

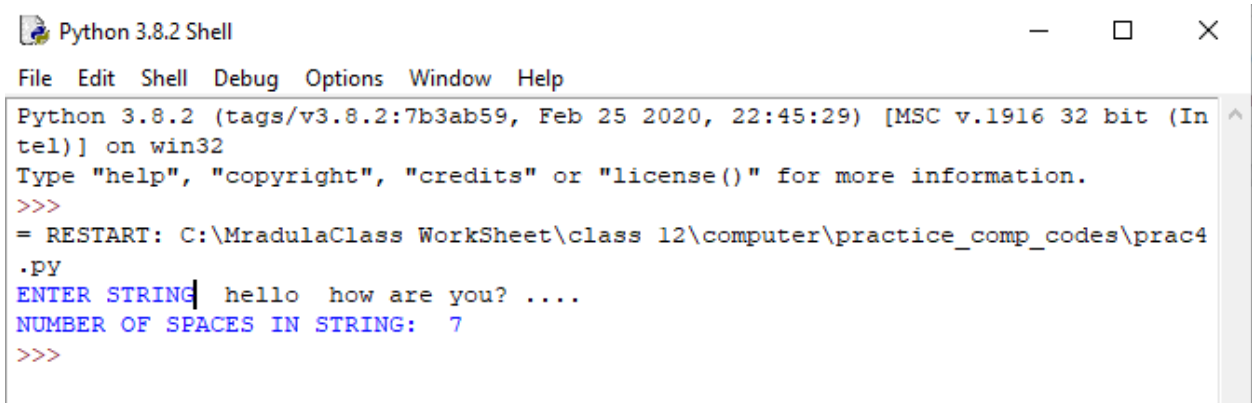
STRINGS

1. WAP to obtain a string and then calculate the spaces.

```
s=input("ENTER STRING")
c=0
for i in s:
    if i==' ':
        c+=1
print("NUMBER OF SPACES IN STRING: ",c)
```

OR

```
s=input("ENTER STRING")
c=0
for i in s:
    if i.isspace():
        c+=1
print("NUMBER OF SPACES IN STRING: ",c)
```



The screenshot shows a Python 3.8.2 Shell window with the following content:

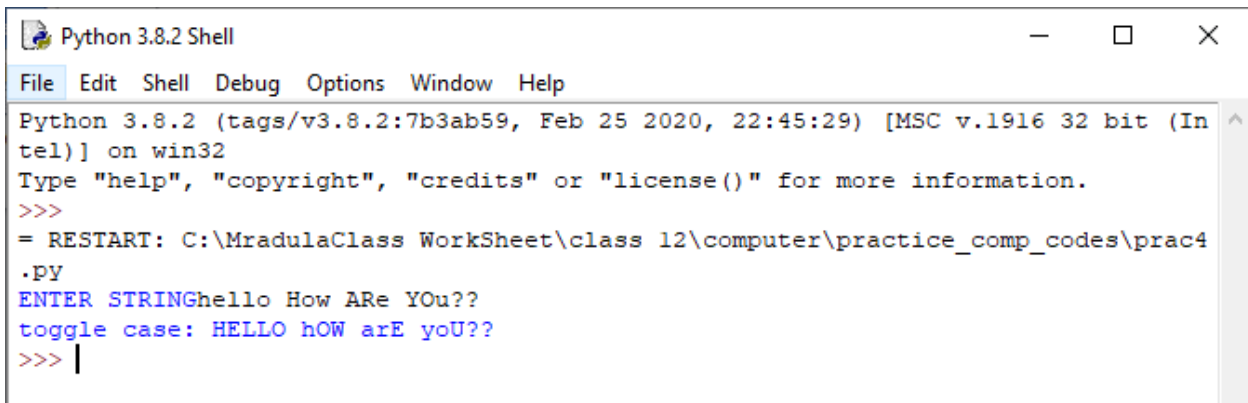
```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
ENTER STRING| hello  how are you? ....
NUMBER OF SPACES IN STRING:  7
>>>
```

2. WAP to obtain a string and then convert the string to toggle case.

```
s=input("ENTER STRING")
swap=s.swapcase()
print("toggle case:",swap)
```

OR

```
s=input("ENTER STRING")
t=""
for i in s:
    if i.islower():
        t+=i.upper()
    elif i.isupper():
        t+=i.lower()
    else:
        t+=i
print("toggle case:",t)
```

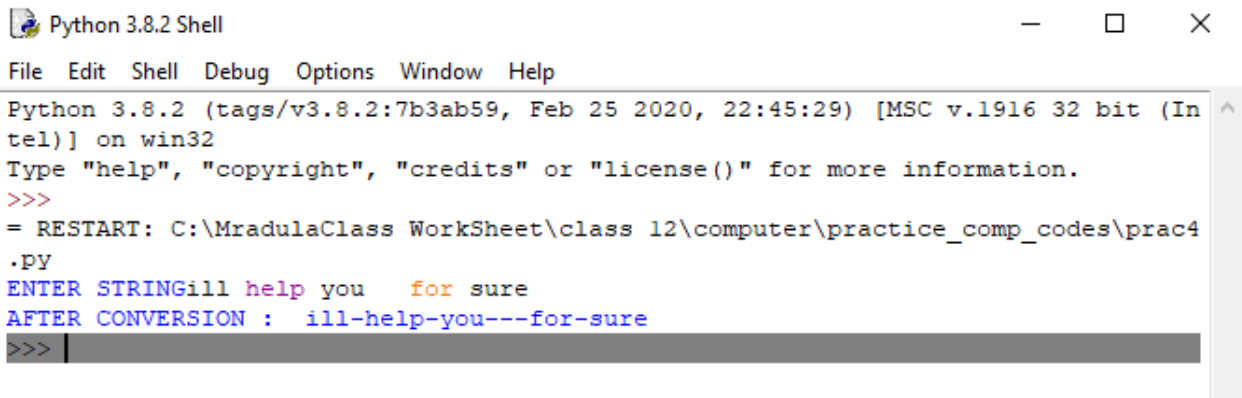


The screenshot shows a Python 3.8.2 Shell window with the following content:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
ENTER STRINGhello How ARE YOu??
toggle case: HELLO hOW arE yoU??
>>> |
```

3. WAP to obtain a string and then replace every space with a hyphen.

```
s=input("ENTER STRING")
a=""
for i in s:
    if i.isspace():
        a+='-'
    else:
        a+=i
print("AFTER CONVERSION : ",a)
```

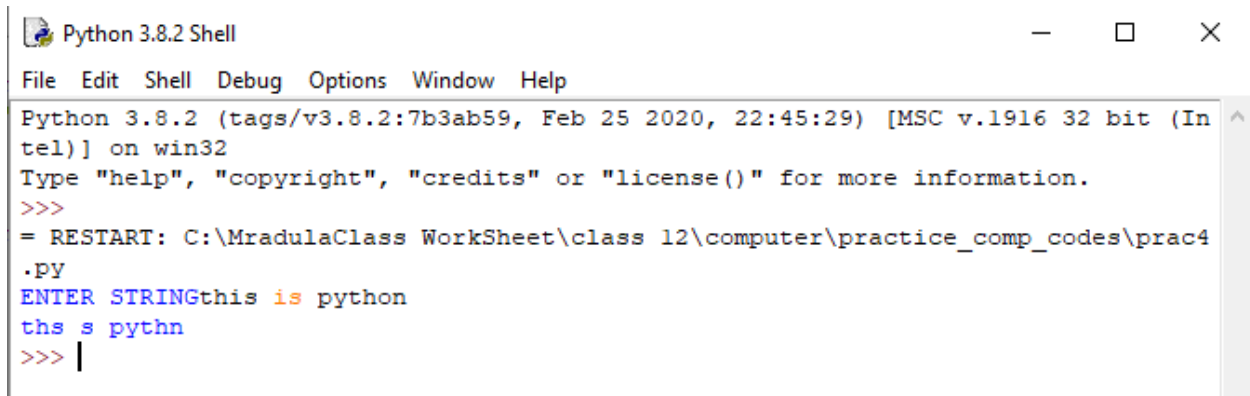


The screenshot shows a Python 3.8.2 Shell window with the following content:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
ENTER STRINGill help you for sure
AFTER CONVERSION : ill-help-you---for-sure
>>>
```

4. WAP to obtain a string and then create another string without having vowels.

```
s=input("ENTER STRING")
a=""
for i in s:
    if i not in 'aeiouAEIOU':
        a+=i
print(a)
```

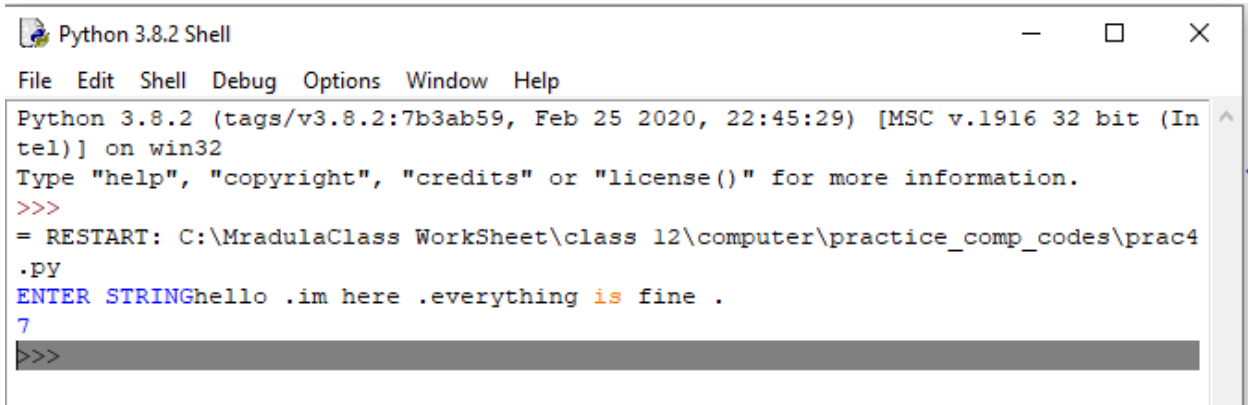


The screenshot shows a Python 3.8.2 Shell window with the following content:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
ENTER STRINGthis is python
ths s pythn
>>> |
```

5. WAP to obtain a string and then count how many times a substring occurs.

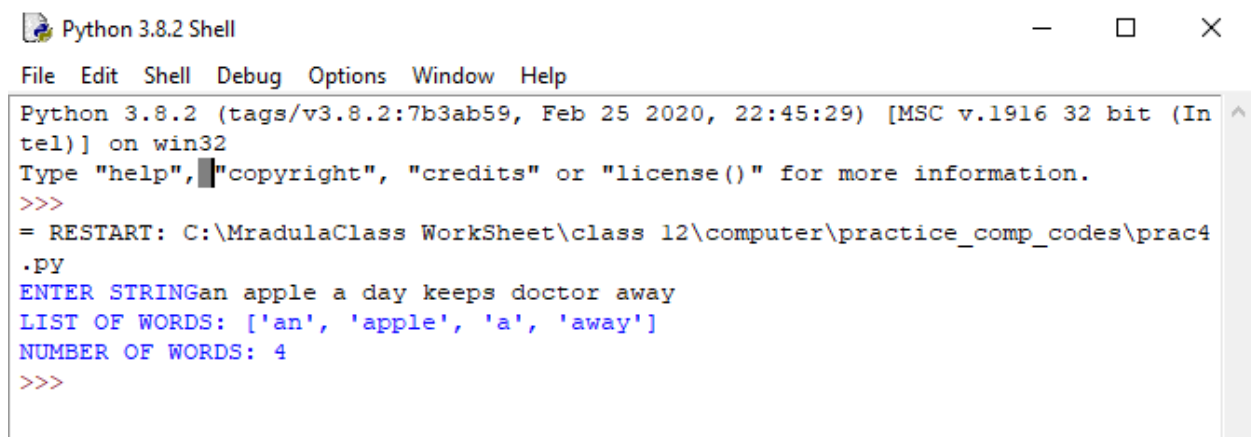
```
s=input("ENTER STRING")
s=s.split()
a=len(s)
print(a)
```

A screenshot of a Python 3.8.2 Shell window. The window title is "Python 3.8.2 Shell". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area shows the following output:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
ENTER STRINGhello .im here .everything is fine .
7
>>>
```

6. WAP to obtain a string and then count the number of words starting with a vowel and also display those words.

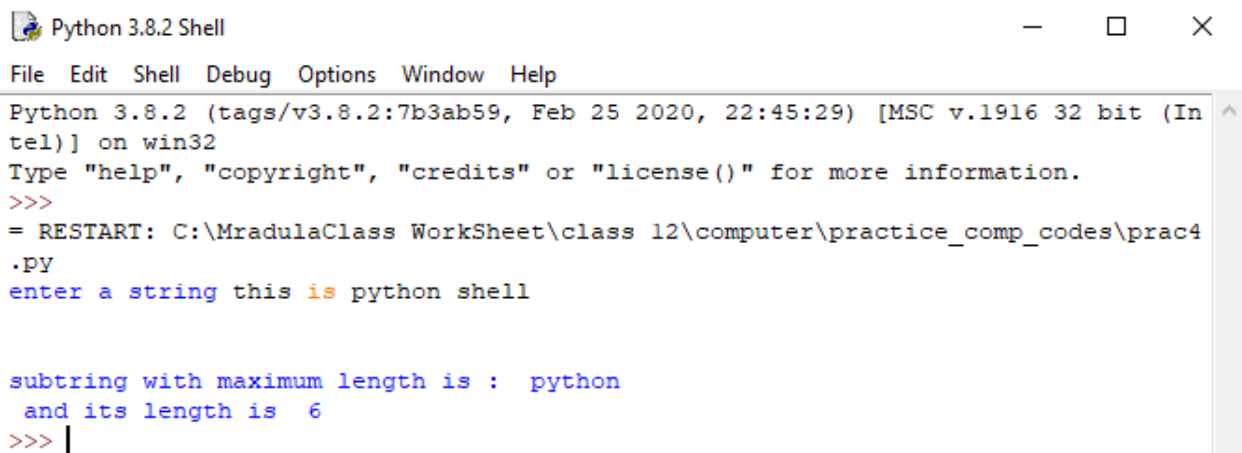
```
s=input("ENTER STRING")
s=s.split()
l=[]
c=0
for i in s:
    if i[0] in 'aeiouAEIOU':
        l+=[i]
        c+=1
print("LIST OF WORDS:",l,"\nNUMBER OF WORDS:",c)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
ENTER STRINGan apple a day keeps doctor away
LIST OF WORDS: ['an', 'apple', 'a', 'away']
NUMBER OF WORDS: 4
>>>
```

7. WAP to obtain a string and then display the longest substring.

```
s=input("enter a string ")
l=s.split()
mx=0
k=0
mxword=""
for i in l:
    k=len(i)
    if k>mx and i.isalpha()==True:
        mxword=i
        mx=k
        print()
print("subtring with maximum length is : ",mxword)
print(" and its length is ",mx)
```

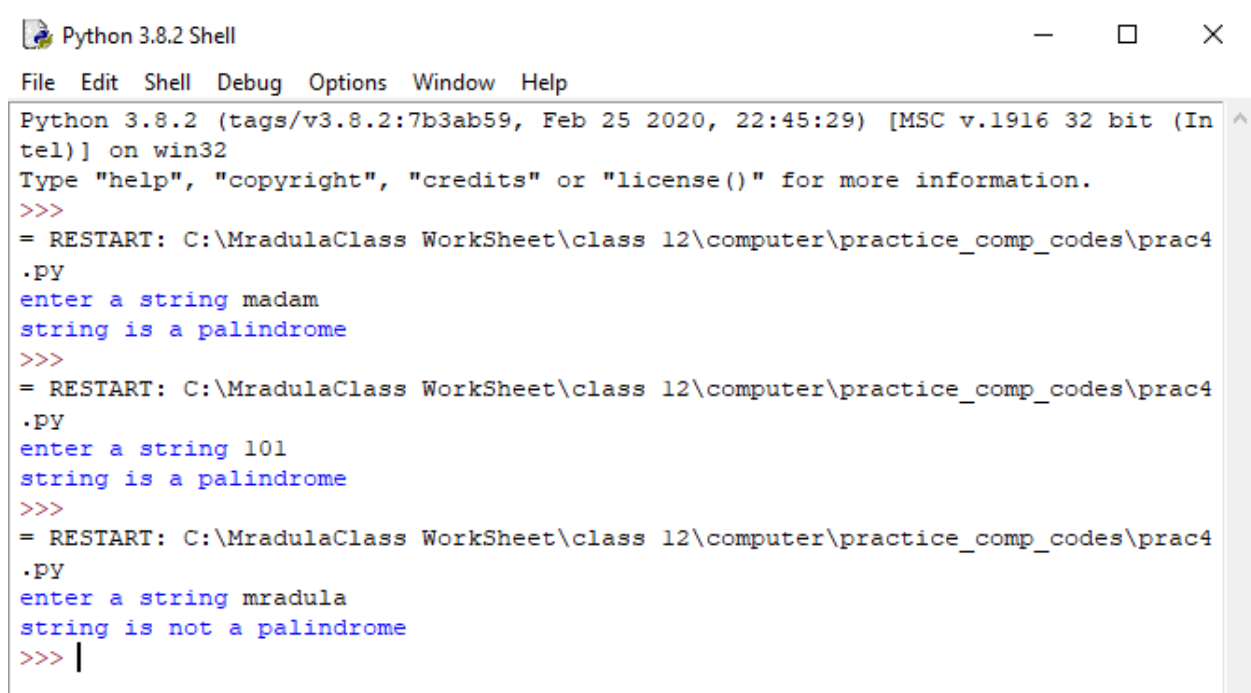


```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
enter a string this is python shell

subtring with maximum length is : python
and its length is 6
>>> |
```

8. WAP to obtain a string and then check whether it is a palindrome or not.

```
s=input("enter a string ")
l=len(s)
j=l-1
f=True
for i in range(0,l//2):
    if s[i]!=s[j]:
        f=False
        break
    j=j-1
if f==True:
    print("string is a palindrome ")
else:
    print("string is not a palindrome")
```

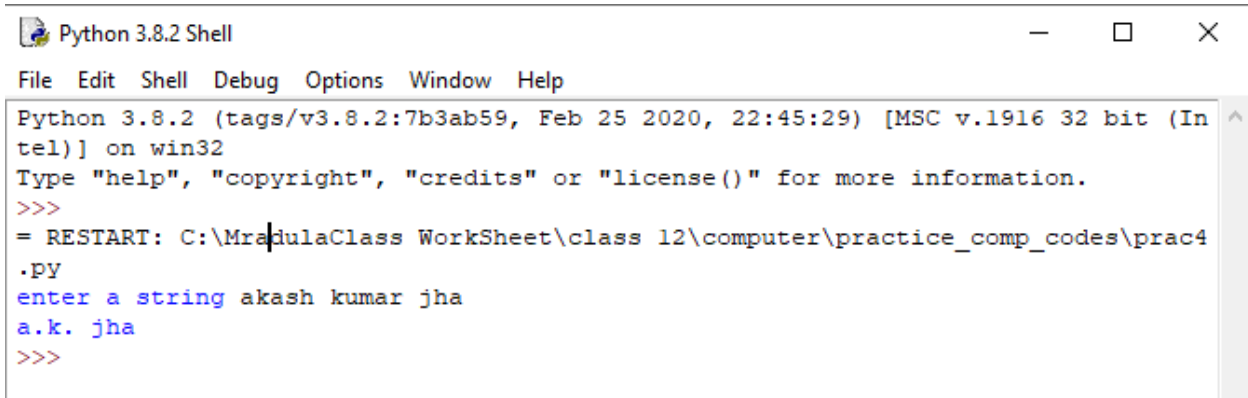


The screenshot shows a Python 3.8.2 Shell window with the following content:

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
enter a string madam
string is a palindrome
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
enter a string 101
string is a palindrome
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
enter a string mradula
string is not a palindrome
>>> |
```


9. WAP to obtain a string containing three words representing full name and then display their short name.

```
s=input("enter a string ")
r=s.split()
f=r[0][0]
sc=r[1][0]
ls=r[2]
name= f+"."+sc+ "." +ls
print(name)
```

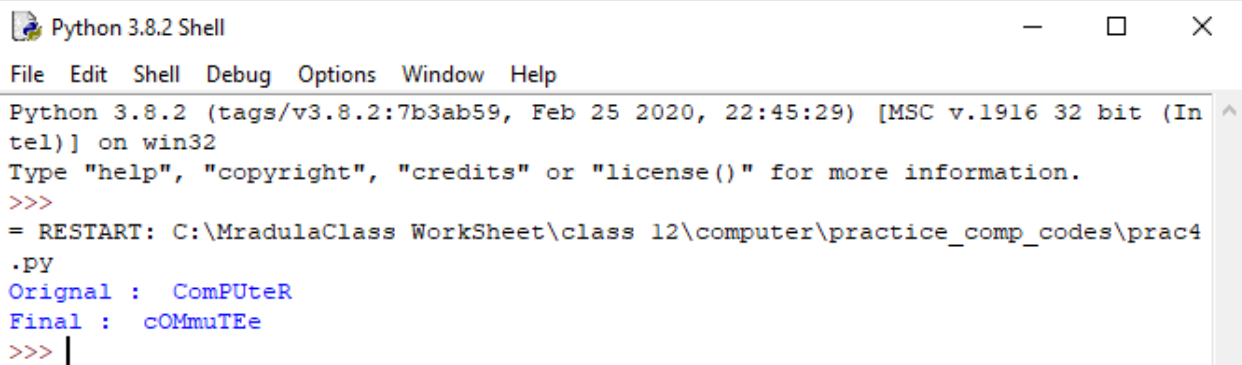


The screenshot shows a Python 3.8.2 Shell window with the following content:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
enter a string akash kumar jha
a.k. jha
>>>
```

10. Predict the output:

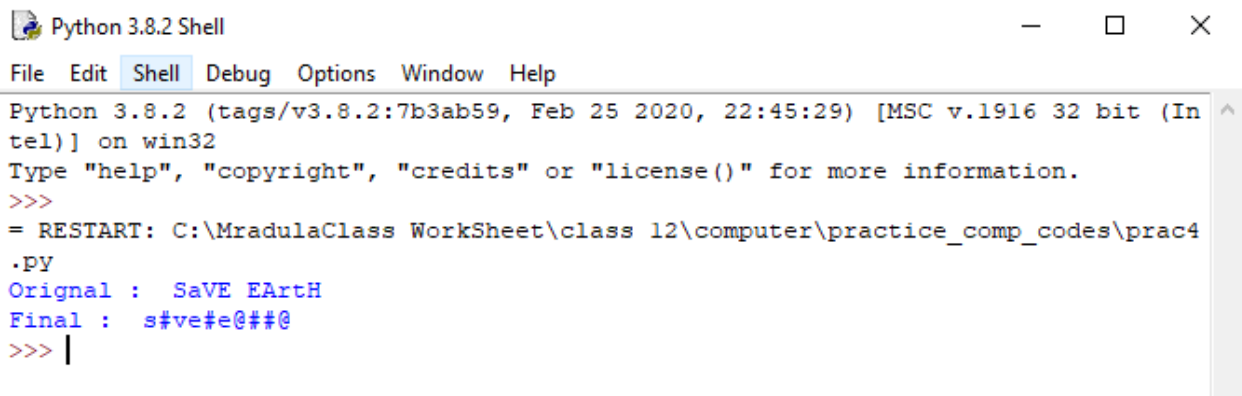
```
N="ComPUteR";
l=len(N)
r=""
print("Original : ",N)
for x in range(l):
    if N[x].islower():
        r+=N[x].upper()
    else:
        if N[x].isupper():
            if x%2==0:
                r+=N[x].lower()
            else:
                r+=N[x-1]
print("Final : ",r)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
Original : ComPUteR
Final : cOMmuTEe
>>> |
```

11. Predict the output:

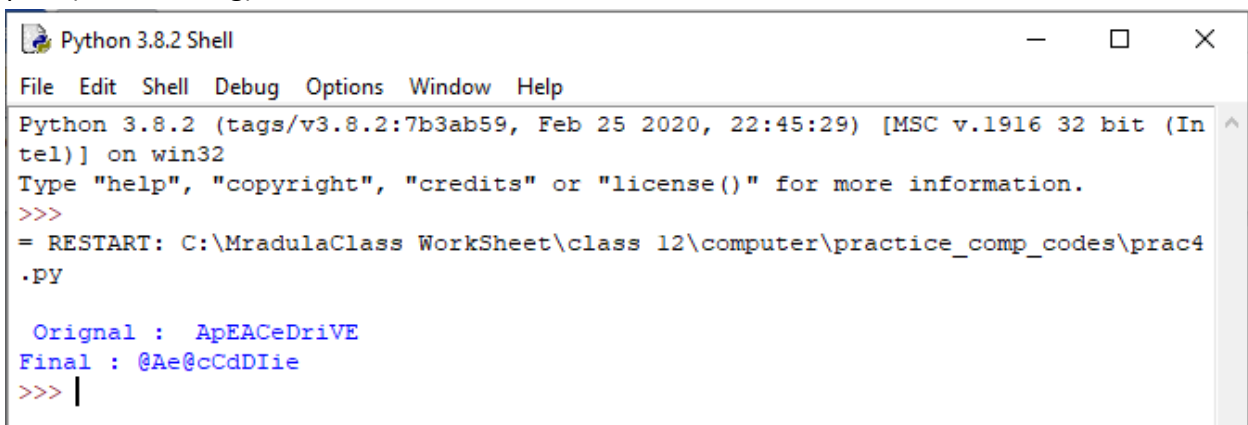
```
T="SaVE EArth";
l=len(T)
r=""
print("Original : ",T)
for i in range(l):
    if (T[i]=='A' or T[i]=='H'):
        r+='@'
    elif T[i].isupper():
        r+=T[i].lower();
    else:
        r+#'
print("Final : ",r)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
Original :  SaVE EArth
Final :  s#ve#e@##@
>>> |
```

12. Predict the output:

```
MyText="ApEACeDriVE"
ch="@ "
l=len(MyText)
Msg=""
print("\n Orignal : ",MyText)
for cnt in range (l):
    if MyText[cnt]>='B' and MyText[cnt]<='G':
        Msg+=MyText[cnt].lower()
    elif MyText[cnt]=='A' or MyText[cnt]=='a':
        Msg+=ch;
    else:
        if(cnt%2==0):
            Msg+=MyText[cnt].upper()
        else:
            Msg+=MyText[cnt-1]
print("Final :",Msg)
```

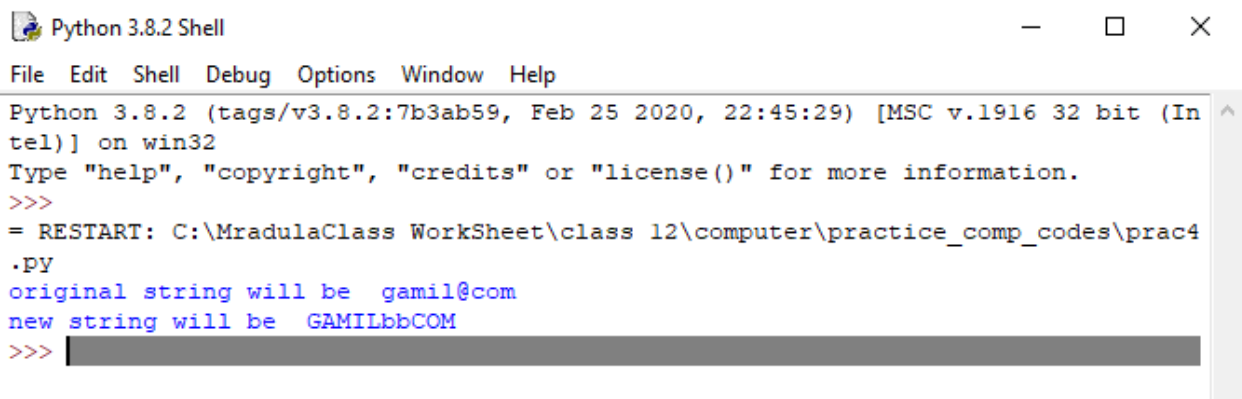


```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY

Original : ApEACeDriVE
Final : @Ae@cCdDIe
>>> |
```

13. Predict the output:

```
s="gamil@com"
l=len(s)
mr=""
print("original string will be ",s)
for i in range(0,l):
    if s[i].isupper():
        mr=mr+s[i].lower()
    elif s[i].isalpha():
        mr=mr+s[i].upper()
    else:
        mr=mr+"bb"
print("new string will be ",mr)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
original string will be  gamil@com
new string will be  GAMILbbCOM
>>>
```

14. What will be the output if the input is

1) aabbcc

2) aaccbb

3) abcc

```
s=input("enter a string ")
```

```
count=3
```

```
while True:
```

```
    if s[0]=='a':
```

```
        s=s[2:]
```

```
    elif s[-1]=='b':
```

```
        s=s[:2]
```

```
    else:
```

```
        count = count+1
```

```
        break
```

```
print(s)
```

```
print(count)
```

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4.PY

enter a string aabbcc

bbcc

4

>>>

= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4.PY

enter a string aaccbb

cc

4

>>>

= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4.PY

enter a string abcc

cc

4

15. What will be the output if the input is

- 1) 1bzz
- 2) 1a
- 3) 0xy

```
s=input("enter a string ")
```

```
while len(s)<=4:
```

```
    if s[-1]=='z':
```

```
        s=s[0:3]+'c'
```

```
    elif 'a' in s:
```

```
        s=s[0]+'bb'
```

```
    elif not int(s[0]):
```

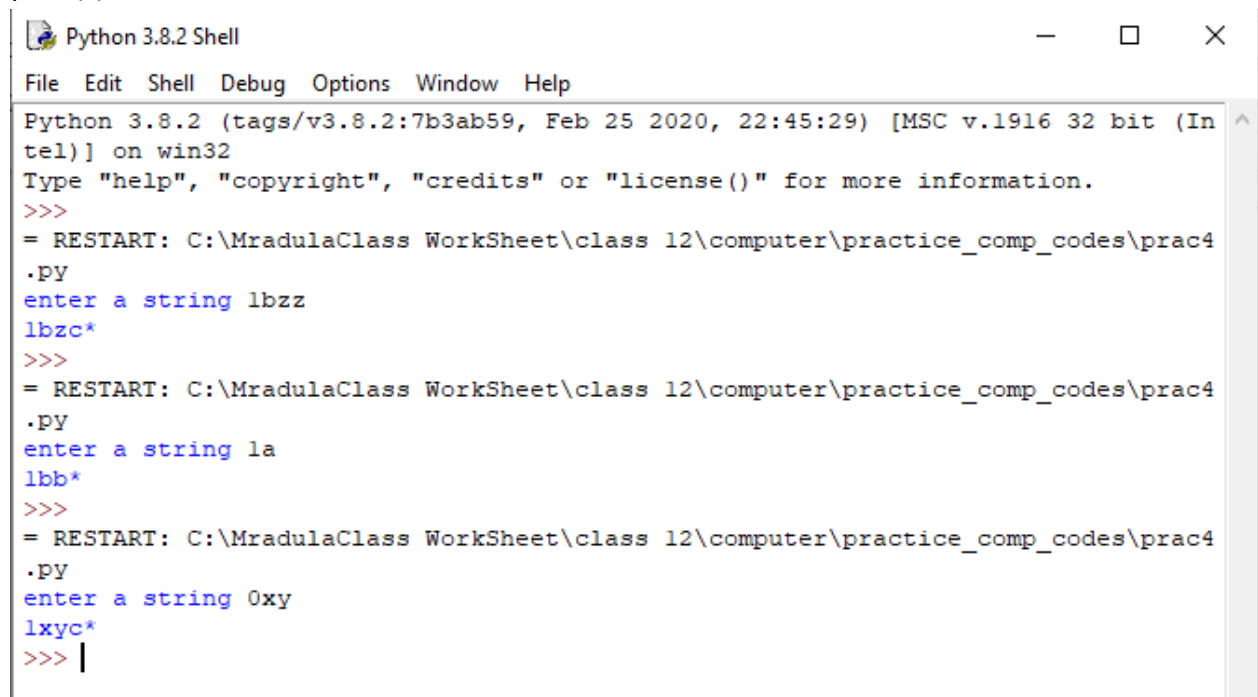
```
        s='1'+s[1:]+ 'z'
```

```
    else:
```

```
        s=s+'*'
```

```
    break
```

```
print(s)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
enter a string 1bzz
1bzc*
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
enter a string 1a
1bb*
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
enter a string 0xy
1xyc*
>>> |
```

16. Predict the output:

```
T= "Mind@work!"
```

```
R=""
```

```
l=len(T)
```

```
print("Original : ",T)
```

```
for i in range(l):
```

```
    if T[i].isalpha()==False:
```

```
        R+='*'
```

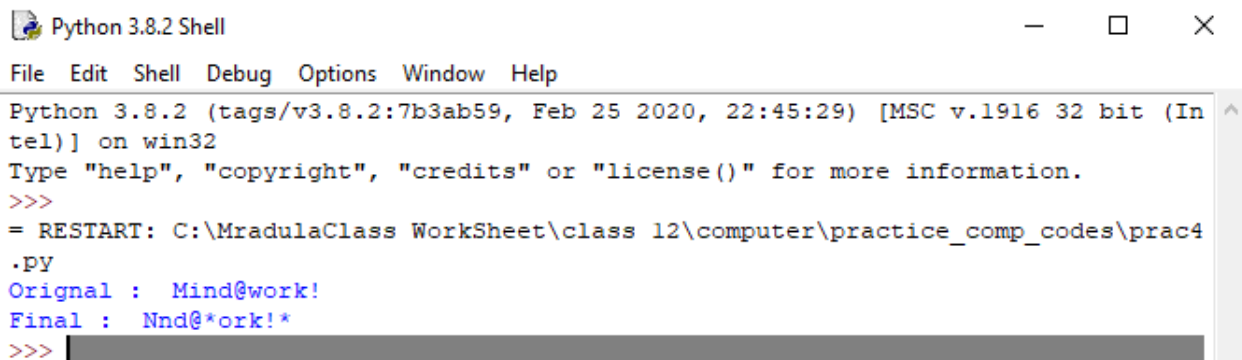
```
    elif T[i].isupper()==True:
```

```
        R+=chr(ord(T[i])+1)
```

```
    else:
```

```
        R+= T[i+1]
```

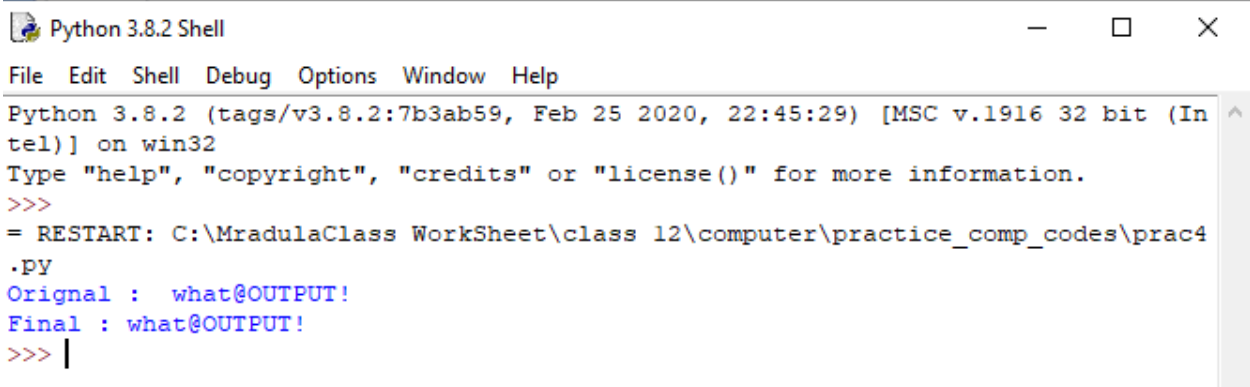
```
print("Final : ",R)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
Original : Mind@work!
Final : Nnd@*ork!*
>>>
```


17. Predict the output:

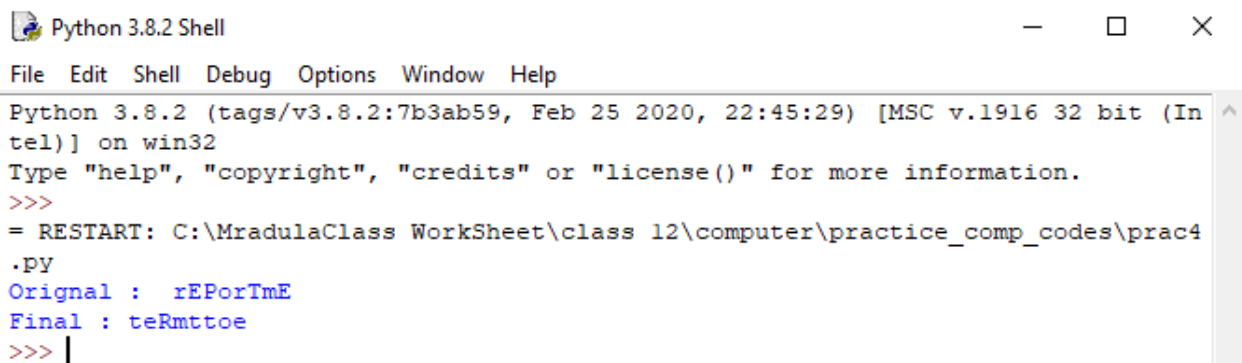
```
Mystring= "what@OUTPUT!"
l=len(Mystring)
R=""
print("Original : ",Mystring)
for i in range(l):
    if Mystring[i].isalpha()==False:
        R+="*";
    elif Mystring[i].isupper():
        R+=chr(ord(Mystring[i])+1)
    else:
        R+=Mystring[i+1]
print("Final :",Mystring)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
Original :  what@OUTPUT!
Final : what@OUTPUT!
>>> |
```

18. Predict the output:

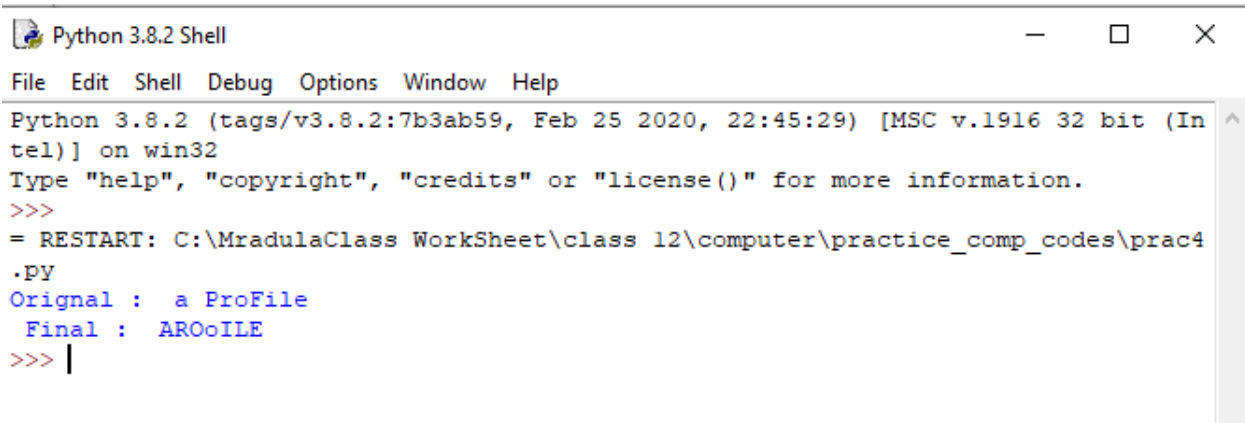
```
SMS="rEPorTmE";
l=len(SMS)
R=""
print("Original : ",SMS)
N=2
for c in range(l):
    if c%2==0:
        R+= chr(ord(SMS[c])+N)
    elif SMS[c].isupper()==True:
        R+=SMS[c].lower()
    else:
        R+=chr(ord(SMS[c])-N)
print("Final :",R)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
Original : rEPorTmE
Final : teRmttEe
>>> |
```

19. Predict the output:

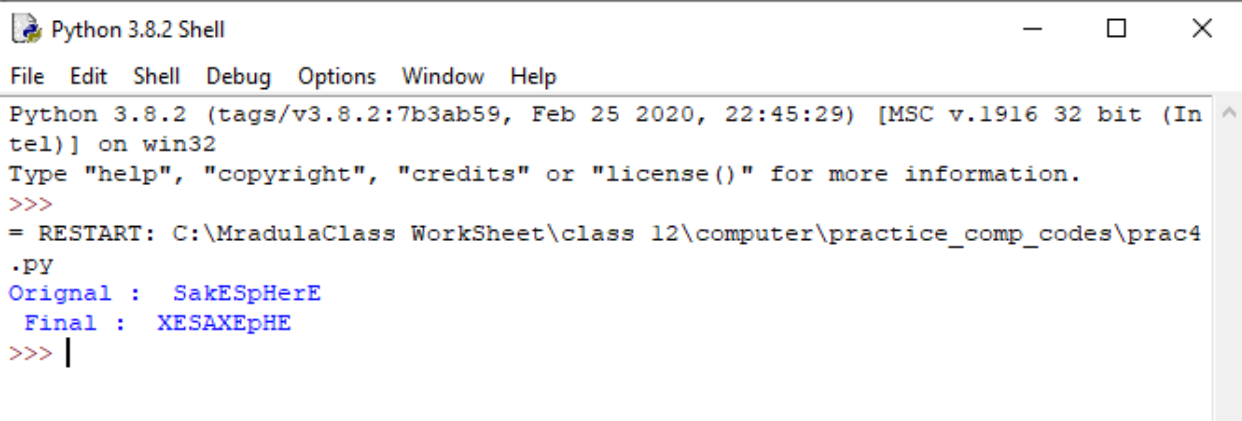
```
s= "a ProFile"
print("Original : ",s)
l=len(s)
r=""
for x in range(l):
    if s[x].islower():
        r+=s[x].upper()
    elif s[x].isupper():
        if (x%2!=0):
            r+=s[x-1].lower()
    else:
        r+=chr(ord(s[x])-1)
print(" Final : ",r)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.py
Original : a ProFile
Final : AROoILE
>>> |
```

20. Predict the output:

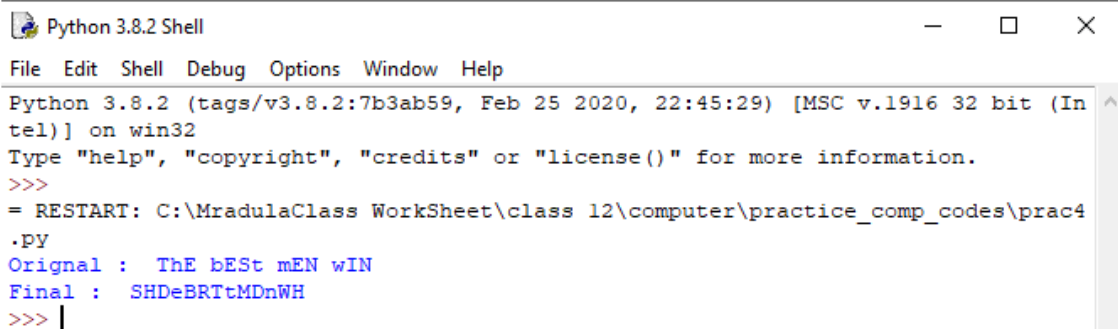
```
poet= "SakESpHerE" ;
l=len(poet)
r=""
print("Original : ",poet)
for i in range(l):
    if poet[i].islower():
        r+=poet[i-2]
    elif poet[i].isupper():
        if poet[i]=='S':
            r+='X';
        elif(poet[i]=='E'):
            r+=poet[i-2].upper()
    else:
        r+=chr(ord(poet[i])-2)
print(" Final : ",r)
```



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4
.PY
Original :  SakESpHerE
Final :  XESAXEpHE
>>> |
```

21. Predict the output:

```
name= "ThE bESt mEN wIN";
l=len(name)
r=""
print("Original : ",name)
for i in range(l):
    if name[i].islower():
        r+= name[i].upper()
    elif name[i].isupper():
        if i%2==0:
            r+=chr(ord(name[i])-1)
    else:
        r+= name[i - 1].lower();
print("Final : ",r)
```



Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4.py

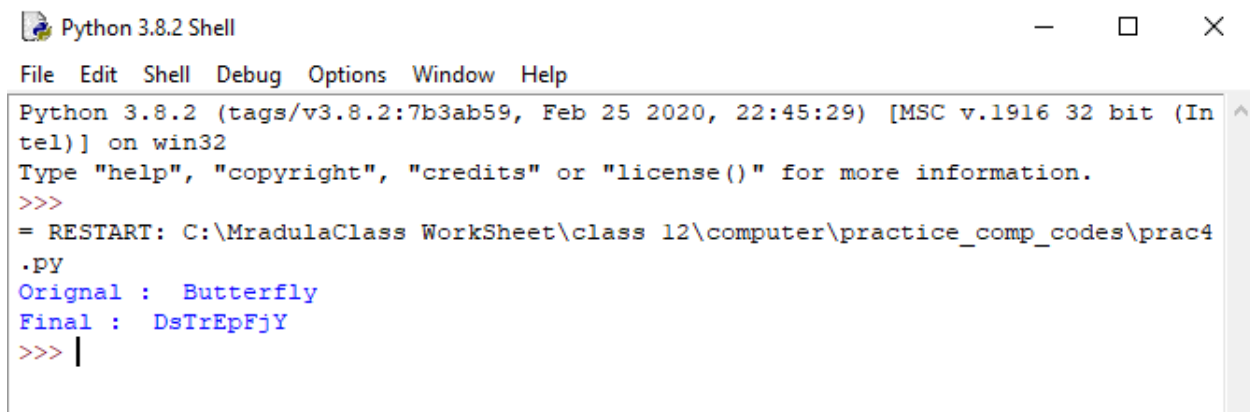
Original : ThE bESt mEN wIN

Final : SHDeBRtMDnWH

>>> |

22. Predict the output:

```
Note = "Butterfly";
NUM=2
l=len(Note )
r=""
print("Original : ",Note )
for K in range(l):
    if ( K % 2 != 0):
        r+=chr(ord(Note[K])-NUM)
    elif Note[K].islower():
        r+=Note[K].upper()
    else:
        r+=chr(ord(Note[K])+NUM)
print("Final : ",r)
```



Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\prac4.py
Original : Butterfly
Final : DsTrEpFjY
>>> |