

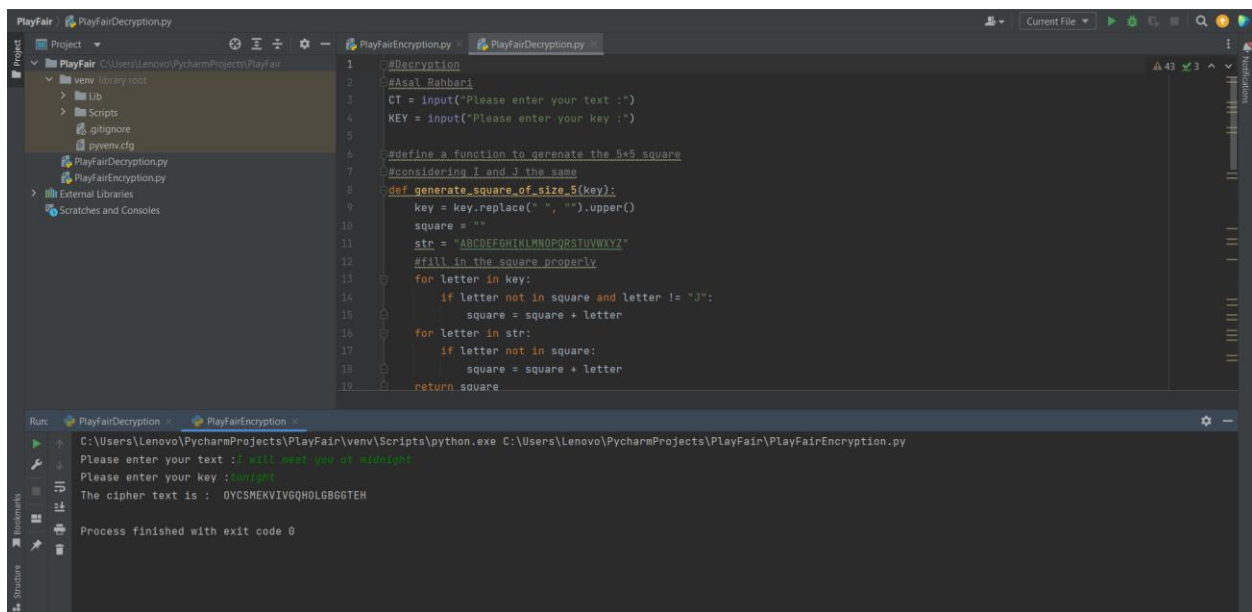
# Play Fair Cipher – Asal Rahnari

99222044

Encryption :

Plain Text : I will meet you at midnight

Key : tonight



```
1 #Decryption
2 #Asal_Rahnari
3 CT = input("Please enter your text :)")
4 KEY = input("Please enter your key :)")
5
6 #define a function to generate the 5x5 square
7 #considering I and J the same
8 def generate_square_of_size_5(key):
9     key = key.replace(" ", "").upper()
10    square = ""
11    str = "ABCDEFGHIKLMNOPQRSTUVWXYZ"
12    #fill in the square properly
13    for letter in key:
14        if letter not in square and letter != "J":
15            square = square + letter
16    for letter in str:
17        if letter not in square:
18            square = square + letter
19    return square
```

Run: PlayFairDecryption x PlayFairEncryption x

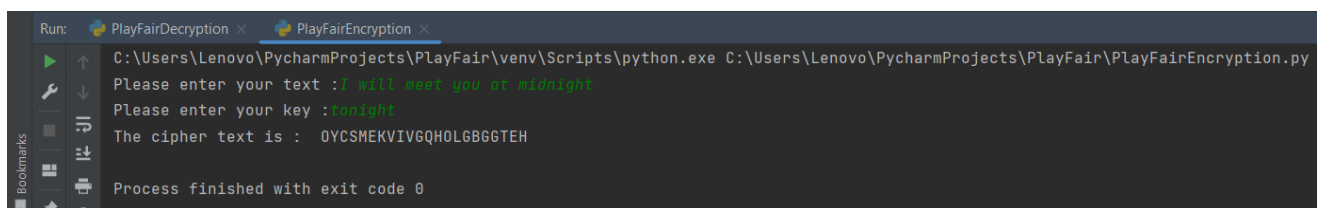
C:\Users\Lenovo\PycharmProjects\PlayFair\venv\Scripts\python.exe C:\Users\Lenovo\PycharmProjects\PlayFair\PlayFairEncryption.py

Please enter your text : I will meet you at midnight

Please enter your key : tonight

The cipher text is : OYCSMEKVIVGQHOLGBGGTEH

Process finished with exit code 0



Run: PlayFairDecryption x PlayFairEncryption x

C:\Users\Lenovo\PycharmProjects\PlayFair\venv\Scripts\python.exe C:\Users\Lenovo\PycharmProjects\PlayFair\PlayFairEncryption.py

Please enter your text : I will meet you at midnight

Please enter your key : tonight

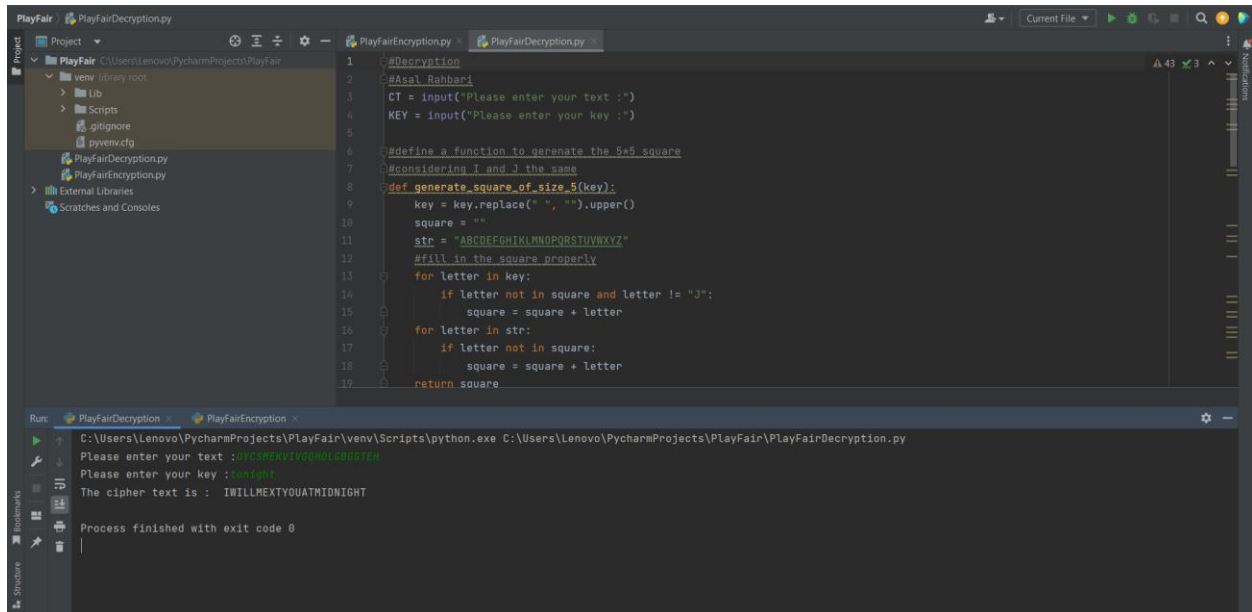
The cipher text is : OYCSMEKVIVGQHOLGBGGTEH

Process finished with exit code 0

Decryption :

Cipher Text : OYCSMEKVIVGQHOLGBGGTEH

Key : tonight

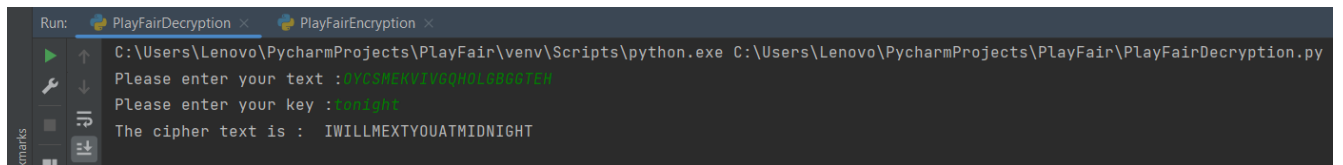


The screenshot shows the PyCharm IDE with a project named 'PlayFair'. The file 'PlayFairDecryption.py' is open, displaying the following Python code:

```
1 #Decryption
2 #Asal_Rahbari
3 CT = input("Please enter your text :")
4 KEY = input("Please enter your key :")
5
6 #define a function to generate the 5x5 square
7 #considering I and J the same
8 def generate_square_of_size_5(key):
9     key = key.replace(" ", "").upper()
10    square = ""
11    str = "ABCDEFGHIKLMNOPQRSTUVWXYZ"
12    #fill in the square properly
13    for letter in key:
14        if letter not in square and letter != "J":
15            square = square + letter
16    for letter in str:
17        if letter not in square:
18            square = square + letter
19    return square
```

The Run console at the bottom shows the execution of the script:

```
Run: PlayFairDecryption
C:\Users\Lenovo\PycharmProjects\PlayFair\venv\Scripts\python.exe C:\Users\Lenovo\PycharmProjects\PlayFair\PlayFairDecryption.py
Please enter your text :OYCSMEKVIVGQHOLGBGGTEH
Please enter your key :tonight
The cipher text is : IWILLMEXTYOUATMIDNIGHT
Process finished with exit code 0
```



This screenshot shows a close-up of the Run console in PyCharm, displaying the output of the decryption script:

```
Run: PlayFairDecryption
C:\Users\Lenovo\PycharmProjects\PlayFair\venv\Scripts\python.exe C:\Users\Lenovo\PycharmProjects\PlayFair\PlayFairDecryption.py
Please enter your text :OYCSMEKVIVGQHOLGBGGTEH
Please enter your key :tonight
The cipher text is : IWILLMEXTYOUATMIDNIGHT
```