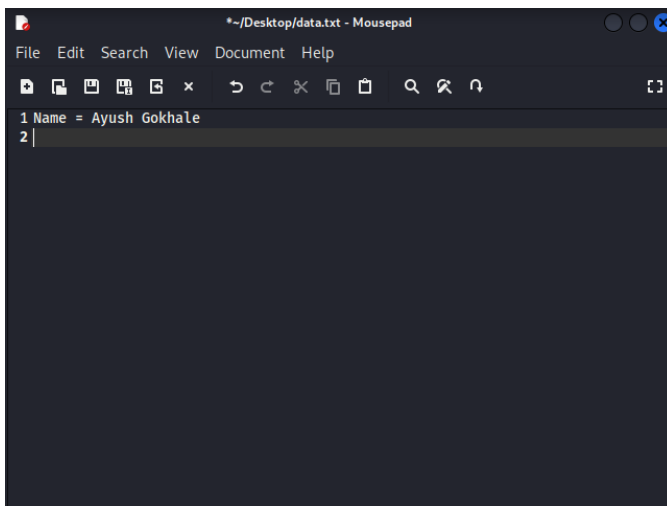
(kali@kali)-[~/Desktop]
$ openssl pkeyutl -encrypt -inkey public.pem -pubin -in data.txt -out cipher.txt

(kali@kali)-[~/Desktop]
$
```

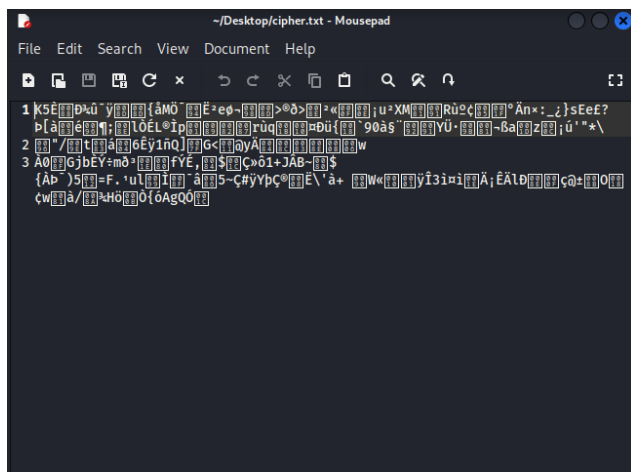
- Desktop with private key, public key, data.txt, cipher.txt and hack.jpeg



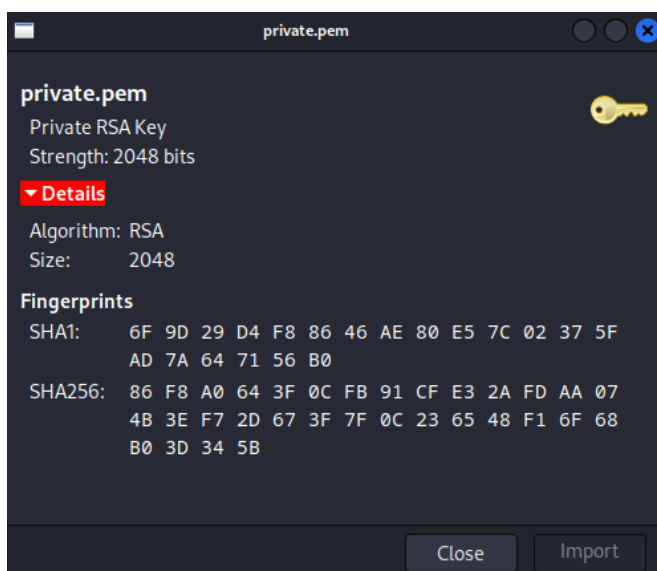
- Data.txt



- CIPHER.txt



- Private.pem



- Public.pem



Step 2: Embed cipher.txt into hack.jpeg

```
kali@kali: ~/Desktop
File Actions Edit View Help

(kali@kali)-[~/Desktop]
$ steghide embed -ef cipher.txt -cf hack.jpeg
Enter passphrase:
Re-Enter passphrase:
embedding "cipher.txt" in "hack.jpeg" ... done

(kali@kali)-[~/Desktop]
$
```

Step 3: extract plain.txt from hack.jpeg and decrypt plain.txt into newdata.txt

```
kali@kali: ~/Desktop
File Actions Edit View Help

(kali@kali)-[~/Desktop]
$ steghide extract -sf hack.jpeg -xf plain.txt
Enter passphrase:
wrote extracted data to "plain.txt".

(kali@kali)-[~/Desktop]
$ openssl pkeyutl -decrypt -inkey private.pem -in plain.txt -out newdata.txt

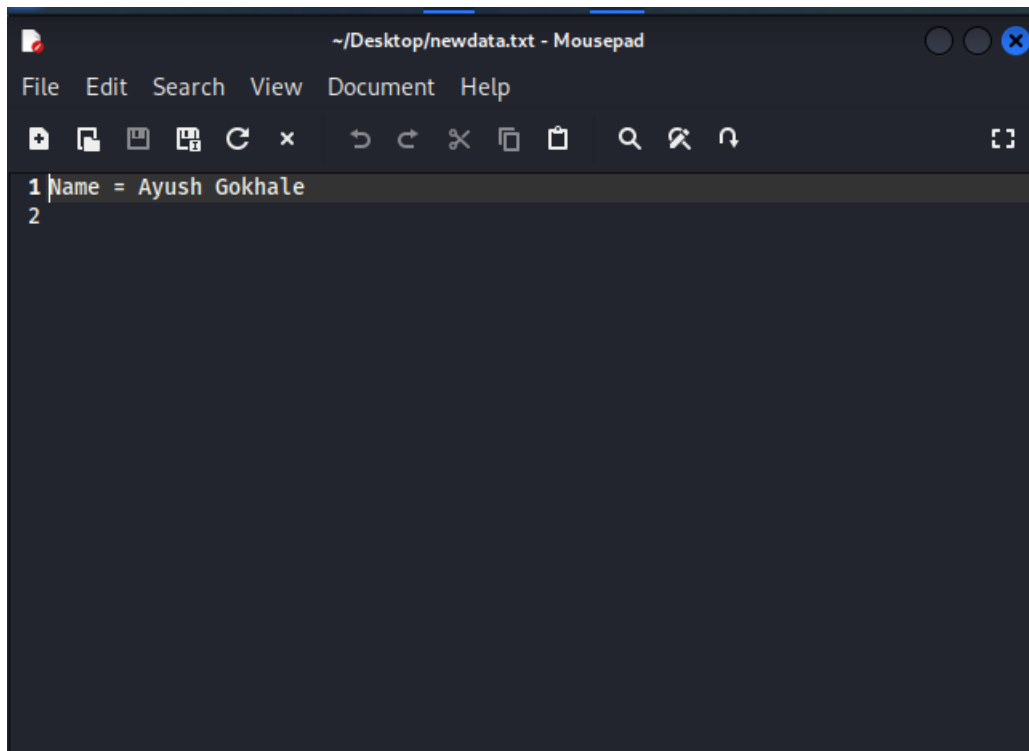
(kali@kali)-[~/Desktop]
$
```

- Plain.txt

```
*~/Desktop/plain.txt - Mousepad
File Edit Search View Document Help

1 K5lo*****{Me.e*****>*****[ ][ ]*u*XM**R***[ ][ ]*n*:_*}sEe*?*[**
  ;*l**L**p[ ][ ]*****[ ][ ]*90.**Y*****a[ ][ ]z[ ][ ]**'"*\
2 *"/ot**[ ][ ]6**1*Q[ ][ ]G<[ ][ ]ayA**[ ][ ]w
3 *0*Gjb**m**[ ][ ]*f**,$[ ][ ]a*1+J*B~*~$
  {*}5[ ][ ]=F.*ul*****5~*~*Y*3[ ][ ]*\'**+**W*[ ][ ][ ]*3**+*[ ][ ]g**+LY[ ][ ]*a**0[ ][ ]*w**/+*H*[ ][ ]
  *{*AgQ*[ ][ ]
```

- Newdata.txt



```
~/Desktop/newdata.txt - Mousepad
File Edit Search View Document Help
+ [New] [Open] [Save] [Save As] [Undo] [Redo] [Cut] [Copy] [Paste] [Find] [Find Next] [Zoom In] [Zoom Out]
1 Name = Ayush Gokhale
2
```