AMINA QADEER

CE-42-A

359607

DATABASE LAB 02

TASK:

CODE:

```python
`# import required module
from cryptography.fernet import Fernet

# generating a key and saving it
# key generation
key = Fernet.generate_key()

# storing the key in a file
with open("file-key.key", "wb") as file_key:
    file_key.write(key)

# Above code will generate a file with the name file-key.key.
# The file will contain one line, which is a string acting as a key i.e.
# opening the key
with open("file-key.key", "rb") as file_key:
    key = file_key.read()

# using the generated key
fernet = Fernet(key)

# getting input from user
input_data = input("Enter the data to encrypt: ").encode()
```

```python
# encrypting the input data
encrypted = fernet.encrypt(input_data)


# writing the encrypted data to a file
with open("encrypted.txt", "wb") as encrypted_file:
    encrypted_file.write(encrypted)


# decrypting the data from the file
with open("encrypted.txt", "rb") as encrypted_file:
    encrypted = encrypted_file.read()
    decrypted = fernet.decrypt(encrypted)


# writing the decrypted data to a separate file
with open("decrypted.txt", "wb") as decrypted_file:
    decrypted_file.write(decrypted)
```
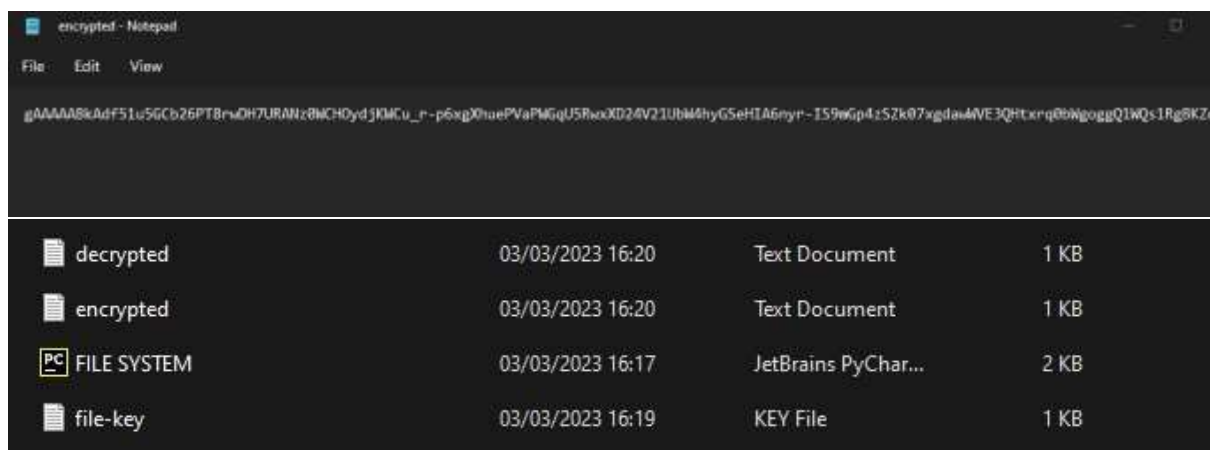
OUTPUTS:

Run: FILE SYSTEM

```
"C:\Users\Amina Qadeer\PycharmProjects\pythonProject\venv\Scripts\python.exe
Enter the data to encrypt: AMINA QADEER 359607 aminaqadeer402@gmail.com
```

nba - Notepad

File   Edit   View

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decrypted - Notepad

File   Edit   View

```
AMINA QADEER 359607 aminaqadeer402@gmail.com
```

nba - Notepad

File   Edit   View

```
Name,Team,Number,Position,Age,Height,Weight,College,Salary
Avery Bradley,Boston Celtics,0.0,PG,25.0,6-2,180.0,Texas,7730337.0
Jae Crowder,Boston Celtics,99.0,SF,25.0,6-6,235.0,Marquette,6796117.0
John Holland,Boston Celtics,30.0,SG,27.0,6-5,205.0,Boston University,
R.J. Hunter,Boston Celtics,28.0,SG,22.0,6-5,185.0,Georgia State,1148640.0
Jonas Jerebko,Boston Celtics,8.0,PF,29.0,6-10,231.0,,5000000.0
Amir Johnson,Boston Celtics,90.0,PF,29.0,6-9,240.0,,12000000.0
Jordan Mickey,Boston Celtics,55.0,PF,21.0,6-8,235.0,LSU,1170960.0
Kelly Olynyk,Boston Celtics,41.0,C,25.0,7-0,238.0,Gonzaga,2165160.0
Terry Rozier,Boston Celtics,12.0,PG,22.0,6-2,190.0,Louisville,1824360.0
Marcus Smart,Boston Celtics,36.0,PG,22.0,6-4,220.0,Oklahoma State,3431040.0
Jared Sullinger,Boston Celtics,7.0,C,24.0,6-9,260.0,Ohio State,2569260.0
Isaiah Thomas,Boston Celtics,4.0,PG,27.0,5-9,185.0,Washington,6912869.0
Evan Turner,Boston Celtics,11.0,SG,27.0,6-7,220.0,Ohio State,3425510.0
James Young,Boston Celtics,13.0,SG,20.0,6-6,215.0,Kentucky,1749840.0
```

Ln 1, Col 1

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Amina Qadeer 359607 CE-42-A- Ceme Nust

THE END