

BUKU PANDUAN ENKRIPSI DAN DEKRIPSI

RSA FILE FOTO / IMAGE

Untuk memulai mengenkripsi dan dekripsi file foto atau image, download source code dibawah ini terlebih dahulu

<https://github.com/kreshna3131/PraktikPemrogramanSKD/tree/main/PERTEMUAN%2016/RSA%20Enkripsi>

setelah mendownload source code yang sudah ada pada link diatas, kita running file enkripsinya.

Yang pertama masukkan nama file yang ingin dienkrpsi pada line 10. Pada disini saya memasukkan nama file saya yang bernama cashback.jpeg dan kemudian kita masukkan nama hasil file yang menjadi tempat hasil enkripsinya pada line 16

The screenshot shows a VS Code editor with a Python file named `encrypt_data.py`. The script performs the following steps:

- Imports `Fernet` from `cryptography` and `rsa`.
- Opens a symmetric key file (`symmetric.key`) and reads its content.
- Creates a `Fernet` cipher object using the symmetric key.
- Opens a file to be encrypted (`cashback.jpeg`) and reads its content.
- Encrypts the file content using the `Fernet` cipher.
- Saves the encrypted data to a new file (`cashbackenkrip.jpeg`).
- Opens a public key file (`publickey.key`) and reads its content.
- Loads the public key using `rsa.PublicKey.load_pkcs1`.
- Encrypts the symmetric key using the public key.
- Saves the encrypted symmetric key to a file (`kunci_enskrripsi.txt`).

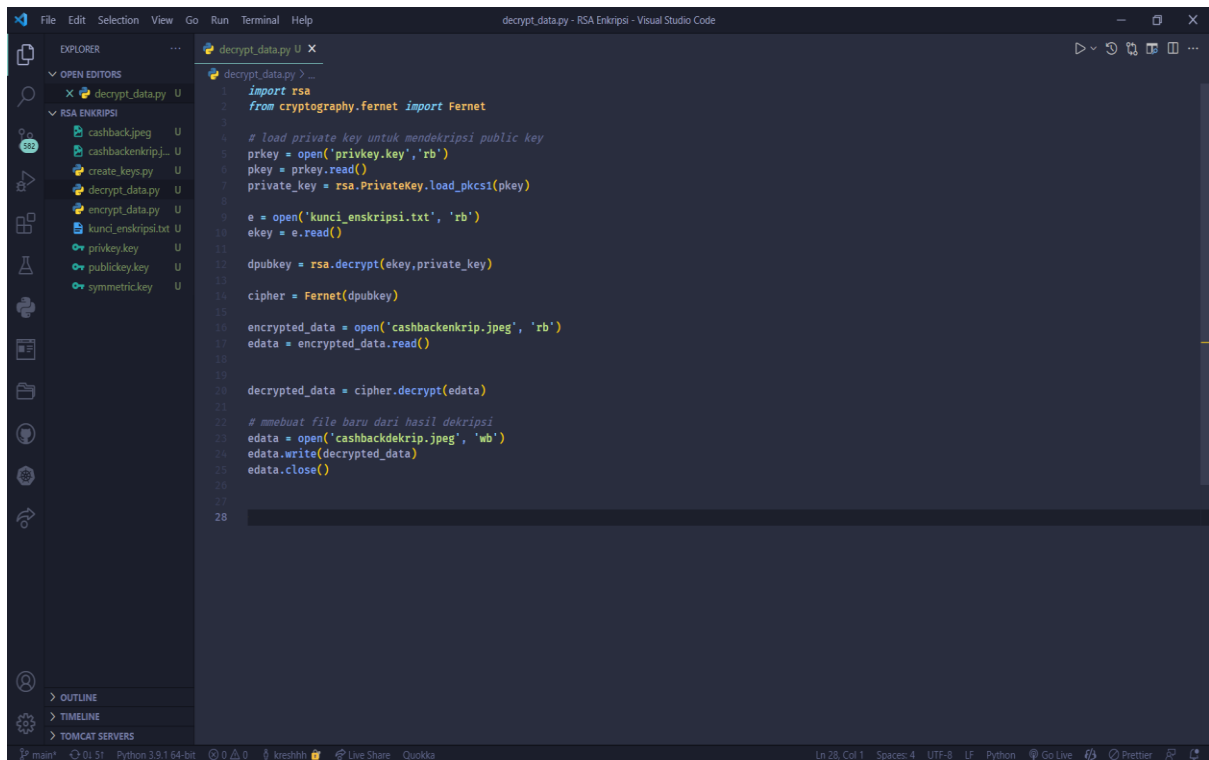
The terminal at the bottom shows the command to run the script:

```
PS C:\Users\KRESHA PUTRA ADI\Documents\1. FOLDER KULIAH\SEMESTER 3\PRAK SKD\PERTEMUAN 16\RSA Enkrripsi>
```

Selanjutnya kita running programnya dan maka hasilnya akan seperti dibawah ini yang dimana terdapat tulisan random dibawah dan juga pada file di samping kiri ada file baru yang bernama cashbackenkrip.jpeg

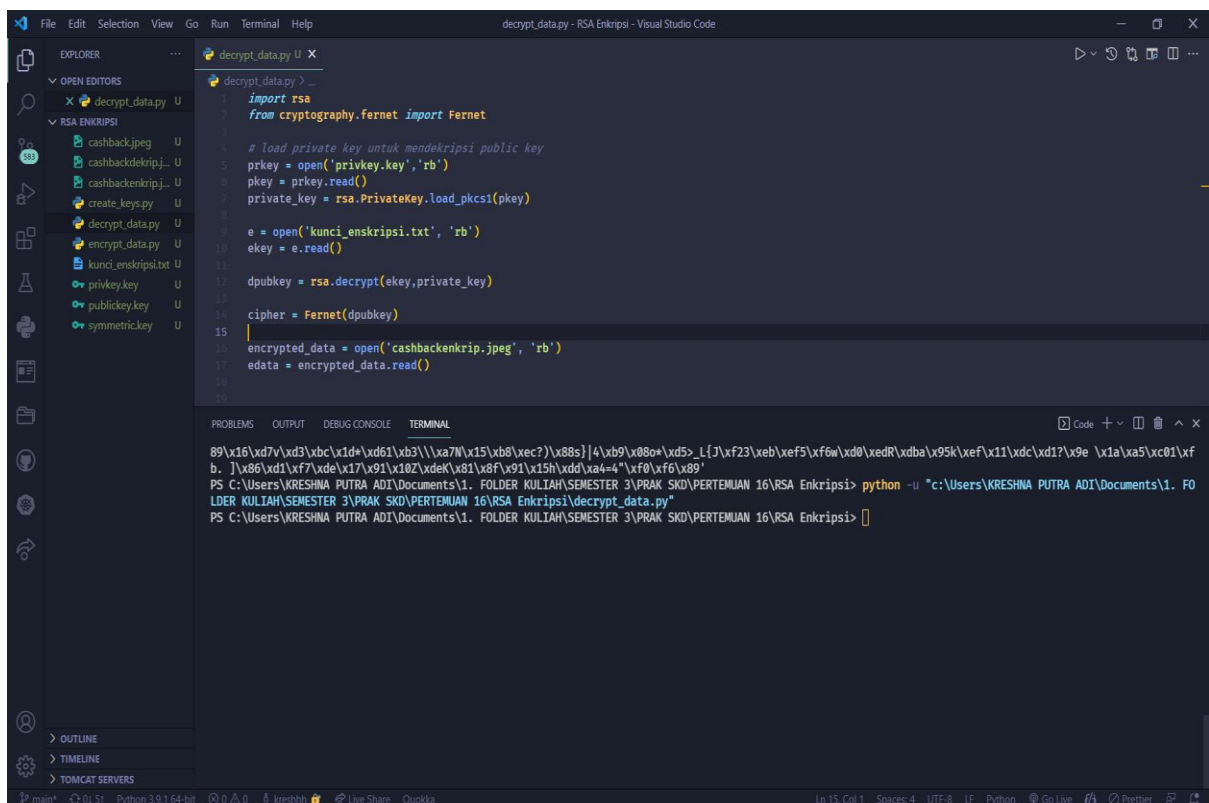
[illegible]

Kemudian kita akan mendekripsi file yang telah kita enkripsi sebelumnya. Yang pertama dilakukan kita buka file yang bernama decrypt_data.py kemudian kita masukkan nama file yang sudah dienkripsi sebelumnya pada line 16. Kemudian pada line 23 kita memasukkan hasil nama file yang sudah di dekripsi kembali. Kemudian kita running



```
1 import rsa
2 from cryptography.fernet import Fernet
3
4 # load private key untuk mendekripsi public key
5 prkey = open('privkey.key', 'rb')
6 pkey = prkey.read()
7 private_key = rsa.PrivateKey.load_pkcs1(pkey)
8
9 e = open('kunci_enskrpsi.txt', 'rb')
10 ekey = e.read()
11
12 dpubkey = rsa.decrypt(ekey, private_key)
13
14 cipher = Fernet(dpubkey)
15
16 encrypted_data = open('cashbackenkrip.jpeg', 'rb')
17 edata = encrypted_data.read()
18
19
20 decrypted_data = cipher.decrypt(edata)
21
22 # mmebuat file baru dari hasil dekripsi
23 edata = open('cashbackdekrip.jpeg', 'wb')
24 edata.write(decrypted_data)
25 edata.close()
26
27
28
```

Dan dibawah ini adalah hasilnya yang dimana pada saat dijalankan maka akan terjadi dan terdapat file baru yang bernama cashbackdekrip.jpeg



```
1 import rsa
2 from cryptography.fernet import Fernet
3
4 # load private key untuk mendekripsi public key
5 prkey = open('privkey.key', 'rb')
6 pkey = prkey.read()
7 private_key = rsa.PrivateKey.load_pkcs1(pkey)
8
9 e = open('kunci_enskrpsi.txt', 'rb')
10 ekey = e.read()
11
12 dpubkey = rsa.decrypt(ekey, private_key)
13
14 cipher = Fernet(dpubkey)
15
16 encrypted_data = open('cashbackenkrip.jpeg', 'rb')
17 edata = encrypted_data.read()
18
19
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
89\x16\xd7\xdc\xbc\x1d*\xd61\xb3\\xa7W\x15\xb8\xec?)\x88s}|4\xb9\x08o*\xd5>_l{J\xf23\xeb\xef5\xf6w\xd0\xedR\xdba\x95k\xef\x11\xdc\xd1?x9e \x1a\xa5\x01\xf
b. ]\x86\xd1\xf7\xde\x17\x91\x102\xdeK\x81\x8f\x91\x15h\xdd\xa4=4"\xf0\xf6\xa89"
PS C:\Users\KRESHNA PUTRA ADI\Documents\1. FOLDER KULIAH\SEMESTER 3\PRAK SKD\PERTEMUAN 16\RSA Enkrpsi> python -u "c:\Users\KRESHNA PUTRA ADI\Documents\1. F
LDER KULIAH\SEMESTER 3\PRAK SKD\PERTEMUAN 16\RSA Enkrpsi\decrypt_data.py"
PS C:\Users\KRESHNA PUTRA ADI\Documents\1. FOLDER KULIAH\SEMESTER 3\PRAK SKD\PERTEMUAN 16\RSA Enkrpsi>
```

```
File Edit Selection View Go Run Terminal Help
csharpbackrip.jpeg - RSA Encryption - Visual Studio Code

EXPLORER
csharpbackrip.jpeg x
OPEN EDITORS
csharpbackrip.jpeg 1
RSA ENCRYPTION
csharpbackrip.jpeg
csharpbackrip.jpeg
csharpbackrip.jpeg
create_keys.py
decrypt_data.py
encrypt_data.py
kunt_enkripsi.txt
privatekey.py
publickey.py
symmetrickey.py

1 1AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
2 2AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
3 3AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
4 4AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
5 5AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
6 6AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
7 7AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
8 8AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
9 9AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
10 10AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
11 11AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
12 12AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
13 13AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
14 14AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
15 15AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
16 16AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
17 17AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
18 18AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
19 19AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
20 20AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
21 21AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
22 22AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
23 23AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
24 24AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
25 25AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
26 26AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
27 27AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
28 28AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
29 29AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
30 30AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
31 31AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
32 32AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
33 33AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkvG7eRac6GvHjsh-hdEEN
34 34AAAAAAHbfPEEbaI8ewQnY_K5Gevqz2t3MwAVra05tP83rUv1Wm_Z2p2tYKvUDIK3Ggnr_EKngs7t0XKr1n5m5276QvEVLm177p3aLgX3p5L0tAcnkv
```

