TEINSTEIN EDUCATION CODING ASSESMENT
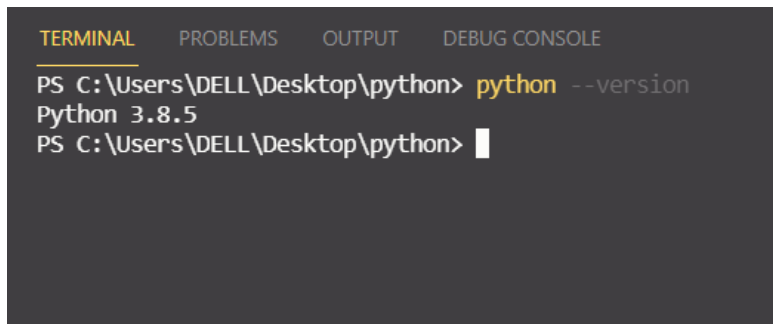
The work assessment is done in the python version **3.8.5**

Visit the link for the task

https://github.com/nanditadutta/Teinstein-Education

3. Create a cryptography method of your own using python.

Solution:

 # function for the cryptographic message

```
def machine():
```

 # String of keys   creation

```
    keys ="abcdefghijklmnopqrstuvwxyz !"
```

 # String of Values creation

```
    values = keys[-1] + keys[0:-1]
```

 # dictionary for encryption

```
    encryptDict = dict(zip(keys,values))
```

 # dictionary for decryption

```
    decryptDict = dict(zip(values,keys))
```

 # user input

```
    message = input("Please enter the secert message")
```

#Mode selection for the user

```
mode = input("Please enter the mode: Encode(E) OR
Decode(D)  ")
```

#If the user entered the small e it will be converted to uppercase E and operate the program further
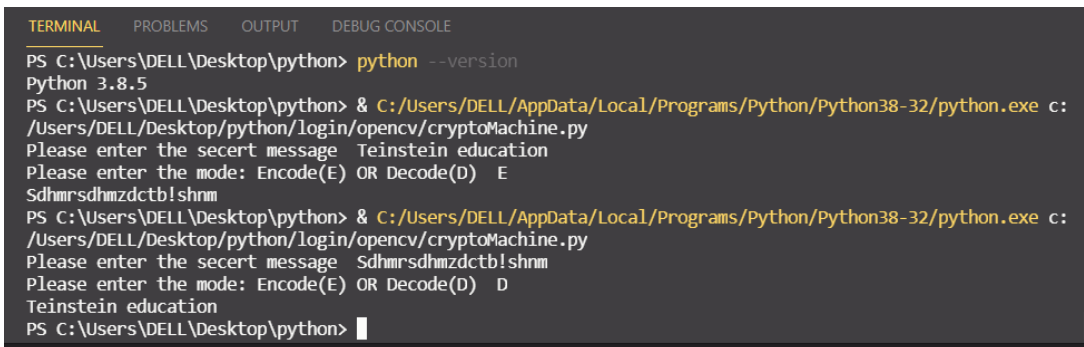
```
if mode.upper()  =='E':.
    newMessage = ''.join([encryptDict[letter] for
letter in message.lower()])# for fetching key and its
values respectively.
    elif mode.upper()== 'D':
        newMessage = ''.join([decryptDict[letter] for
letter in message.lower()])
    else:
        print("please enter a correct choice")
```

 # Captialize the first letter of the message.

```
    return newMessage.capitalize()
```

 # calling of the function

```
print(machine())
```

```
TERMINAL    PROBLEMS    OUTPUT    DEBUG CONSOLE
PS C:\Users\DELL\Desktop\python> python --version
Python 3.8.5
PS C:\Users\DELL\Desktop\python> & C:/Users/DELL/AppData/Local/Programs/Python/Python38-32/python.exe c:
/Users/DELL/Desktop/python/login/opencv/cryptoMachine.py
Please enter the secert message  Teinstein education
Please enter the mode: Encode(E) OR Decode(D)  E
Sdhmrsdhmzdctb!shnm
PS C:\Users\DELL\Desktop\python> & C:/Users/DELL/AppData/Local/Programs/Python/Python38-32/python.exe c:
/Users/DELL/Desktop/python/login/opencv/cryptoMachine.py
Please enter the secert message  Sdhmrsdhmzdctb!shnm
Please enter the mode: Encode(E) OR Decode(D)  D
Teinstein education
PS C:\Users\DELL\Desktop\python>
```

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