



Computer Science Practical.

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Class:- XII-C

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Python: -

❖ Write a simple program explaining stack: -

```

third.py - D:\classXII\Twenpy\third.py (3.9.4)
File Edit Format Run Options Window Help
# program to demonstrate stack implementation using list

stack = [] #LIFO (Last In/First Out) concept
|
# append() function to push
# element in the stack
stack.append('x')
stack.append('y')
stack.append('z')

print('Initial stack')
print(stack)

# pop() function to pop
# element from stack in
# LIFO order
print('\nElements popped out from stack:')
print(stack.pop())
print(stack.pop())
print(stack.pop())

print('\nStack after elements are popped:')
print(stack)
# print(stack.pop())

# Uncommenting print(stack.pop()) at line 25 will cause an IndexError
# as the stack is now empty

```

Ln: 5 Col: 1

➤ Output:-

```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16)
[MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for mor
e information.
>>>
===== RESTART: D:\classXII\Twenpy\third.py
=====
Initial stack
['x', 'y', 'z']

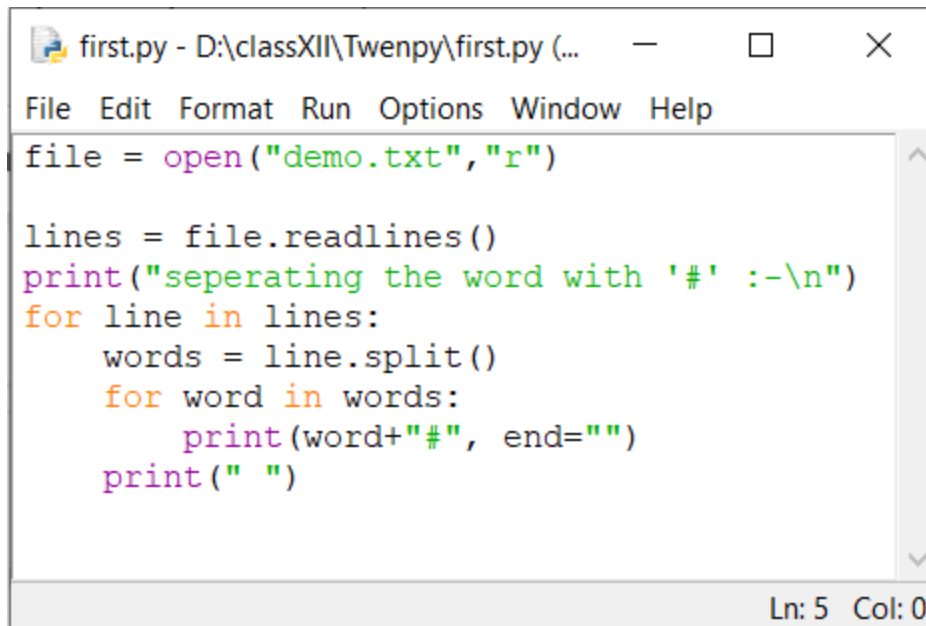
Elements popped out from stack:
z
y
x

Stack after elements are popped:
[]
>>>

```

Ln: 13 Col: 28

❖ Write a program to read a text file line by line and display each word separated by #: -



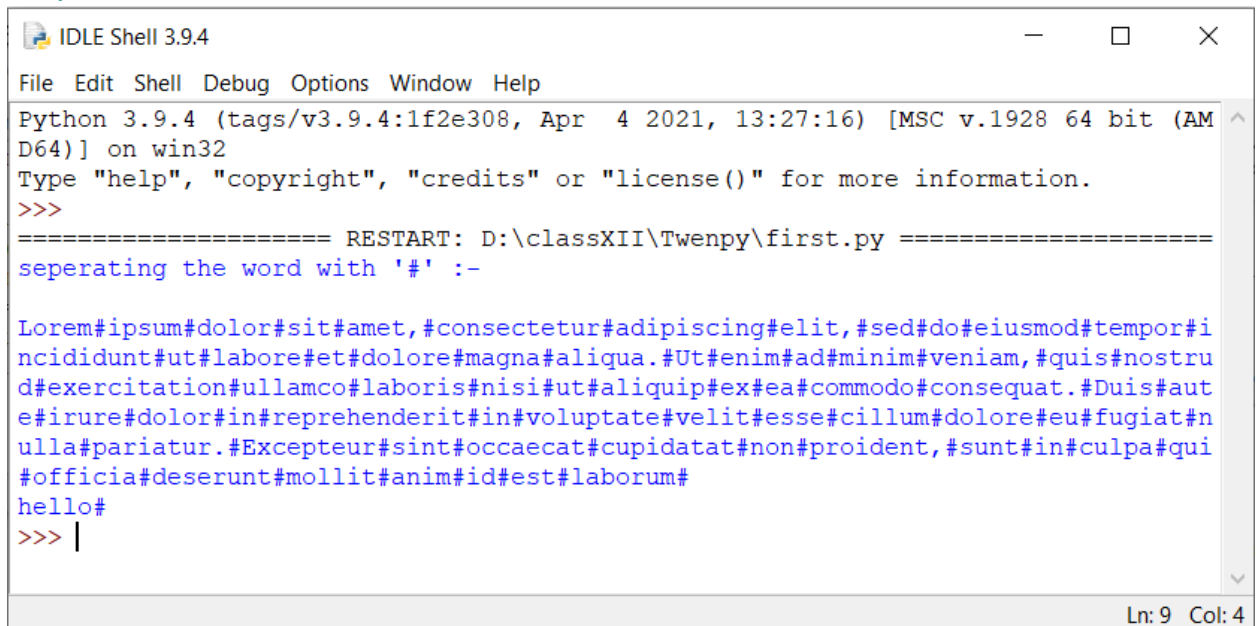
```

first.py - D:\classXII\Twenpy\first.py (...
File Edit Format Run Options Window Help
file = open("demo.txt", "r")

lines = file.readlines()
print("seperating the word with '#' :-\n")
for line in lines:
    words = line.split()
    for word in words:
        print(word+"#", end="")
    print(" ")
Ln: 5 Col: 0

```

➤ Output: -



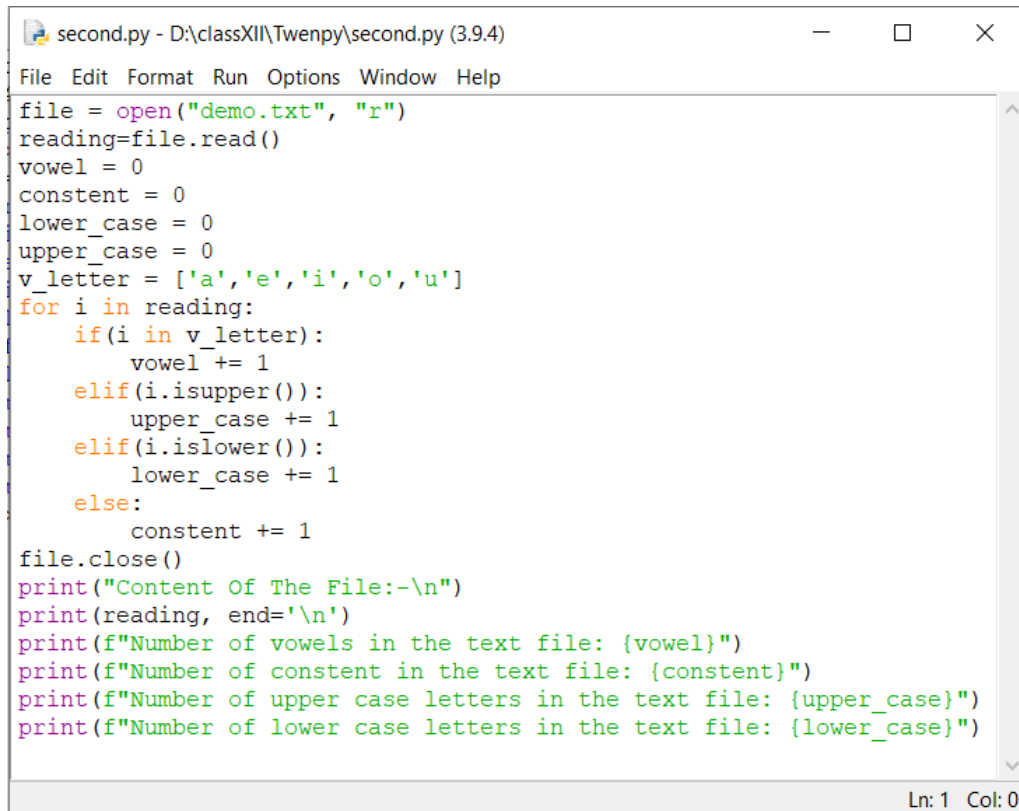
```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\first.py =====
seperating the word with '#' :-

Lorem#ipsum#dolor#sit#amet,#consectetur#adipiscing#elit,#sed#do#eiusmod#tempor#i
ncididunt#ut#labore#et#dolore#magna#aliqua.#Ut#enim#ad#minim#veniam,#quis#nostru
d#exercitation#ullamco#laboris#nisi#ut#aliquip#ex#ea#commodo#consequat.#Duis#aut
e#irure#dolor#in#reprehenderit#in#voluptate#velit#esse#cillum#dolore#eu#fugiat#n
ulla#pariatur.#Excepteur#sint#occaecat#cupidatat#non#proident,#sunt#in#culpa#qui
#officia#deserunt#mollit#anim#id#est#laborum#
hello#
>>> |
Ln: 9 Col: 4

```

❖ Write a program to read a text file and display the number of vowels, consonants, upper and lower case letters:

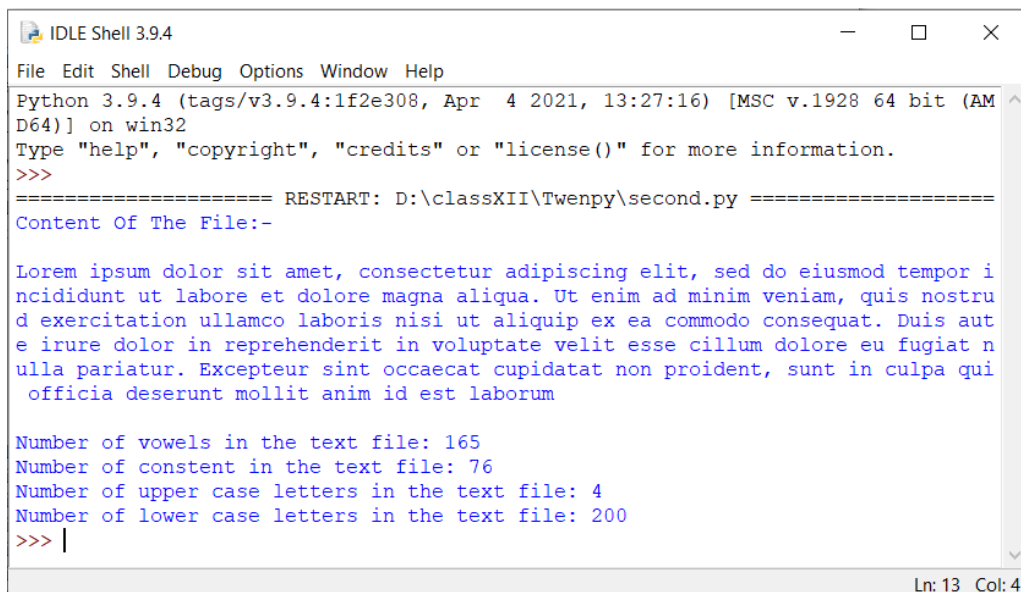


```

second.py - D:\classXII\Twenpy\second.py (3.9.4)
File Edit Format Run Options Window Help
file = open("demo.txt", "r")
reading=file.read()
vowel = 0
constant = 0
lower_case = 0
upper_case = 0
v_letter = ['a','e','i','o','u']
for i in reading:
    if(i in v_letter):
        vowel += 1
    elif(i.isupper()):
        upper_case += 1
    elif(i.islower()):
        lower_case += 1
    else:
        constant += 1
file.close()
print("Content Of The File:-\n")
print(reading, end='\n')
print(f"Number of vowels in the text file: {vowel}")
print(f"Number of constant in the text file: {constant}")
print(f"Number of upper case letters in the text file: {upper_case}")
print(f"Number of lower case letters in the text file: {lower_case}")
Ln: 1 Col: 0

```

➤ Output:-



```

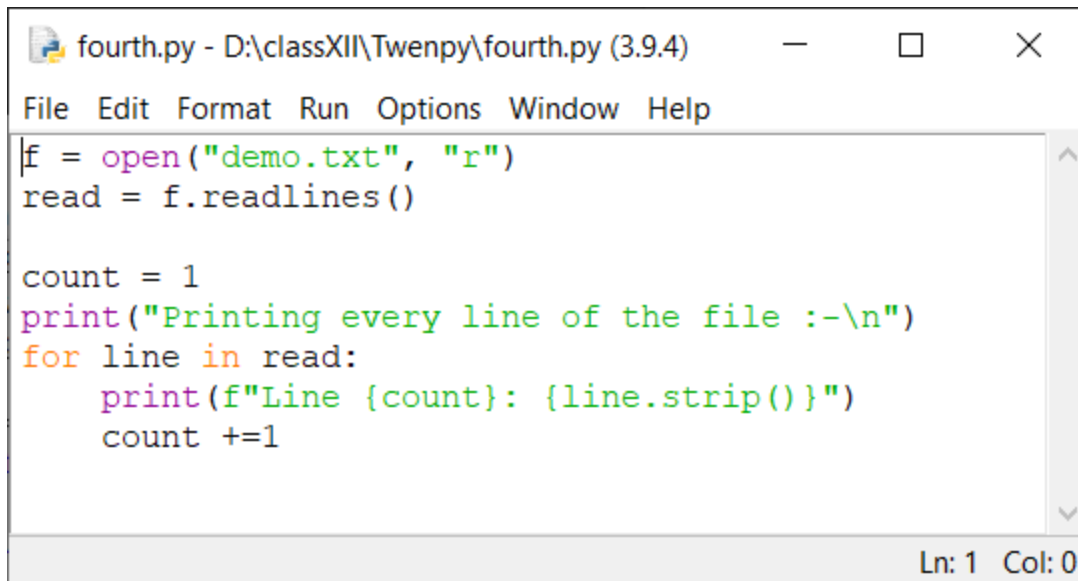
IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\second.py =====
Content Of The File:-

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum

Number of vowels in the text file: 165
Number of constant in the text file: 76
Number of upper case letters in the text file: 4
Number of lower case letters in the text file: 200
>>> |
Ln: 13 Col: 4

```

❖ Write a program to read and print a file, line by line:-



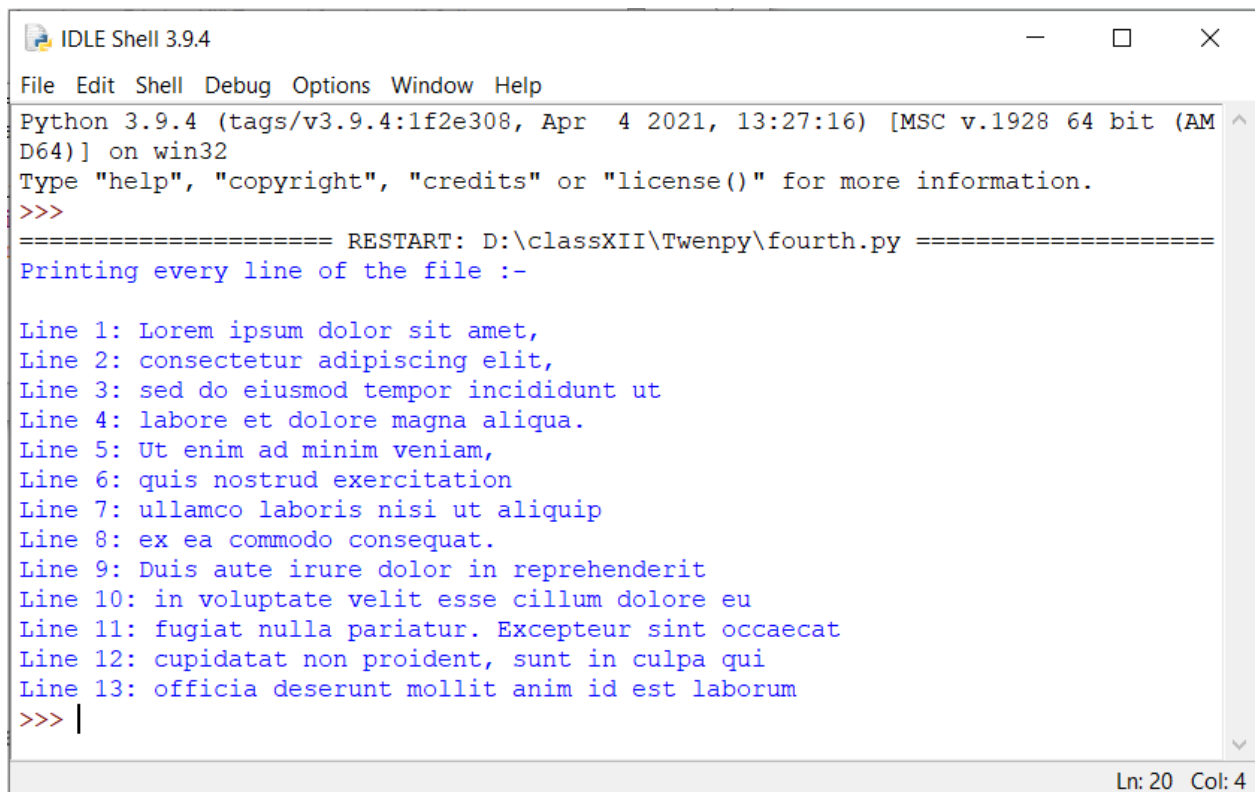
```

fourth.py - D:\classXII\Twenpy\fourth.py (3.9.4)
File Edit Format Run Options Window Help
f = open("demo.txt", "r")
read = f.readlines()

count = 1
print("Printing every line of the file :-\n")
for line in read:
    print(f"Line {count}: {line.strip()}")
    count += 1
Ln: 1 Col: 0

```

➤ Output:-



```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\fourth.py =====
Printing every line of the file :-

Line 1: Lorem ipsum dolor sit amet,
Line 2: consectetur adipiscing elit,
Line 3: sed do eiusmod tempor incididunt ut
Line 4: labore et dolore magna aliqua.
Line 5: Ut enim ad minim veniam,
Line 6: quis nostrud exercitation
Line 7: ullamco laboris nisi ut aliquip
Line 8: ex ea commodo consequat.
Line 9: Duis aute irure dolor in reprehenderit
Line 10: in voluptate velit esse cillum dolore eu
Line 11: fugiat nulla pariatur. Excepteur sint occaecat
Line 12: cupidatat non proident, sunt in culpa qui
Line 13: officia deserunt mollit anim id est laborum
>>> |
Ln: 20 Col: 4

```

❖ Write a program to display data fetched from SQL database:-

```
*five.py - D:\classXII\Twenpy\five.py (3.9.4)*
File Edit Format Run Options Window Help
import mysql.connector as mysqlconnector
import random
import time

mysqlconnect = mysqlconnector.connect(host='sql12.freemysqlhosting.net',
                                     user='sql12578350',
                                     passwd='84xPRyu3EQ', database='sql12578350')

cur = mysqlconnect.cursor()

def main():
    cur.execute("select * from checkin")
    d = cur.fetchall()
    tabl = []
    for r in d:
        tabl.append(r)
    # print(tabl)
    print("cid \t\tname\t\tphoneno \tverification\t checkin \t checkout")
    for ele1,ele2,ele3,ele4,ele5,ele6 in tabl:
        print("{:<14}\t{:<11}\t{:<16}\t\t{:<4}\t\t{ } | {}".format(ele1,ele2,ele3,ele4,ele5,ele6))

while True:
    if mysqlconnect.is_connected():
        print("Connecting To The Service....")
        time.sleep(2)
        print("Connection Establish")
        main()
        break
    else:
        print("Unable to establish connection. \nExiting.....")
        break
```

➤ Output:-

```
IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\five.py =====
Connecting To The Service....
Connection Establish
cid          name          phoneno      verification  checkin      checkout
41977145     | kamlesh     | 2147483647  | 1           | 2022-11-12  | 2022-11-15
210938692   | shub        | 7847829987  | 0           | 2022-11-15  | 2022-11-19
678843316   | dinesh      | 9873356177  | 0           | 2022-11-02  | 2022-11-10
721009572   | kumar       | 1223456689  | 1           | 2022-11-07  | 2022-11-10
828173746   | Rudra       | 8060737409  | 0           | 2022-03-01  | 2022-03-10
940208826   | prash       | 3472103326  | 1           | 2022-10-25  | 2022-10-29
>>> |
```

❖ Write a program to add data to the SQL database:-

```
*six.py - D:\classXII\Twenpy\six.py (3.9.4)*
File Edit Format Run Options Window Help

import mysql.connector as msqlconnector
import random
import time

msqlconnect = msqlconnector.connect(host='sql12.freemysqlhosting.net',
                                   user='sql12578350', passwd='84xPRyu3EQ', database='sql12578350')
cur = msqlconnect.cursor()

def main():
    cid = random.randint(100, 999999999)
    name = input("Enter the name of the customer: ")
    phoneno = random.randint(1000000000, 9999999999)
    verification = int(input(
        "Enter 0 if customer does not provide any verification document else enter 1: "))
    checkin = input("Enter the checkin in YYYY-MM-DD format: ")
    checkout = input("Enter the checkout in YYYY-MM-DD format: ")
    cur.execute(
        f'''INSERT INTO `checkin` (`cid`, `name`, `phoneno`, `verification`, `checkindate`, `checkoutdate`) VALUES ({cid},
        '{name}', '{phoneno}', '{verification}', '{checkin}', '{checkout}');'''
    )
    msqlconnect.commit()

while True:
    if msqlconnect.is_connected():
        print("Connecting To The Service....")
        time.sleep(2)
        print("Connection Establish")
        main()
        break
    else:
        print("Unable to establish connection. \nExiting....")
        break
```

Ln: 7 Col: 36

➤ Output:-

```
IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help

Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\six.py =====
Connecting To The Service....
Connection Establish
Enter the name of the customer: Nath
Enter 0 if customer does not provide any verification document else enter 1: 0
Enter the checkin in YYYY-MM-DD format: 2022-02-14
Enter the checkout in YYYY-MM-DD format: 2022-02-15
>>> |
```

Ln: 11 Col: 4

❖ Write a program to delete a row from the SQL database table:

```

seven sql.py - D:\classXII\Twenpy\seven sql.py (3.9.4)
File Edit Format Run Options Window Help
import mysql.connector as msqlconnector
import random
import time

msqlconnect = msqlconnector.connect(host='sql12.freemysqlhosting.net',
                                   user='sql12578350',
                                   passwd='84xPRyu3EQ', database='sql12578350')

cur = msqlconnect.cursor()

def main():
    print("Which customer data you want delete: ")
    cid = int(input("Enter The Respective 'cid': "))
    x = cur.execute(f"select * from checkin where cid={cid}")
    d = cur.fetchall()
    tabl = []
    print("Deleted the following details:-")
    for r in d:
        tabl.append(r)
    # print(tabl)
    print("cid \t\tname\t\tphoneno \tverification\t checkin \t checkout")
    for ele1, ele2, ele3, ele4, ele5, ele6 in tabl:
        print("{:<14}\t{:<11}\t{:<16}\t\t{:<4}\t\t\t| {} | {}".format(
            ele1, ele2, ele3, ele4, ele5, ele6))
    cur.execute(f"delete from checkin where cid={cid}")
    msqlconnect.commit()

while True:
    if msqlconnect.is_connected():
        print("Connecting To The Service....")
        time.sleep(2)
        print("Connection Establish")
        main()
        break
    else:
        print("Unable to establish connection. \nExiting.....")
        break

```

➤ Output:

```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr  4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\seven sql.py =====
Connecting To The Service....
Connection Establish
Which customer data you want delete:
Enter The Respective 'cid': 210938692
Deleted the following details:-
cid          name          phoneno      verification  checkin      checkout
210938692    | shub        | 7847829987 |             | 2022-11-15  | 2022-11-19
>>>

```


❖ Write a program to encrypt/decrypt a message:

```

nine.py - D:\classXII\Twenpy\nine.py (3.9.4)
File Edit Format Run Options Window Help
f = open("demo.txt", "a")
real_message=input('Enter the message to be encoded: ')
j=int(input("Input a random integer:"))
secret_message=[]
a = ""
print(f"Encryted message: ", end="")
for i in real_message:
    s = ord(i) + j
    a += str(s) + " "
    secret_message.append(s)
f.write(f"Encoded text: {a}\n")
print(a)
# Decrypting the secret_message
revealed_message=""
for i in secret_message:
    s=str(chr(i-j))
    revealed_message += s
f.write(f"Decoded text: {revealed_message}\n")
f.write(f"'-'*(len(secret_message)*6)}\n")
print(f"\nDecrypted message: {revealed_message}")
Ln: 1 Col: 0

```

➤ Output:

```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\nine.py =====
Enter the message to be encoded: Hello there
Input a random integer:34
Encryted message: 106 135 142 142 145 66 150 138 135 148 135
Decrypted message: Hello there
>>>
Ln: 9 Col: 4

```

❖ Write a program to write the Fibonacci sequence in a text file:

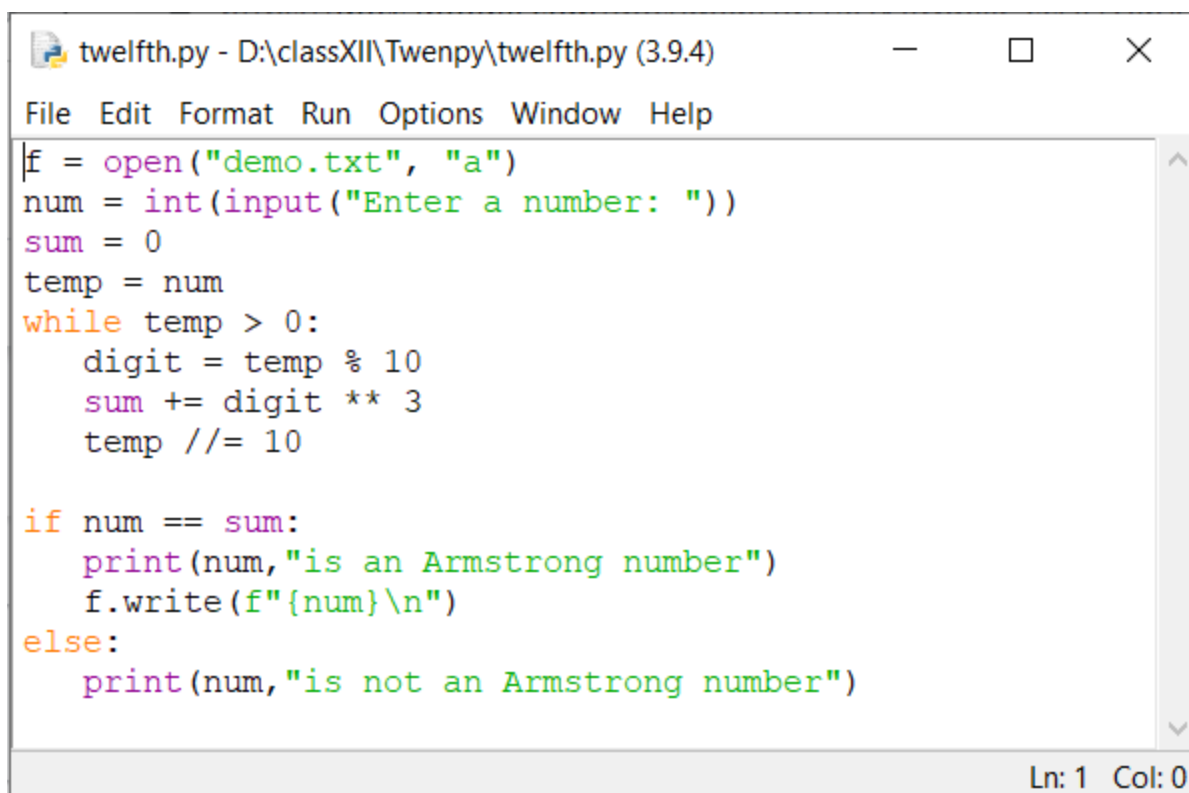
```
eleven.py - D:\classXII\Twenpy\eleven.py (3.9.4)
File Edit Format Run Options Window Help
f=open("demo.txt","a")
nterms = int(input("How many terms? "))
n1, n2 = 0, 1
count = 0
if nterms <= 0:
    print("Please enter a positive integer")
elif nterms == 1:
    print("Fibonacci sequence upto",nterms,":")
    print(n1)
else:
    print("Writing Fibonacci sequence in the text file")
    while count < nterms:
        f.write(f"{n1}\n")

        nth = n1 + n2
        # update values
        n1 = n2
        n2 = nth
        count += 1
Ln: 1 Col: 0
```

➤ Output

```
demo.txt - Notepad
File Edit Format View Help
0
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
2584
4181
6765
10946
17711
Ln 1, 100% Windows (CRLF) UTF-8
```

❖ Write a program to collect Armstrong Number:

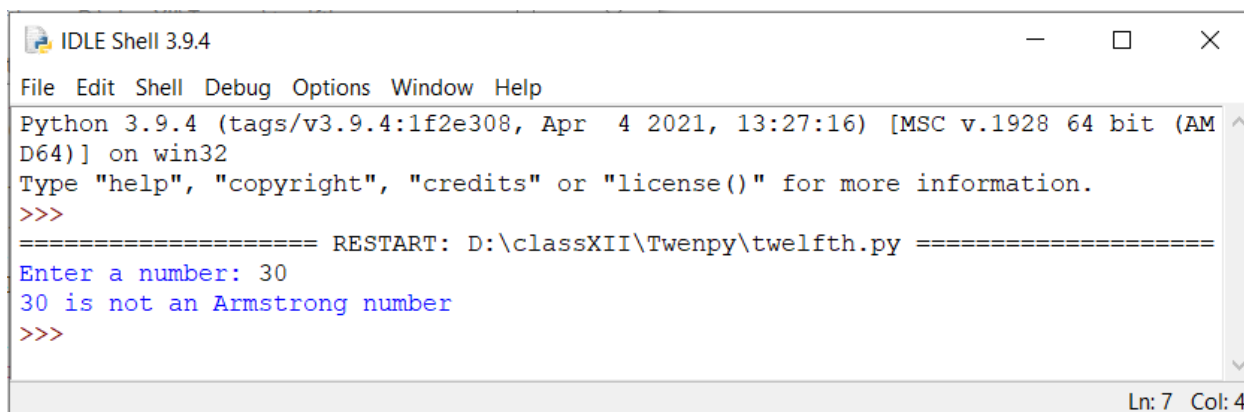


```
twelfth.py - D:\classXII\Twenpy\twelfth.py (3.9.4)
File Edit Format Run Options Window Help
f = open("demo.txt", "a")
num = int(input("Enter a number: "))
sum = 0
temp = num
while temp > 0:
    digit = temp % 10
    sum += digit ** 3
    temp //= 10

if num == sum:
    print(num, "is an Armstrong number")
    f.write(f"{num}\n")
else:
    print(num, "is not an Armstrong number")

Ln: 1 Col: 0
```

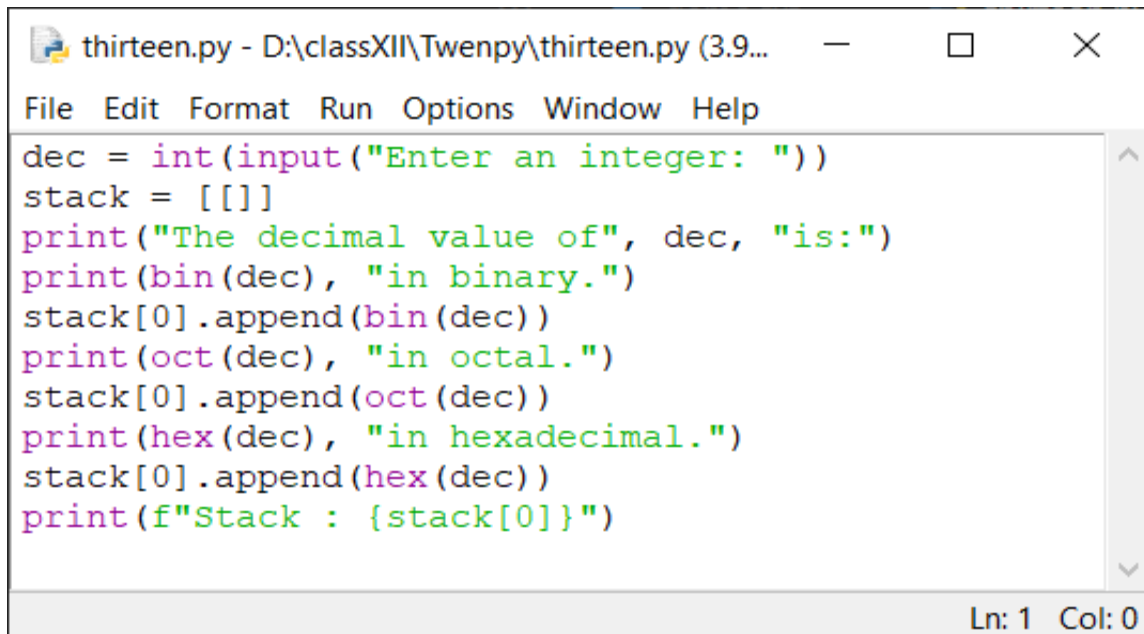
➤ Output:



```
IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\twelfth.py =====
Enter a number: 30
30 is not an Armstrong number
>>>

Ln: 7 Col: 4
```

❖ Write a program to convert Dec to Binary and Octal to Hexa and stack it: -

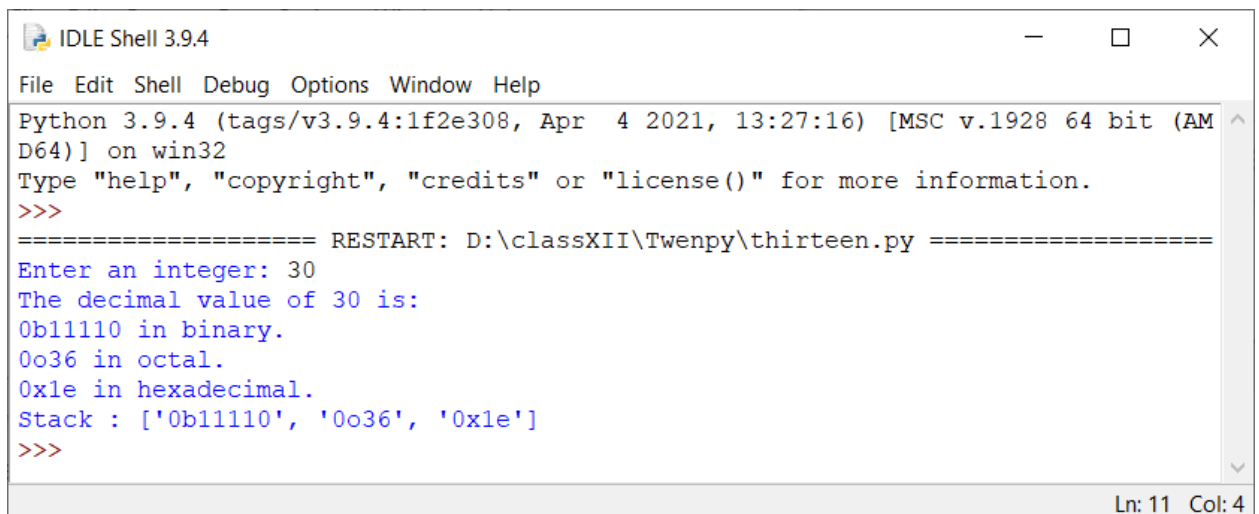


```

thirteen.py - D:\classXII\Twenpy\thirteen.py (3.9...
File Edit Format Run Options Window Help
dec = int(input("Enter an integer: "))
stack = []
print("The decimal value of", dec, "is:")
print(bin(dec), "in binary.")
stack[0].append(bin(dec))
print(oct(dec), "in octal.")
stack[0].append(oct(dec))
print(hex(dec), "in hexadecimal.")
stack[0].append(hex(dec))
print(f"Stack : {stack[0]}")
Ln: 1 Col: 0

```

➤ Output:



```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\thirteen.py =====
Enter an integer: 30
The decimal value of 30 is:
0b11110 in binary.
0o36 in octal.
0x1e in hexadecimal.
Stack : ['0b11110', '0o36', '0x1e']
>>>
Ln: 11 Col: 4

```

❖ Make a simple calculator using python: -

```
tenth.py - D:\classXII\Twenpy\tenth.py (3.9.4)
File Edit Format Run Options Window Help
f=open("demo.txt","a")
print("Select operation.")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.Divide")
sign = ['+', '-', '*', '/']
while True:
    choice = int(input("Enter choice(1/2/3/4): "))

    if choice in (1, 2, 3, 4):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))
        answer = f"{num1} {sign[choice-1]} {num2} = {}".format(sign[choice-1],eval(f"{num1} {sign[choice-1]} {num2}"))
        f.write(f"{answer}\n")
        print(answer)

        next_calculation = input("Let's do next calculation? (yes/no): ")
        if next_calculation == "no":
            break

    else:
        print("Invalid Input")
```

Ln: 24 Col: 0

➤ Output:

```
IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\tenth.py =====
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 3
Enter first number: 35
Enter second number: 25
35.0 * 25.0 = 875.0
Let's do next calculation? (yes/no): no
>>>
```

Ln: 15 Col: 4

❖ Write a program to write student's detail in a CSV file: -

```

*fourteen.py - D:\classXII\Twenpy\fourteen.py (3.9.4)*
File Edit Format Run Options Window Help

import csv

f = open("dash.csv", "w")
mywriter = csv.writer(f)
x = ["Ad_Numner", "Name", "Phone_No", "Father_Name", "Mother_Name"]
mywriter.writerow(x)
y = 'yes'
def simple():

    Ad_Numner = int(input("Enter Student Admission Number: "))
    Name = input("Enter Student Name: ")
    Phone_No = int(input("Enter Student's Contact Number: "))
    Father_Name = input("Enter Student's Father Name: ")
    Mother_Name = input("Enter Student's Mother Name: ")
    mywriter.writerow([Ad_Numner, Name, Phone_No, Father_Name, Mother_Name])
    print("\nProvided Data Has Been Written Inside the CSV file.\n")

while True:
    y = input("Do You Want To Add Details Of A Student (Type yes or no): ")
    if y.lower() == 'yes':
        simple()
    else:
        print("\nQuitting The Program ..... \n")
        break

```

Ln: 25 Col: 0

➤ Output: -

```

IDLE Shell 3.9.4
File Edit Shell Debug Options Window Help
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr  4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\fourteen.py =====
Do You Want To Add Details Of A Student (Type yes or no): yes
Enter Student Admission Number: 123
Enter Student Name: Rahul
Enter Student's Contact Number: 1234567899
Enter Student's Father Name: Rakesh
Enter Student's Mother Name: Rashmi

Provided Data Has Been Written Inside the CSV file.

Do You Want To Add Details Of A Student (Type yes or no): no
Quitting The Program .....
>>>

```

Ln: 18 Col: 4

❖ Write a program to find LCM and stack it if even: -

```
fifteen.py - D:\classXII\Twenpy\fifteen.py (3.9.4)
File Edit Format Run Options Window Help

d = []
def compute_lcm(x, y):
    if x > y:
        greater = x
    else:
        greater = y
    while(True):
        if((greater % x == 0) and (greater % y == 0)):
            lcm = greater
            break
        greater += 1
    return lcm

num1 = int(input("Enter the 1st number: "))
num2 = int(input("Enter the 2nd number: "))

print("The L.C.M. is", compute_lcm(num1, num2))

if compute_lcm(num1, num2) % 2 == 0:
    d.append(compute_lcm(num1, num2))
    print(f"\nThe LCM of {num1} and {num2} is even. Hence push the LCM to Stack")
else:
    print(f"\nThe LCM of {num1} and {num2} is odd. \nQuitting the program.....")

Ln: 24 Col: 0
```

➤ Output: -

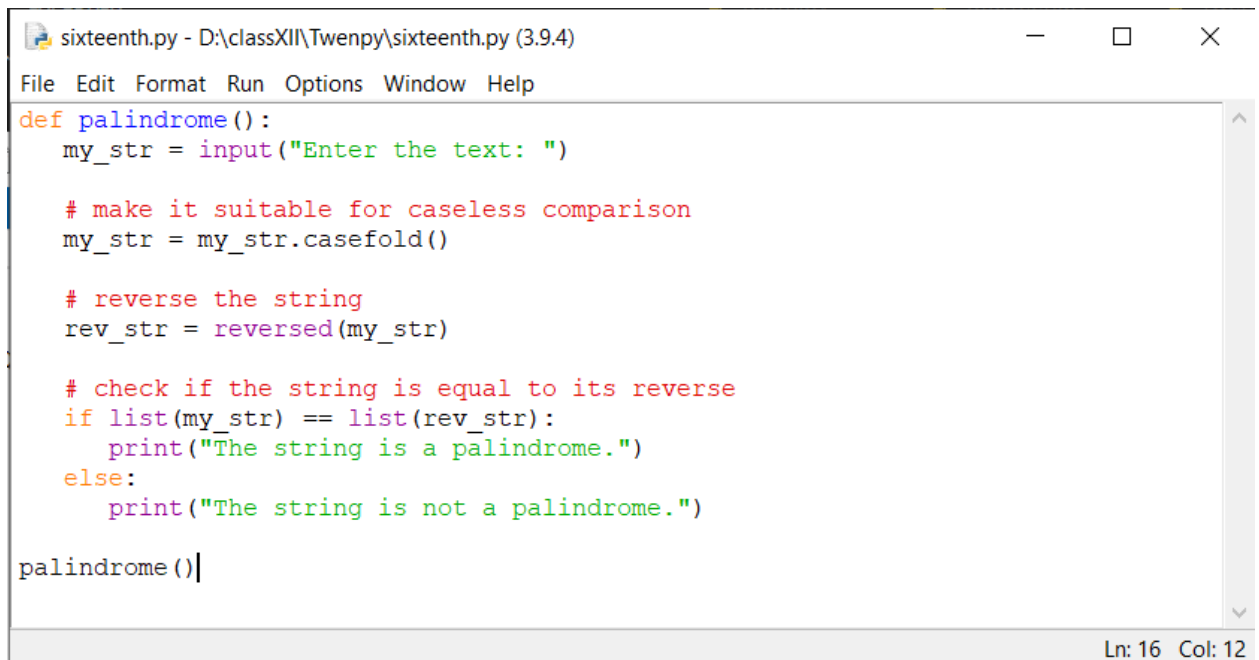
```
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Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32
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>>>
===== RESTART: D:\classXII\Twenpy\fifteen.py =====
Enter the 1st number: 8
Enter the 2nd number: 4
The L.C.M. is 8

The LCM of 8 and 4 is even. Hence push the LCM to Stack
>>> |

Ln: 10 Col: 4
```

❖ Write a program to check whether a string is palindrome or not: -



```
sixteenth.py - D:\classXII\Twenpy\sixteenth.py (3.9.4)
File Edit Format Run Options Window Help
def palindrome():
    my_str = input("Enter the text: ")

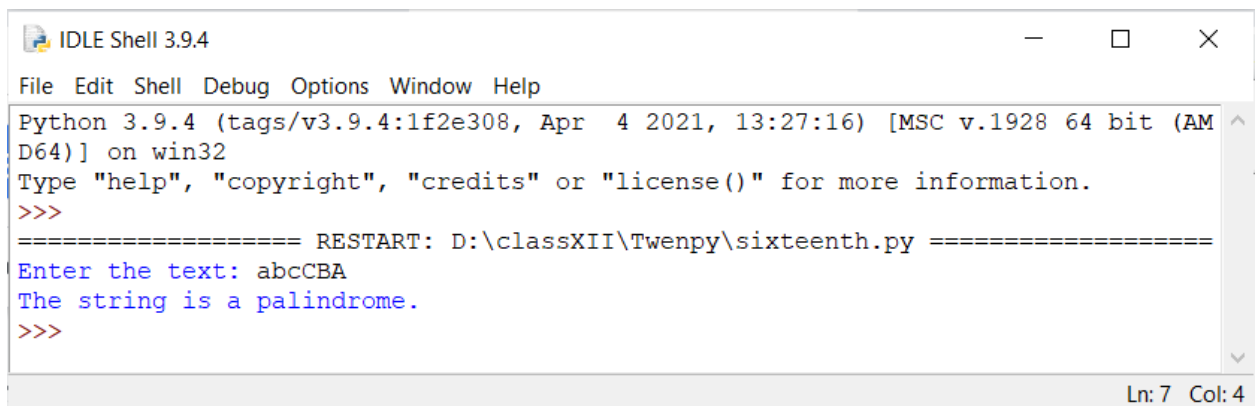
    # make it suitable for caseless comparison
    my_str = my_str.casefold()

    # reverse the string
    rev_str = reversed(my_str)

    # check if the string is equal to its reverse
    if list(my_str) == list(rev_str):
        print("The string is a palindrome.")
    else:
        print("The string is not a palindrome.")

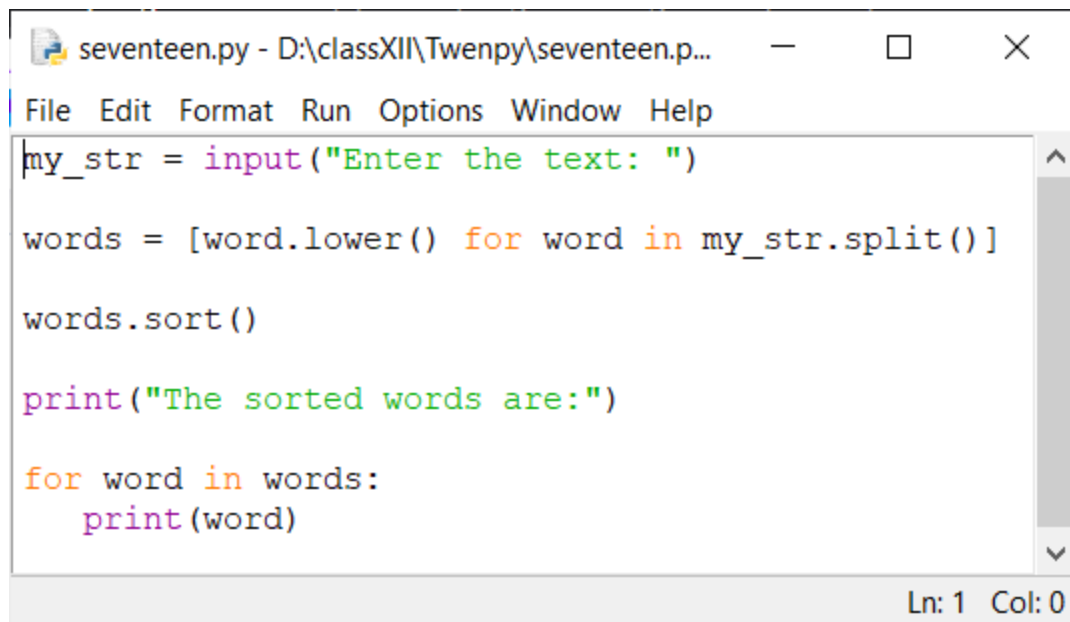
palindrome()
Ln: 16 Col: 12
```

➤ Output: -



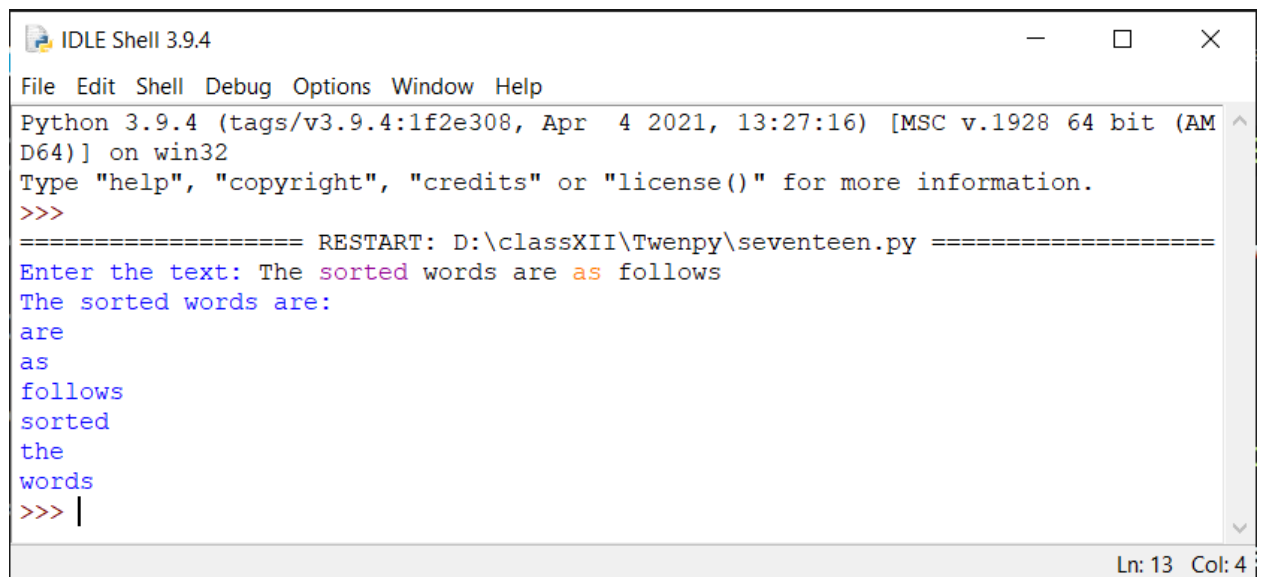
```
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>>>
===== RESTART: D:\classXII\Twenpy\sixteenth.py =====
Enter the text: abcCBA
The string is a palindrome.
>>>
Ln: 7 Col: 4
```

❖ Write a program to sort words alphabetically: -



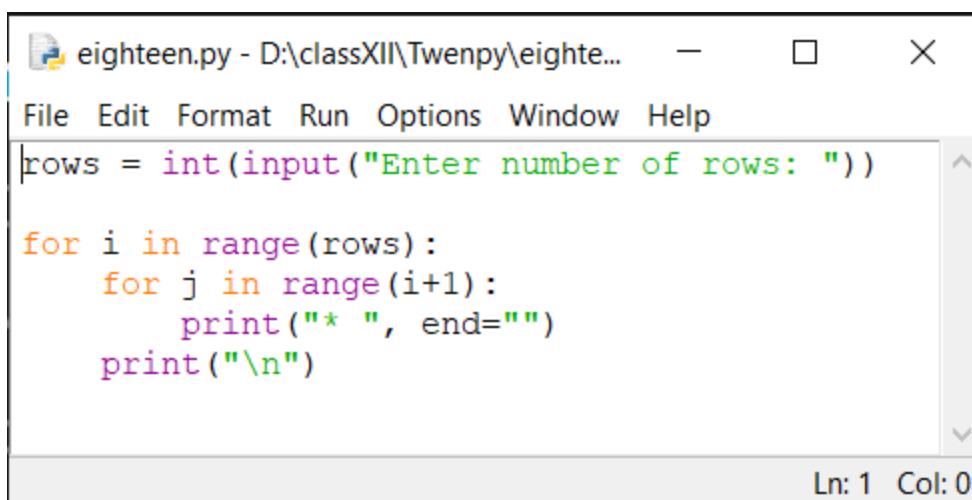
```
seventeen.py - D:\classXII\Twenpy\seventeen.p...  
File Edit Format Run Options Window Help  
my_str = input("Enter the text: ")  
  
words = [word.lower() for word in my_str.split()]  
  
words.sort()  
  
print("The sorted words are:")  
  
for word in words:  
    print(word)  
  
Ln: 1 Col: 0
```

➤ Output: -



```
IDLE Shell 3.9.4  
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Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 4 2021, 13:27:16) [MSC v.1928 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: D:\classXII\Twenpy\seventeen.py =====  
Enter the text: The sorted words are as follows  
The sorted words are:  
are  
as  
follows  
sorted  
the  
words  
>>> |  
  
Ln: 13 Col: 4
```

❖ Write a program to display pyramid pattern: -




```
eighteen.py - D:\classXII\Twenpy\eighte...
File Edit Format Run Options Window Help
rows = int(input("Enter number of rows: "))

for i in range(rows):
    for j in range(i+1):
        print("* ", end="")
    print("\n")

Ln: 1 Col: 0
```

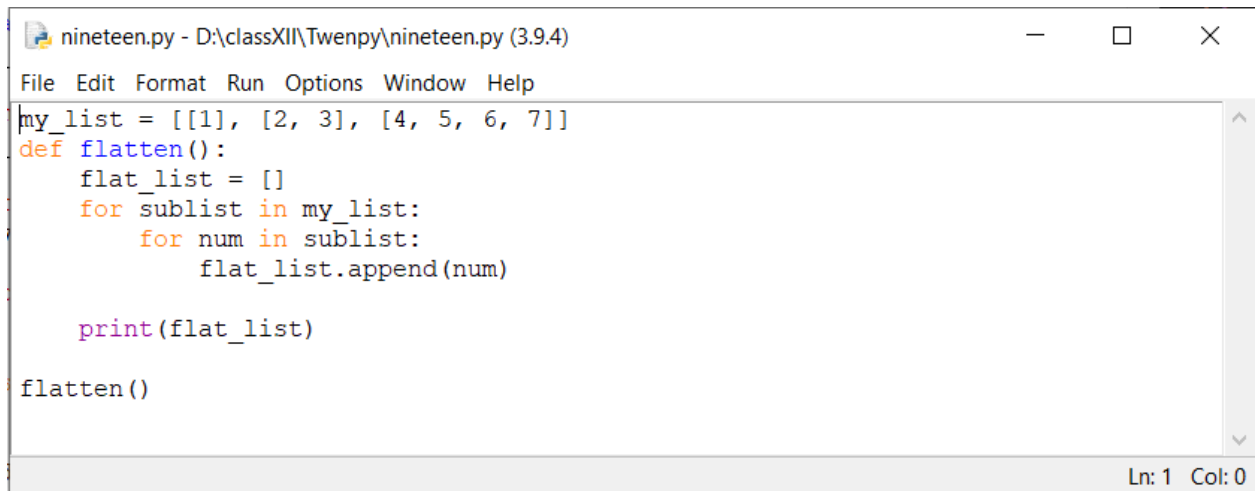
➤ Output: -



```
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>>>
===== RESTART: D:\classXII\Twenpy\eighteen.py =====
Enter number of rows: 8
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * * *
>>> |

Ln: 22 Col: 4
```

❖ Write a program to flatten a nested list: -



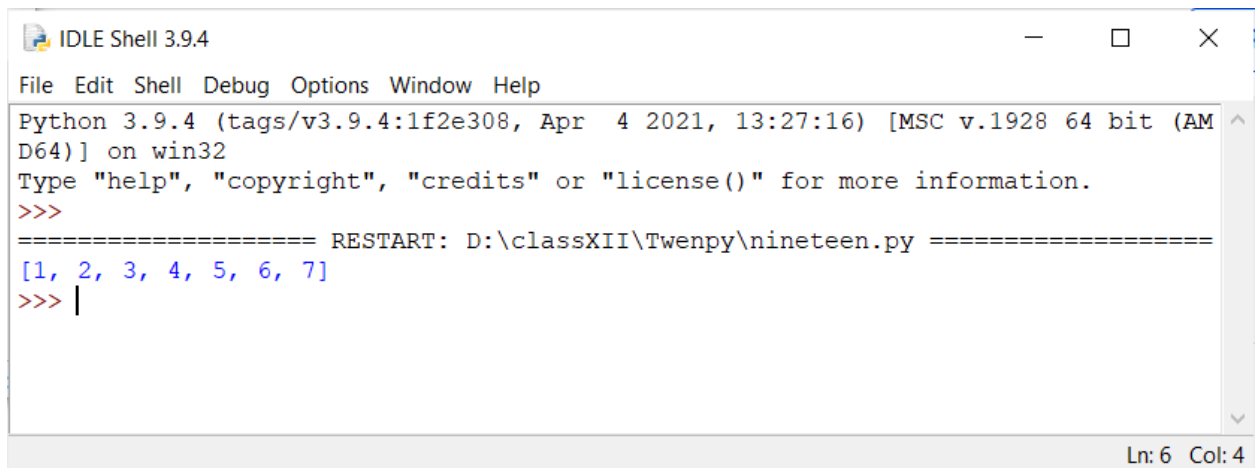
```
nineteen.py - D:\classXII\Twenpy\nineteen.py (3.9.4)
File Edit Format Run Options Window Help
my_list = [[1], [2, 3], [4, 5, 6, 7]]
def flatten():
    flat_list = []
    for sublist in my_list:
        for num in sublist:
            flat_list.append(num)

    print(flat_list)

flatten()

Ln: 1 Col: 0
```

➤ Output: -



```
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>>>
===== RESTART: D:\classXII\Twenpy\nineteen.py =====
[1, 2, 3, 4, 5, 6, 7]
>>> |

Ln: 6 Col: 4
```

❖ Write a program to read the CSV file and output the data in it: -

```

twenty.py - D:\classXII\Twenpy\twenty.py (3.9.4)
File Edit Format Run Options Window Help

import csv

f = open("checkin.csv", "r")
myreader = csv.reader(f)
print("-"*102)
print("|{:<14}|\t|{:<11}| \t|{:<16}|\t\t| \t|{:<4}| \t| \t| \t|".format("cid","name","Phone No.,""Verification","Checkin Date","Checkout Date"))
print("-"*102)

for ele1,ele2,ele3,ele4,ele5,ele6 in myreader:
    print("|{:<14}|\t|{:<11}| \t|{:<16}|\t\t| \t|{:<4}|\t| \t| \t| \t|".format(ele1,ele2,ele3,ele4,ele5,ele6))
print("-"*102)

```

Ln: 12 Col: 0

➤ Output: -

```

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Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\classXII\Twenpy\twenty.py =====
|cid|name|Phone No.|Verification|Checkin Date|Checkout Date|
|3940766|helli|1223456789|1|2022-11-04|2022-11-08|
|3940966|hll|1023456789|1|2022-11-03|2022-11-04|
|41977145|kamlesh|2147483647|1|2022-11-12|2022-11-15|
|210938692|shub|7482603856|0|2022-11-15|2022-11-19|
|678843316|dinesh|1223456689|0|2022-11-02|2022-11-10|
|721009572|kumar|1223456689|1|2022-11-07|2022-11-10|
|940208826|prash|3472103326|0|2022-10-25|2022-10-29|
>>> |

```

Ln: 16 Col: 4