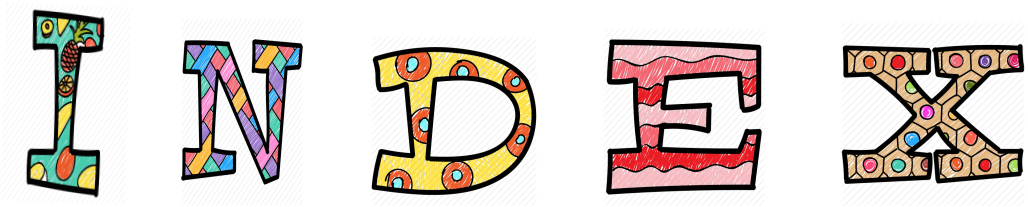



| S.no | Practical | Page Number | Teacher's Signature |
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| | | | |
|---|---|---|---|
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# EXPERIMENT-1

**AIM:** Understanding connectivity and fetchall.

**TASK:** Display records ( above 90 scores).

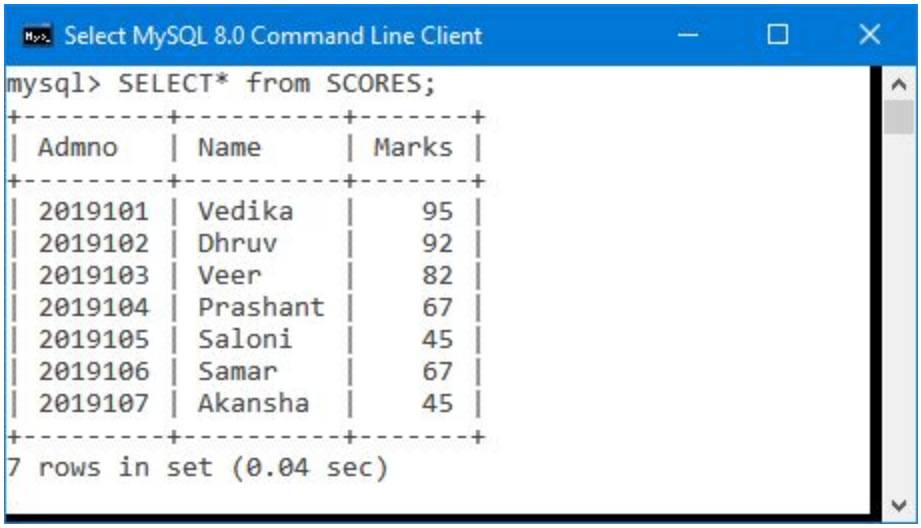
**#SOURCE CODE:**

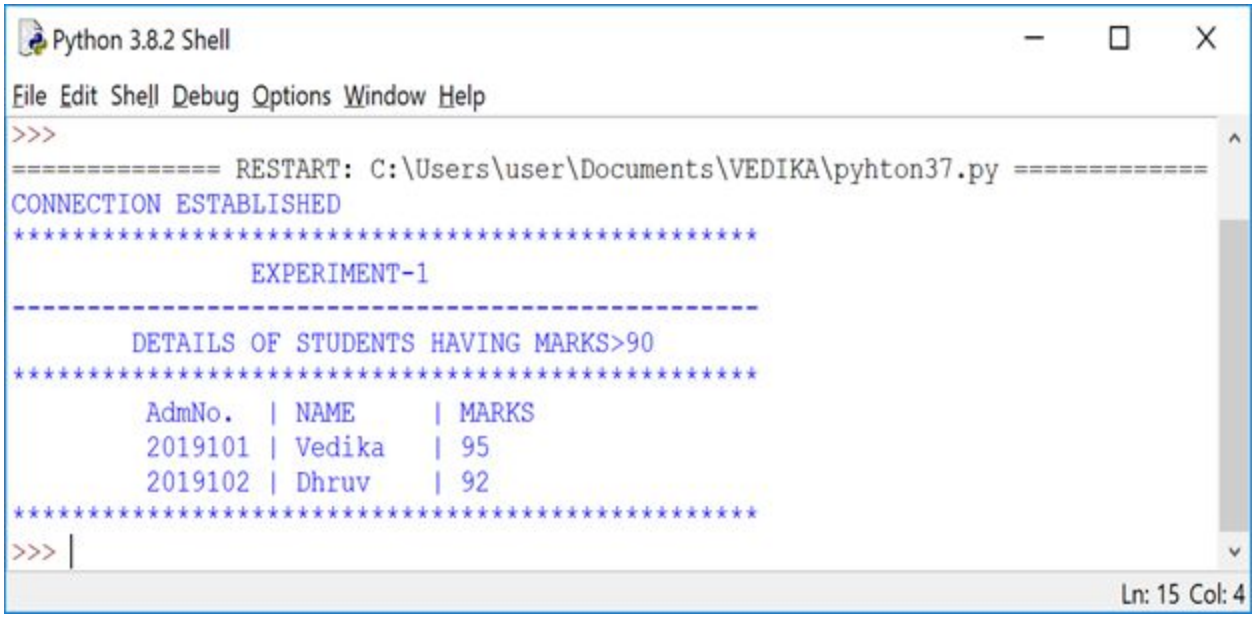
```
import mysql.connector

conn=mysql.connector.connect(
     host="localhost",
     user="root",
     password="tiger",
     database="system1"
   )


if conn.is_connected()==False:
    print("Sorry connection is failed..")
else:
    print("CONNECTION ESTABLISHED")
    cur= conn.cursor()
    q1="SELECT * from SCORES where marks>90"
    cur.execute(q1)
    rs=cur.fetchall()
    print("*"*50)
    print("\t\tEXPERIMENT-1")
    print("-"*50)
    print("\tDETAILS OF STUDENTS HAVING MARKS>90")
     print("*"*50)
    print("\t AdmNo."," |","NAME".ljust(8),"|","MARKS")
    for i in rs:
        print("\t",i[0],"|",i[1].ljust(8),"|",i[2])
    print("*"*50)
```

**#OUTPUT:**


Select MySQL 8.0 Command Line Client
mysql> SELECT* from SCORES;
+---------+----------+-------+
| Admno | Name | Marks |
+---------+----------+-------+
| 2019101 | Vedika | 95 |
| 2019102 | Dhruv | 92 |
| 2019103 | Veer | 82 |
| 2019104 | Prashant | 67 |
| 2019105 | Saloni | 45 |
| 2019106 | Samar | 67 |
| 2019107 | Akansha | 45 |
+---------+----------+-------+
7 rows in set (0.04 sec)


Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\VEDIKA\pyhton37.py ==========
CONNECTION ESTABLISHED
**********
EXPERIMENT-1
---
DETAILS OF STUDENTS HAVING MARKS>90
**********
AdmNo. | NAME | MARKS
2019101 | Vedika | 95
2019102 | Dhruv | 92
**********
>>>
Ln: 15 Col: 4

# EXPERIMENT-2

**AIM:** Understanding fetchone().

**TASK:** Search records.

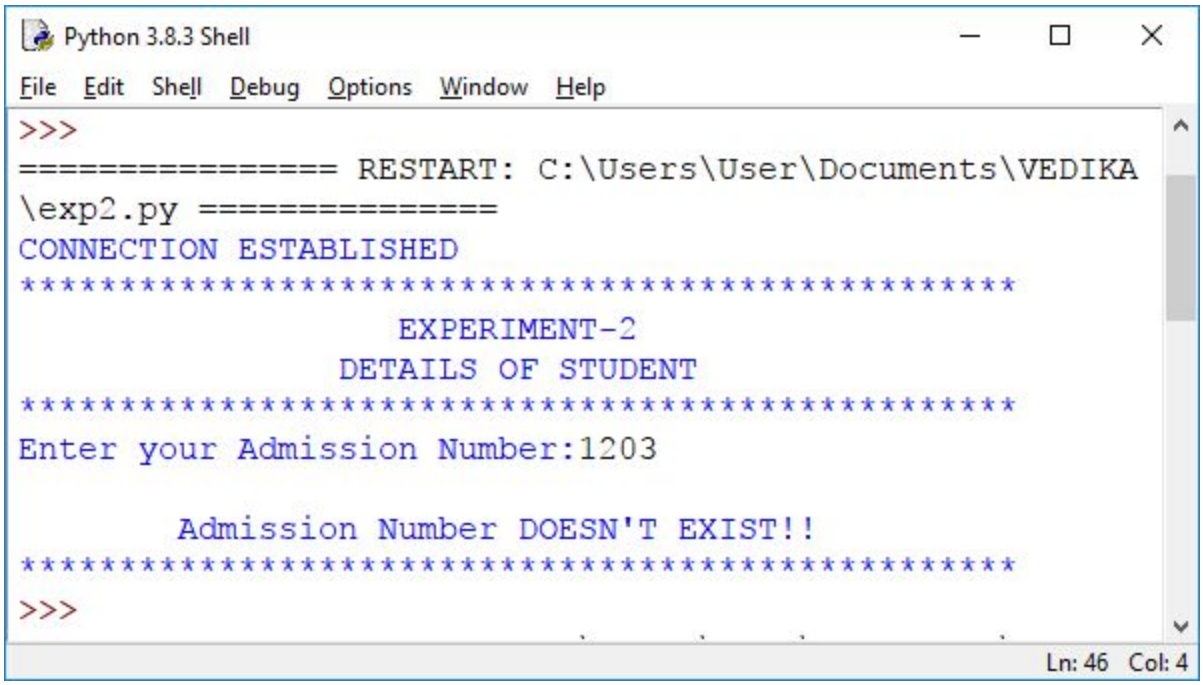
**#SOURCE CODE:**

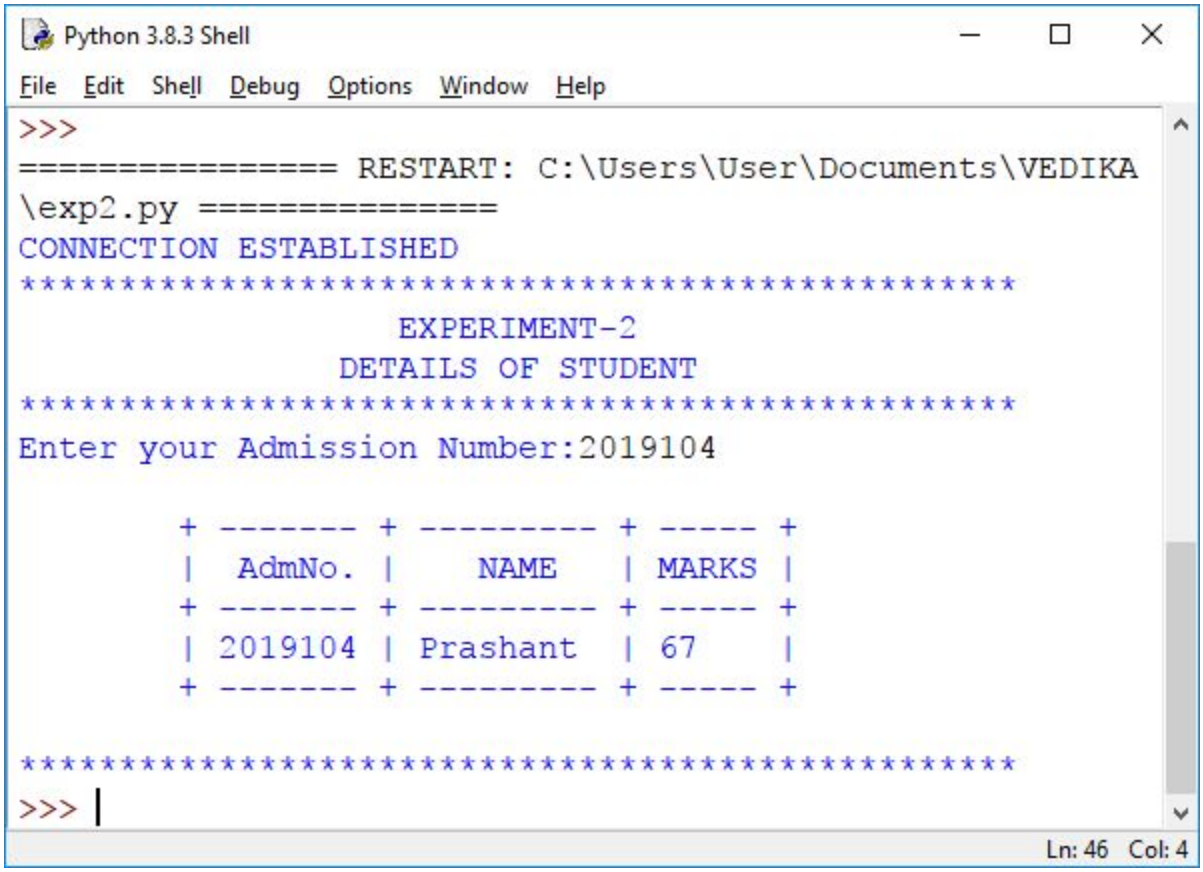
```
import mysql.connector

conn=mysql.connector.connect(
     host="localhost",
     user="root",
     password="tiger",
     database="system1"
   )

if conn.is_connected()==False:
    print("Sorry connection is failed..")
else:
    print("CONNECTION ESTABLISHED")
    cur=conn.cursor()
    print("*"*50)
    print("\t\t   EXPERIMENT-2")
    print("\t\tDETAILS OF STUDENT ")
    print("*"*50)
    ad=input("Enter your Admission Number:")
    print()
    q="SELECT * from SCORES where admno="+ad
    cur.execute(q)
    rs=cur.fetchone()
    if rs==None:
        print("\tAdmission Number DOESN'T EXIST!!")
    else:
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
        print("\t|  AdmNo. |    NAME   | MARKS |")
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
        print("\t|",str(rs[0]).ljust(7),"|",rs[1].ljust(9),"|",str(rs[2]).ljust(5),"|")
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
        print()
    print("*"*50)
```

**#OUTPUT:**


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\User\Documents\VEDIKA
\exp2.py ==========
CONNECTION ESTABLISHED
**********
EXPERIMENT-2
DETAILS OF STUDENT
**********
Enter your Admission Number:1203
Admission Number DOESN'T EXIST!!
**********
>>>
Ln: 46 Col: 4


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\User\Documents\VEDIKA
\exp2.py ==========
CONNECTION ESTABLISHED
**********
EXPERIMENT-2
DETAILS OF STUDENT
**********
Enter your Admission Number:2019104
+ ------- + --------- + ----- +
| AdmNo. | NAME | MARKS |
+ ------- + --------- + ----- +
| 2019104 | Prashant | 67 |
+ ------- + --------- + ----- +
**********
>>>
Ln: 46 Col: 4

# EXPERIMENT-3

**AIM:** Understanding fetchone().

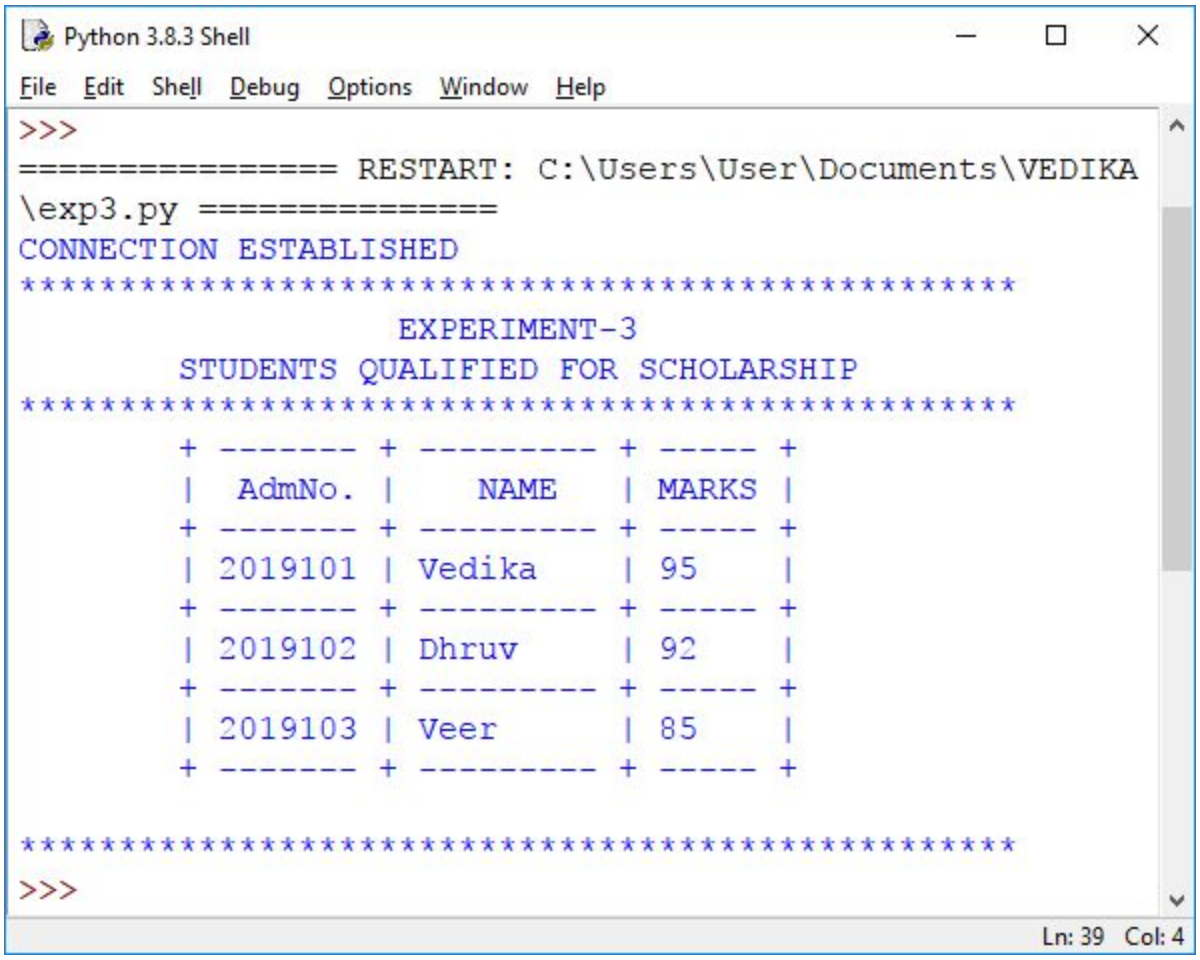
**TASK:** Display Top 3 scores.

**#SOURCE CODE:**

```
import mysql.connector

conn=mysql.connector.connect(
     host="localhost",
     user="root",
     password="tiger",
     database="system1"
   )
if conn.is_connected()==False:
    print("Sorry connection is failed..")
else:
    print("CONNECTION ESTABLISHED")
    cur=conn.cursor()
    print("*"*50)
    print("\t\t   EXPERIMENT-3")
    print("\tSTUDENTS QUALIFIED FOR SCHOLARSHIP ")
    print("*"*50)
    q="SELECT * from SCORES ORDER BY marks DESC"
    cur.execute(q)
    rs=cur.fetchmany(3)
    print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
    print("\t|  AdmNo. |    NAME   | MARKS |")
    print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
    for i in rs:
        print("\t|",str(i[0]).ljust(7),"|",i[1].ljust(9),"|",str(i[2]).ljust(5),"|")
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
    print()
    print("*"*50)
```

**#OUTPUT:**


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\User\Documents\VEDIKA
\exp3.py ==========
CONNECTION ESTABLISHED
**********
EXPERIMENT-3
STUDENTS QUALIFIED FOR SCHOLARSHIP
**********
+ ------- + --------- + ----- +
| AdmNo. | NAME | MARKS |
+ ------- + --------- + ----- +
| 2019101 | Vedika | 95 |
+ ------- + --------- + ----- +
| 2019102 | Dhruv | 92 |
+ ------- + --------- + ----- +
| 2019103 | Veer | 85 |
+ ------- + --------- + ----- +
**********
>>>
Ln: 39 Col: 4

# EXPERIMENT-4

**AIM:** Performing insert, update and delete.

**TASK:** Create a menu driven program to insert, update and delete from a SQL table.

**#SOURCE CODE:**

```
import mysql.connector

conn=mysql.connector.connect(
     host="localhost",
     user="root",
     password="tiger",
     database="system1"
   )

if conn.is_connected()==False:
    print("Sorry connection is failed..")
else:
    print("CONNECTION ESTABLISHED")
    cur=conn.cursor()
    def insert():
          ad=int(input("Enter your Admission No.:"))
          print("-"*50)
          n=input("Enter your Name\t\t:")
          print("-"*50)
          mr=int(input("Enter your Marks\t:"))
          insert="INSERT into SCORES values({},'{}',{})". format(ad,n,mr)
          cur.execute(insert)
          cur.execute("COMMIT")

    def update():
          an=input("Enter your Admission No.:")
          q="SELECT * from SCORES where Admno ="+ an
          cur.execute(q)
          rs=cur.fetchone()
          print("-"*50)
          if rs==None:
               print("INVALID Admission Number!!")
          else:
               ns=int(input("Enter the NEW MARKS\t:"))
               update="UPDATE SCORES SET Marks= {} where Admno= {}". format(ns,an)
```

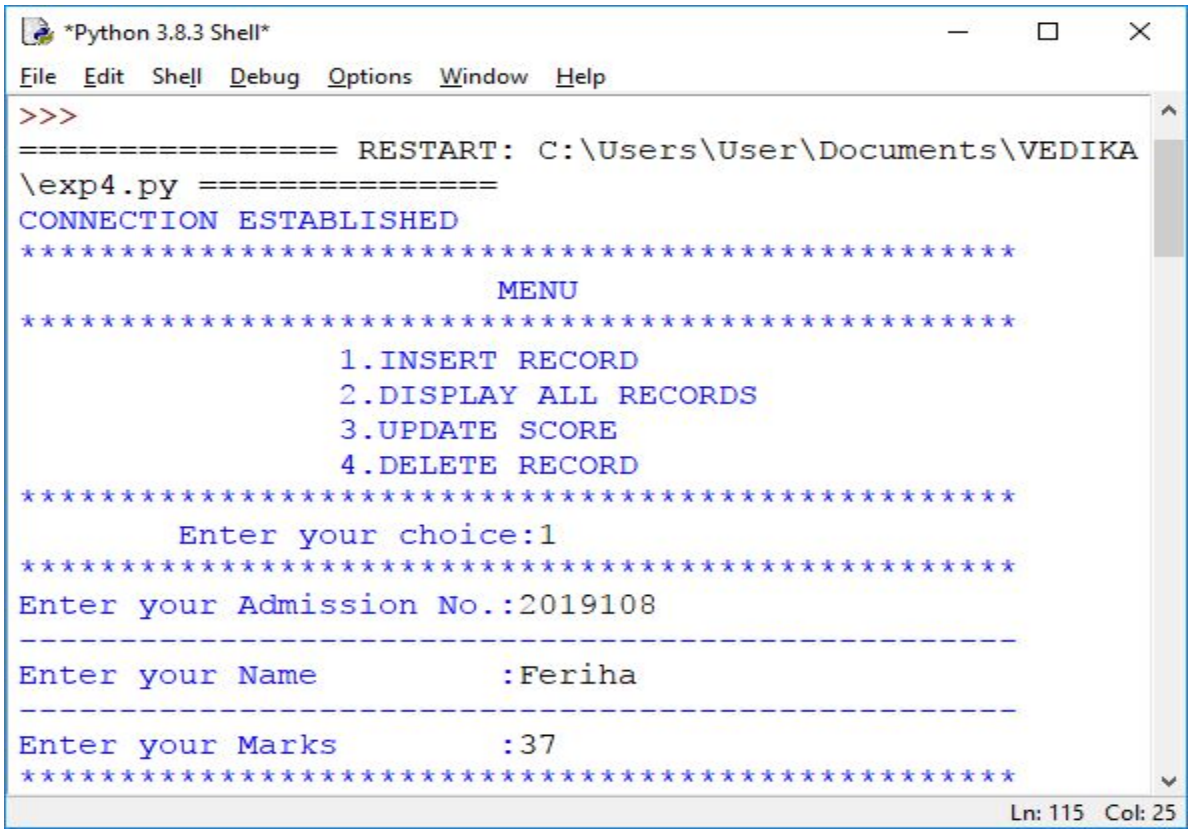
```
            cur.execute(update)
            cur.execute("COMMIT")

    def display():
        display="SELECT * from SCORES"
        cur.execute(display)
        rs=cur.fetchall()
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
        print("\t|  AdmNo. |    NAME   | MARKS |")
        for i in rs:
            print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
            print("\t|",str(i[0]).ljust(7),"|",i[1].ljust(9),"|",str(i[2]).ljust(5),"|")
        print("\t+","-"*7,"+","-"*9,"+","-"*5,"+")
        cur.execute("COMMIT")

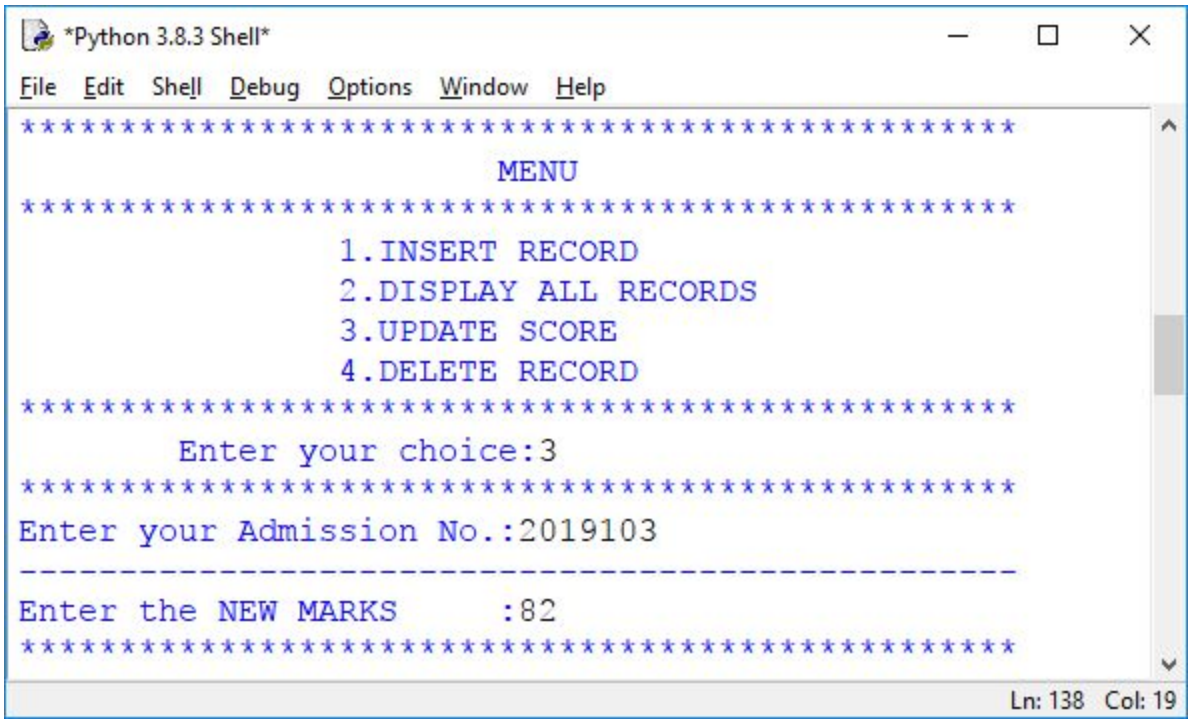
    def delete():
        ad=input("Enter Admno for the record to be deleted:")
        delete="DELETE from SCORES where Admno=" +ad
        cur.execute(delete)
        cur.execute("COMMIT")


choice=1
while choice<=4:
    print("*"*50)
    print("\t\t\tMENU")
    print("*"*50)
    print("\t\t1.INSERT RECORD")
    print("\t\t2.DISPLAY ALL RECORDS")
    print("\t\t3.UPDATE SCORE")
    print("\t\t4.DELETE RECORD")
    print("*"*50)
    choice=int(input("\tEnter your choice:"))
    print("*"*50)
    if choice==1:
        insert()
    if choice==2:
        display()
    if choice==3:
        update()
    if choice==4:
        delete()
```

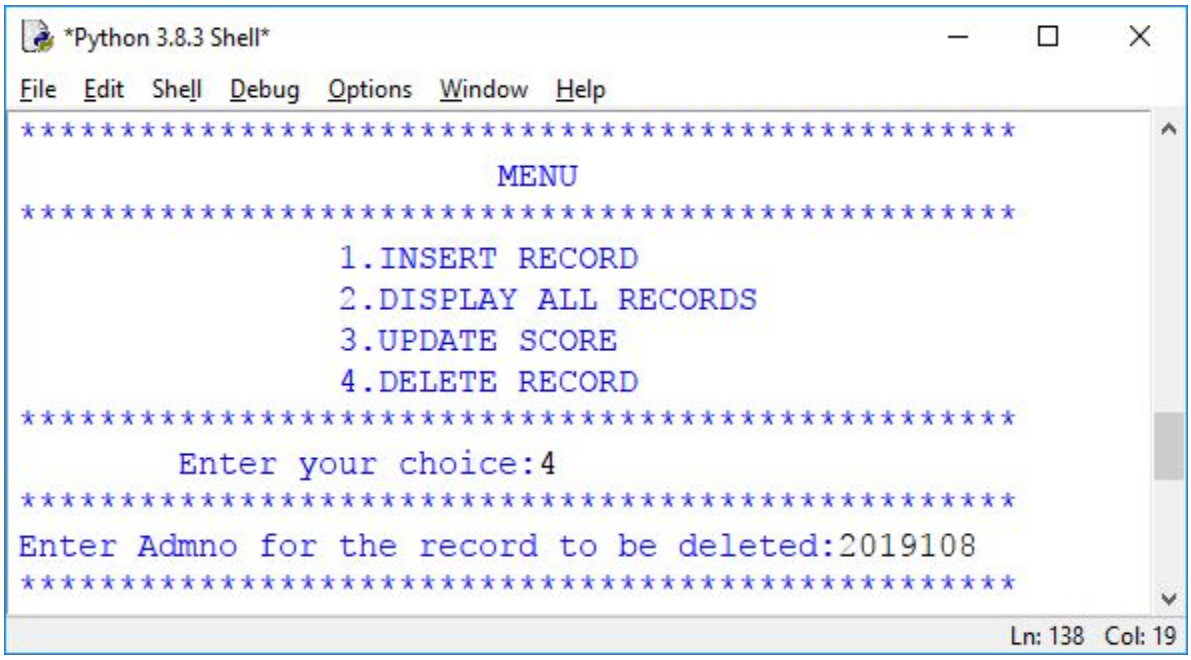
**#OUTPUT:**

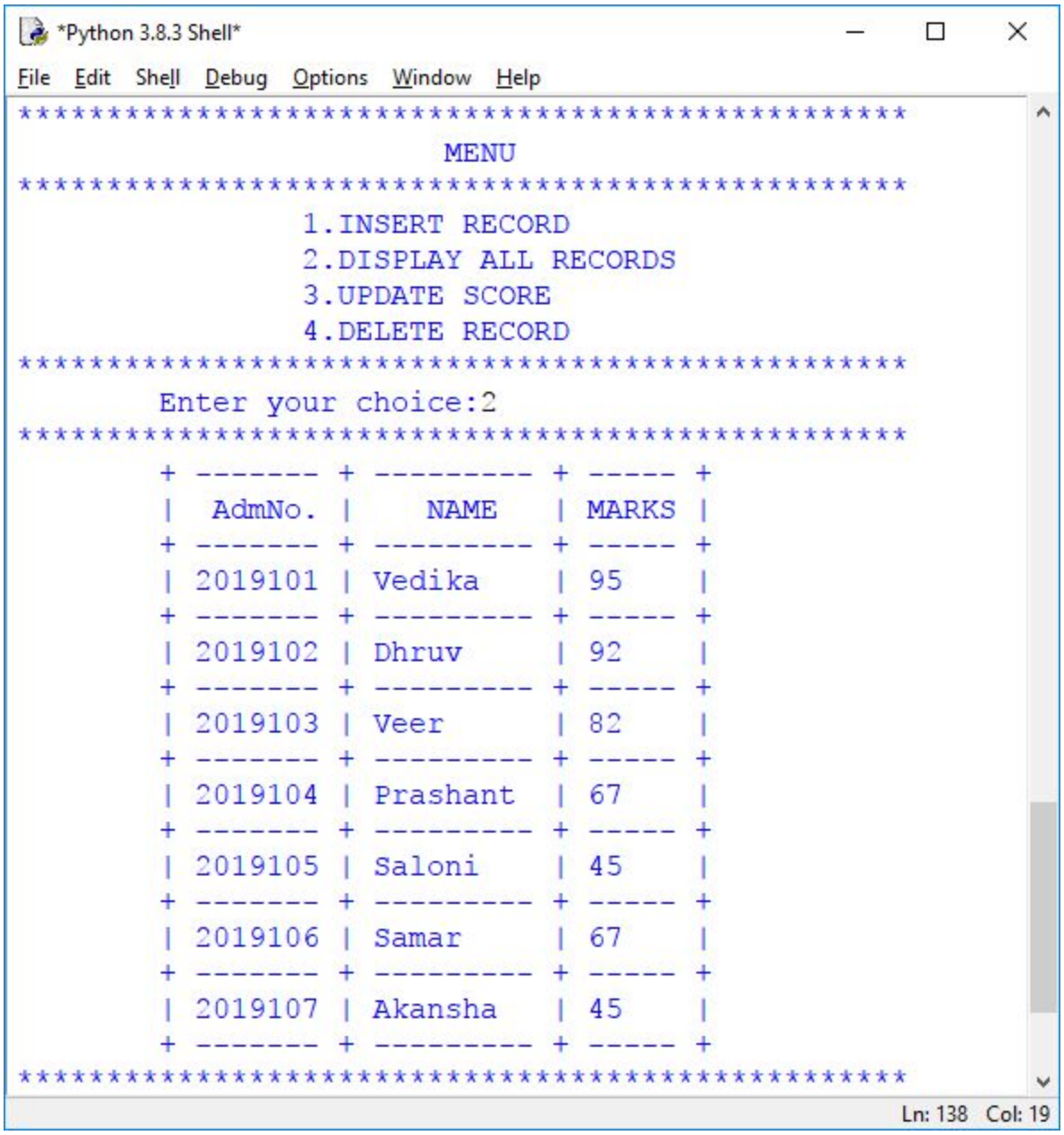

*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\User\Documents\VEDIKA
\exp4.py ==========
CONNECTION ESTABLISHED
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:1
**********
Enter your Admission No.:2019108
---
Enter your Name :Feriha
---
Enter your Marks :37
**********
Ln: 115 Col: 25


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:2
**********
+ ------- + --------- + ----- +
| AdmNo. | NAME | MARKS |
+ ------- + --------- + ----- +
| 2019101 | Vedika | 95 |
+ ------- + --------- + ----- +
| 2019102 | Dhruv | 92 |
+ ------- + --------- + ----- +
| 2019103 | Veer | 86 |
+ ------- + --------- + ----- +
| 2019104 | Prashant | 67 |
+ ------- + --------- + ----- +
| 2019105 | Saloni | 45 |
+ ------- + --------- + ----- +
| 2019106 | Samar | 67 |
+ ------- + --------- + ----- +
| 2019107 | Akansha | 45 |
+ ------- + --------- + ----- +
| 2019108 | Feriha | 37 |
+ ------- + --------- + ----- +
**********
Ln: 138 Col: 19


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:3
**********
Enter your Admission No.:2019103
---
Enter the NEW MARKS :82
**********
Ln: 138 Col: 19


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:2
**********
+ ------- + --------- + ----- +
| AdmNo. | NAME | MARKS |
+ ------- + --------- + ----- +
| 2019101 | Vedika | 95 |
+ ------- + --------- + ----- +
| 2019102 | Dhruv | 92 |
+ ------- + --------- + ----- +
| 2019103 | Veer | 82 |
+ ------- + --------- + ----- +
| 2019104 | Prashant | 67 |
+ ------- + --------- + ----- +
| 2019105 | Saloni | 45 |
+ ------- + --------- + ----- +
| 2019106 | Samar | 67 |
+ ------- + --------- + ----- +
| 2019107 | Akansha | 45 |
+ ------- + --------- + ----- +
| 2019108 | Feriha | 37 |
+ ------- + --------- + ----- +
**********
Ln: 138 Col: 19


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:4
**********
Enter Admno for the record to be deleted:2019108
**********
Ln: 138 Col: 19


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
MENU
**********
1.INSERT RECORD
2.DISPLAY ALL RECORDS
3.UPDATE SCORE
4.DELETE RECORD
**********
Enter your choice:2
**********
+ ------- + --------- + ----- +
| AdmNo. | NAME | MARKS |
+ ------- + --------- + ----- +
| 2019101 | Vedika | 95 |
+ ------- + --------- + ----- +
| 2019102 | Dhruv | 92 |
+ ------- + --------- + ----- +
| 2019103 | Veer | 82 |
+ ------- + --------- + ----- +
| 2019104 | Prashant | 67 |
+ ------- + --------- + ----- +
| 2019105 | Saloni | 45 |
+ ------- + --------- + ----- +
| 2019106 | Samar | 67 |
+ ------- + --------- + ----- +
| 2019107 | Akansha | 45 |
+ ------- + --------- + ----- +
**********
Ln: 138 Col: 19

# EXPERIMENT-5

**AIM:** Stacks- pushing, popping, peeking and traversal.

**TASK:** Create a menu driven program to perform push, pop, peek and traversal in a stack of books.

**#SOURCE CODE:**

```
books=[]

def push(books):
    bk=input("Enter the name of the Book:")
    books.append(bk)
    print("-"*50)
    print(books)

def pop(books):
    if books==[]:
        print("Stack UNDERFLOW")
    else:
        rm=books.pop()
        print(rm,"Book is removed!!")

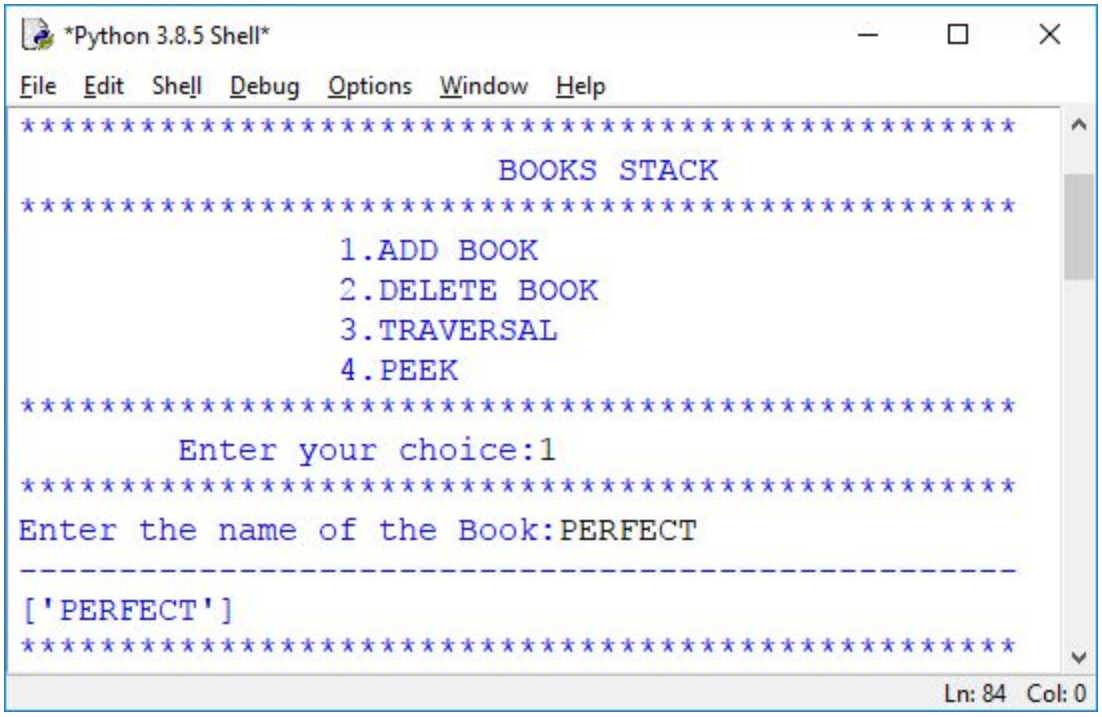
def traversal(books):
    n=len(books)
    for i in range(n-1,-1,-1):
        print(books[i])
        print("-"*50)

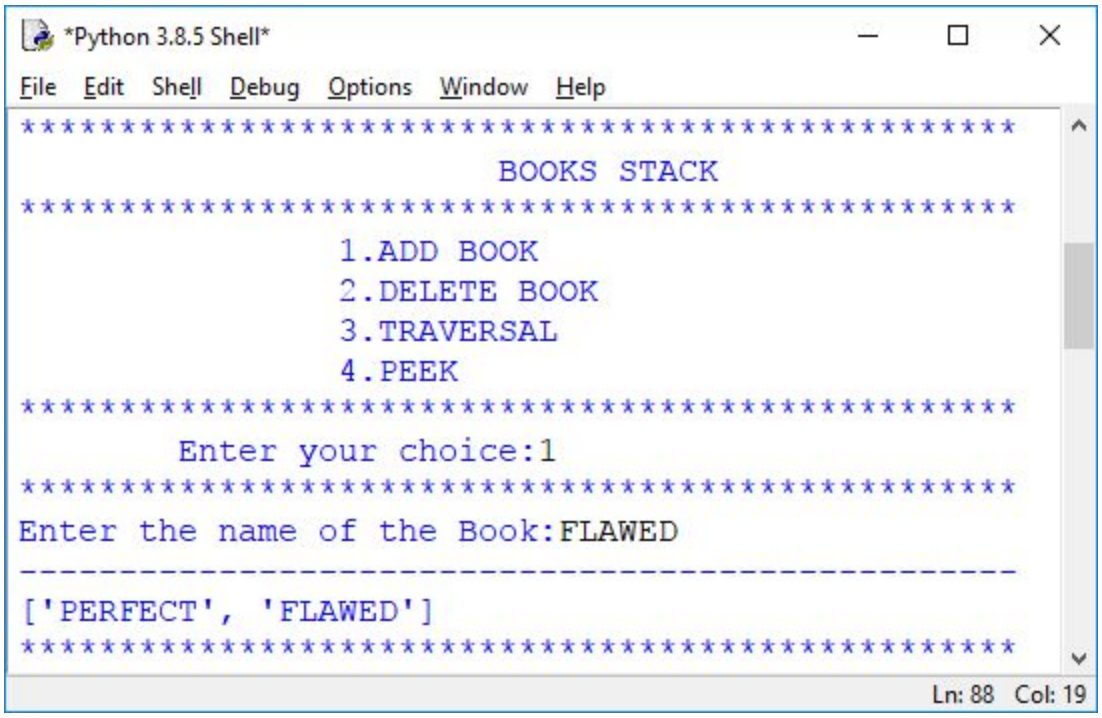
def peek(books):
    if books==[]:
        print("Stack UNDERFLOW")
    else:
        top=books[-1]
        print("Top most book:",top)

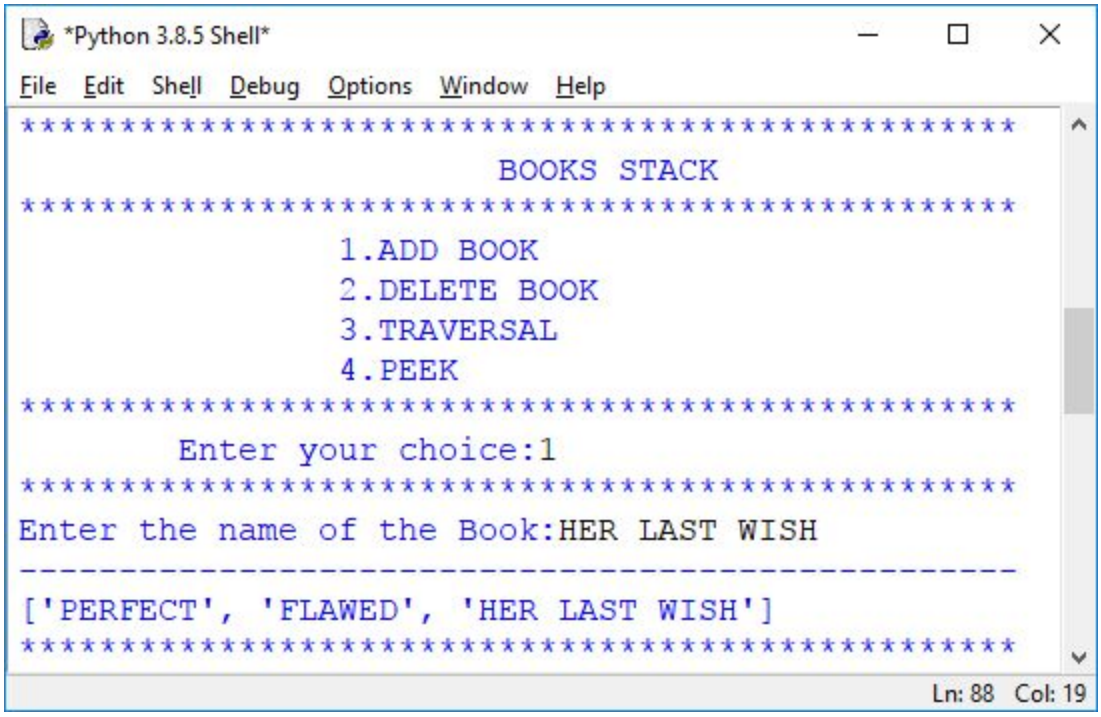
choice=1
while choice<=4:
    print("*"*50)
    print("\t\t\tBOOKS STACK")
    print("*"*50)
    print("\t\t1.ADD BOOK")
    print("\t\t2.DELETE BOOK")
```

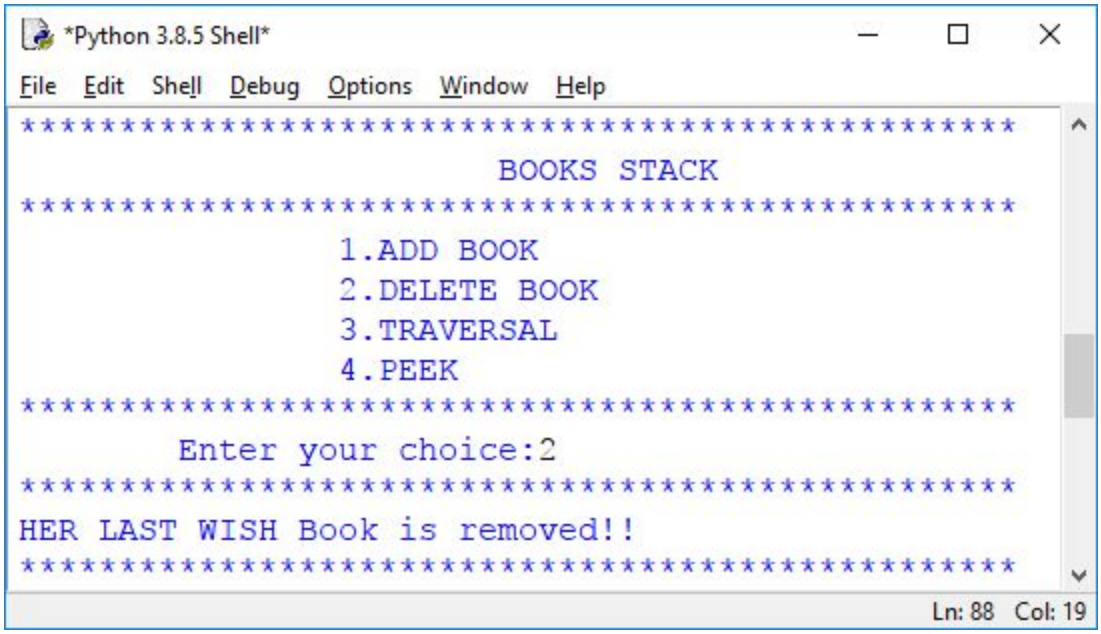
```
print("\t\t3.TRAVERSAL")
print("\t\t4.PEEK")
print("*"*50)
choice=int(input("\tEnter your choice:"))
print("*"*50)
if choice==1:
    push(books)
if choice==2:
    pop(books)
if choice==3:
    traversal(books)
if choice==4:
    peek(books)
```

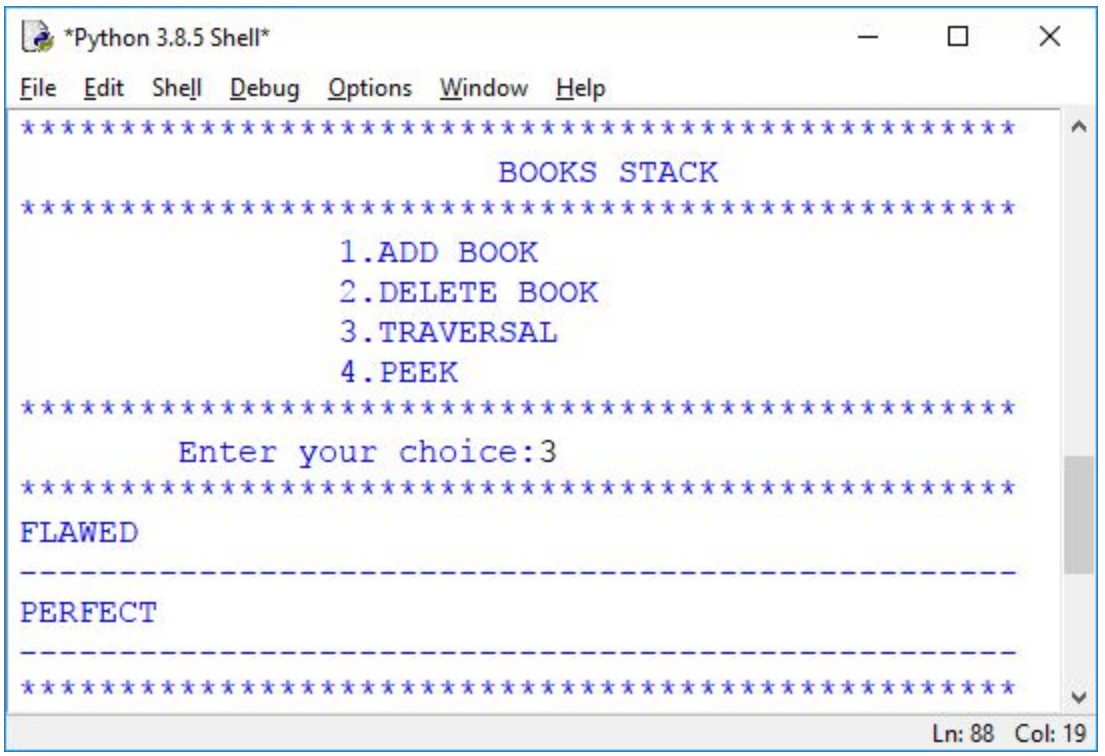
**#OUTPUT:**

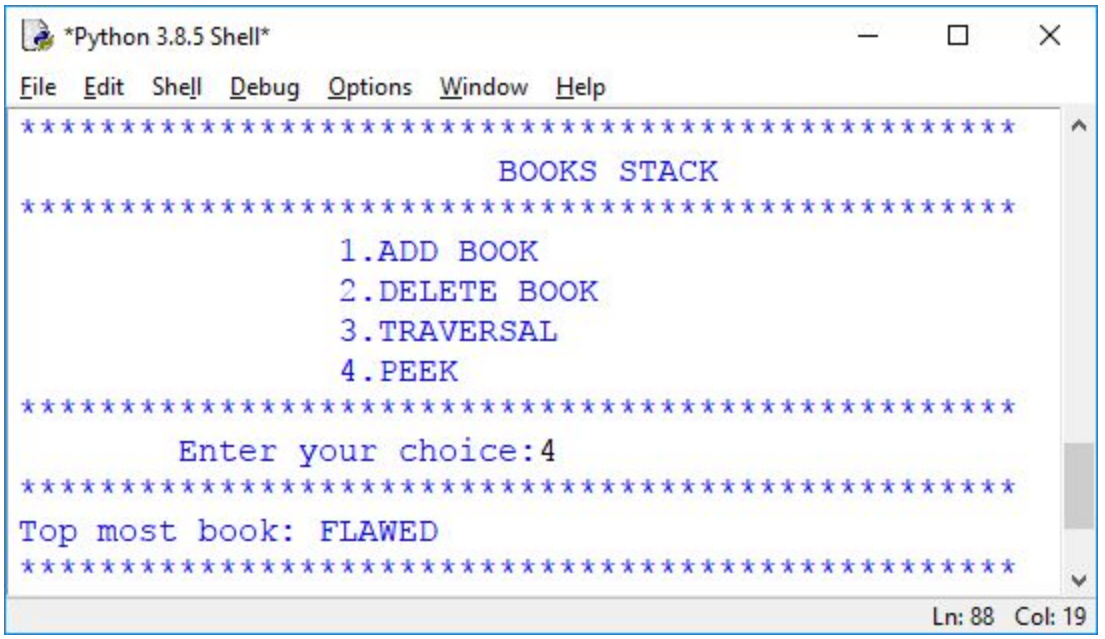

*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:1
**********
Enter the name of the Book:PERFECT
['PERFECT']
**********
Ln: 84 Col: 0


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:1
**********
Enter the name of the Book:FLAWED
['PERFECT', 'FLAWED']
**********
Ln: 88 Col: 19


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:1
**********
Enter the name of the Book:HER LAST WISH
['PERFECT', 'FLAWED', 'HER LAST WISH']
**********
Ln: 88 Col: 19


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:2
**********
HER LAST WISH Book is removed!!
**********
Ln: 88 Col: 19


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:3
**********
FLAWED
---
PERFECT
---
**********
Ln: 88 Col: 19


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
BOOKS STACK
**********
1.ADD BOOK
2.DELETE BOOK
3.TRAVERSAL
4.PEEK
**********
Enter your choice:4
**********
Top most book: FLAWED
**********
Ln: 88 Col: 19

# EXPERIMENT-6

**AIM:** Queues- enqueue, dequeue.

**TASK:** Create a menu driven program to perform enqueue and dequeue in a list of customers.

**#SOURCE CODE:**

```
cust=[]

def add(cust):
    name=input("\tEnter Customer Name:")
    cust.append(name)
    print("-"*50)
    print("Your Custome list:",cust)

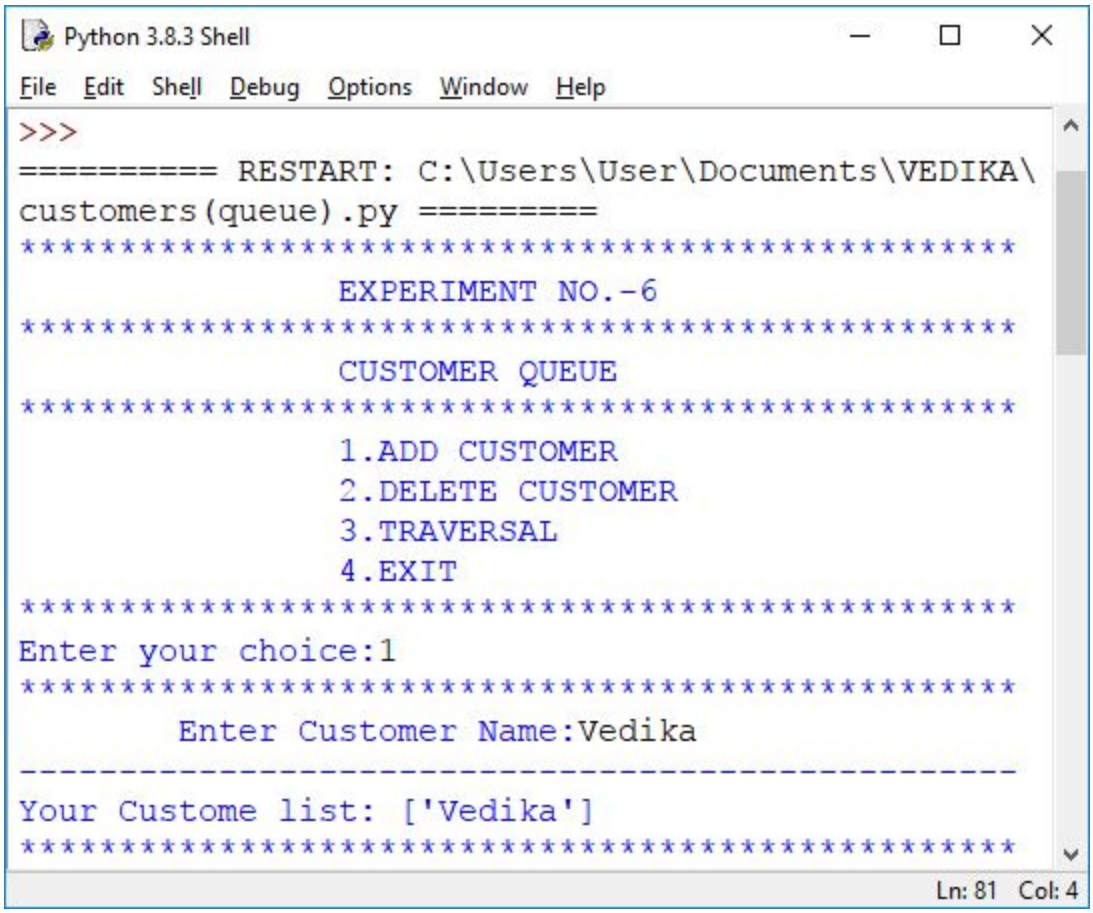
def delete(cust):
    if cust==[]:
        print("\tSorry!!Queue is EMPTY..")
    else:
        cm=cust.pop(0)
        print("\tCustomer Exiting:",cm)
        print("-"*50)
        print("Current Queue:",cust)

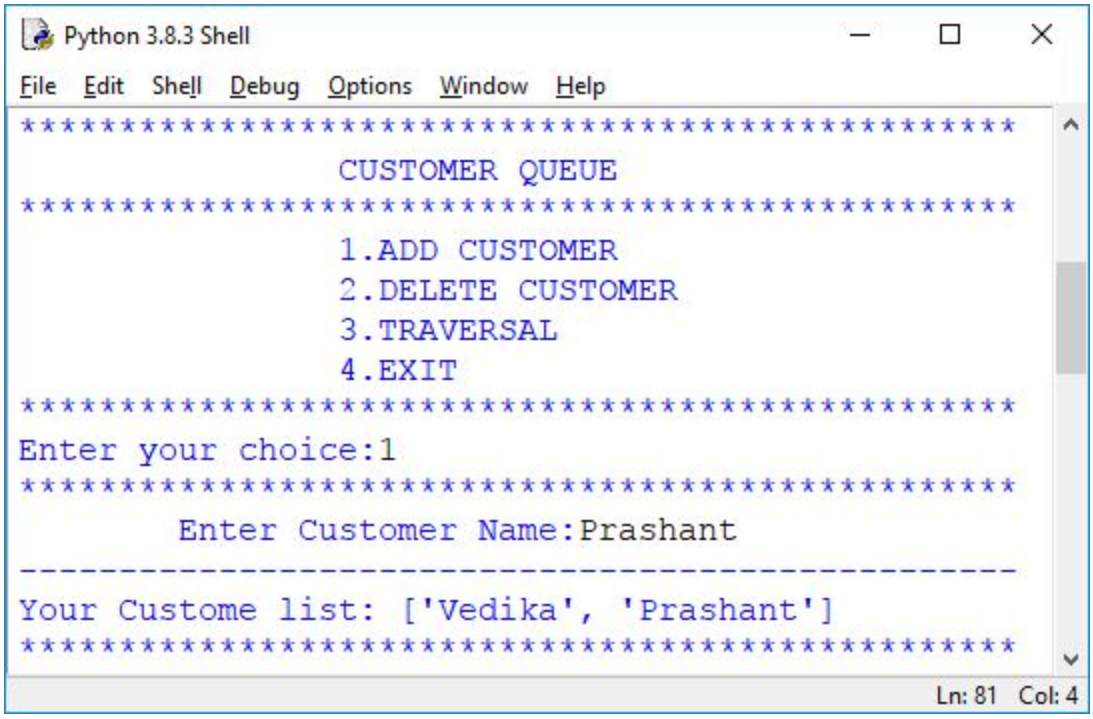
def traversal(cust):
    n=len(cust)
    for i in range(n-1,-1,-1):
        print(cust[i])

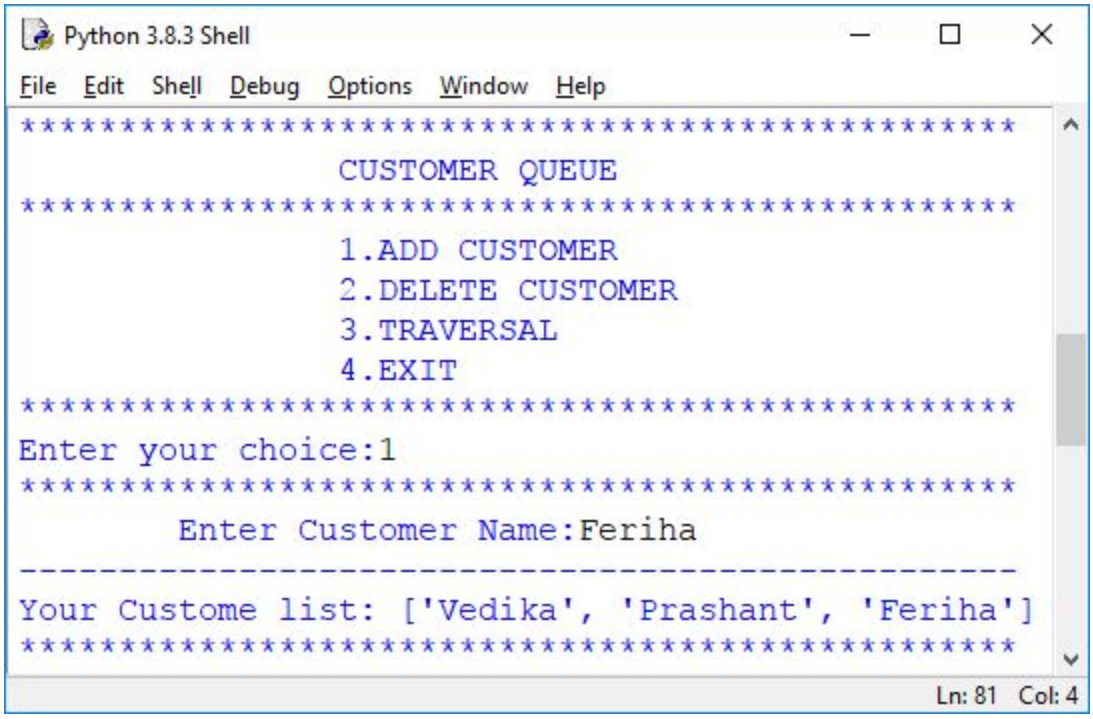
print("*"*50)
print("\t\tEXPERIMENT NO.-6")
choice=1
while choice<=4:
    print("*"*50)
    print("\t\tCUSTOMER QUEUE")
    print("*"*50)
    print("\t\t1.ADD CUSTOMER")
    print("\t\t2.DELETE CUSTOMER")
    print("\t\t3.TRAVERSAL")
    print("\t\t4.EXIT")
    print("*"*50)
    choice=int(input("Enter your choice:"))
```

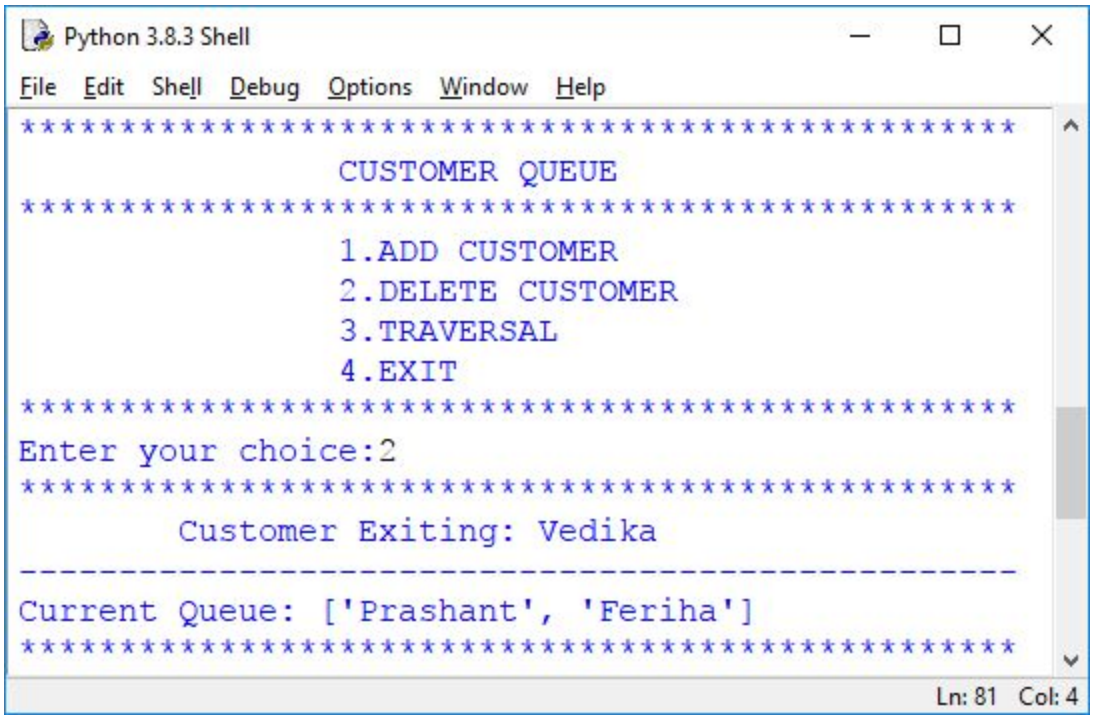
```
print("*"*50)
if choice==1:
    add(cust)
if choice==2:
    delete(cust)
if choice==3:
    traversal(cust)
if choice==4:
    break
```

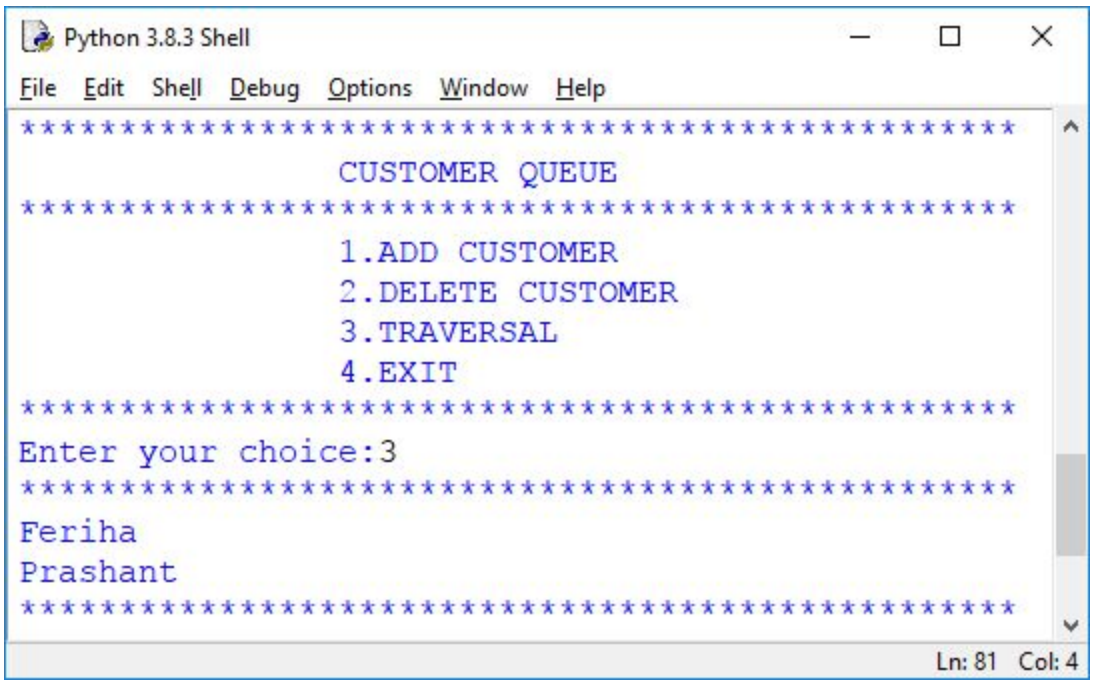
**#OUTPUT:**

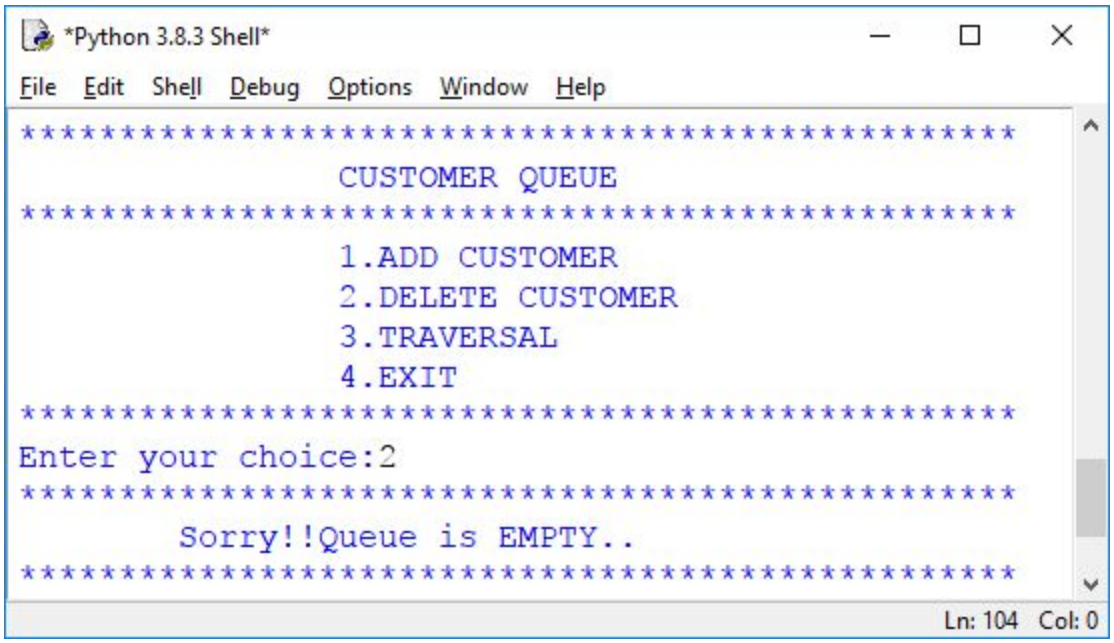

Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\User\Documents\VEDIKA\
customers(queue).py =========
**********
EXPERIMENT NO.-6
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:1
**********
Enter Customer Name:Vedika
---
Your Custome list: ['Vedika']
**********
Ln: 81 Col: 4


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:1
**********
Enter Customer Name:Prashant
---
Your Custome list: ['Vedika', 'Prashant']
**********
Ln: 81 Col: 4


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:1
**********
Enter Customer Name:Feriha
---
Your Custome list: ['Vedika', 'Prashant', 'Feriha']
**********
Ln: 81 Col: 4


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:2
**********
Customer Exiting: Vedika
---
Current Queue: ['Prashant', 'Feriha']
**********
Ln: 81 Col: 4


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:3
**********
Feriha
Prashant
**********
Ln: 81 Col: 4


*Python 3.8.3 Shell*
File Edit Shell Debug Options Window Help
**********
CUSTOMER QUEUE
**********
1.ADD CUSTOMER
2.DELETE CUSTOMER
3.TRAVERSAL
4.EXIT
**********
Enter your choice:2
**********
Sorry!!Queue is EMPTY..
**********
Ln: 104 Col: 0

# EXPERIMENT-7

**AIM:** Application of Stacks.

**TASK:** Write a program to enter a string and reverse it using stack operations..

**#SOURCE CODE:**

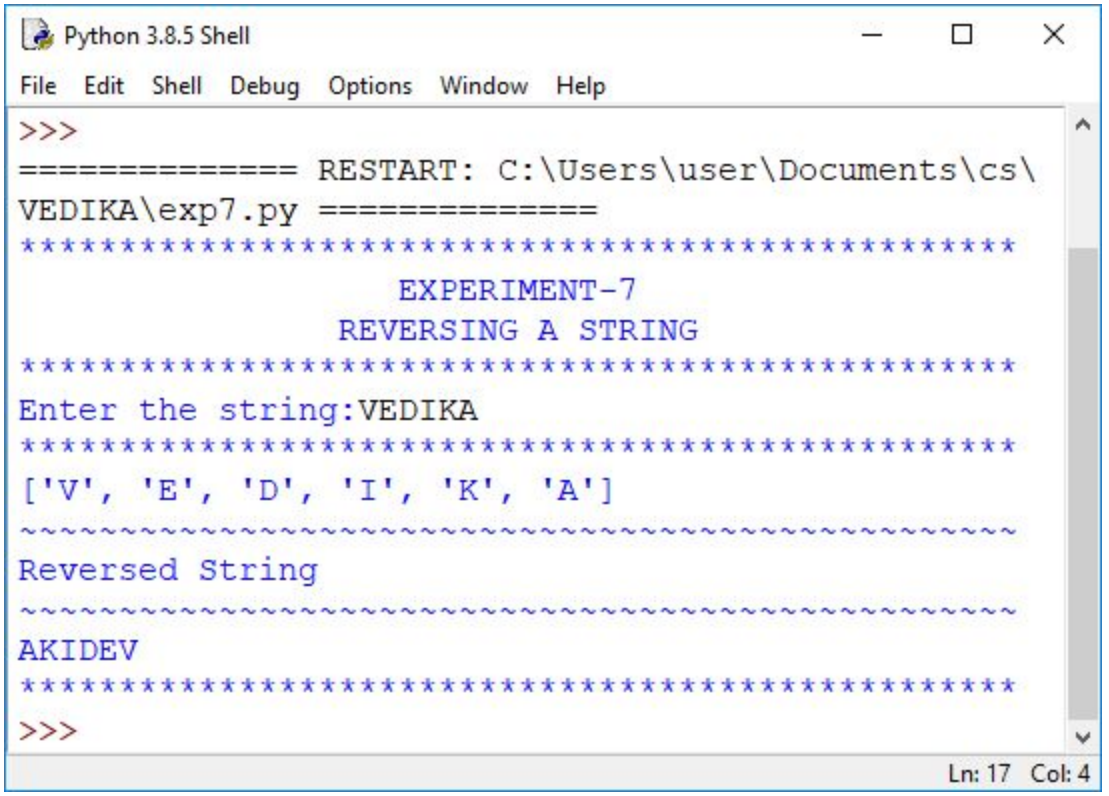
```
stack=[]

def push():
    global stack
    string=input("Enter the string:")
    print("*"*50)
    stack=list(string)
    print(stack)
    print("~"*50)

def reversing():
    if stack==[]:
        print("Stack Underflow")
    else:
        print("Reversed String")
        print("~"*50)
        for i in stack[::-1]:
            print(i,end="")
        print()
    print("*"*50)

print("*"*50)
print("\t\t   EXPERIMENT-7\n\t\tREVERSING A STRING")
print("*"*50)
push()
reversing()
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp7.py ==========
**********
EXPERIMENT-7
REVERSING A STRING
**********
Enter the string:VEDIKA
**********
['V', 'E', 'D', 'I', 'K', 'A']
~~~~~~~~~~
Reversed String
~~~~~~~~~~
AKIDEV
**********
>>>
Ln: 17 Col: 4

# EXPERIMENT-8

**AIM:** Performing create, append and display functions.

**TASK:** Write a menu driven program to read a file line by line and display the dictionary using utf-8.

**#SOURCE CODE:**

```
def create():
    with open("hinglish.txt","w",encoding="utf-8") as F:
        engword=input("Enter the English Word :")
        hindiword=input("Enter the Hindi Word   :")
        data="\t    "+hindiword+"\t:\t  "+engword
        F.writelines(data)

def display():
    with open("hinglish.txt","r",encoding="utf-8") as F:
        text=F.read()
        print("_"*50)
        print("\t  HINDI WORD\t\tENGLISH WORD")
        print("_"*50)
        for i in text:
            print(i,end="")
        print()

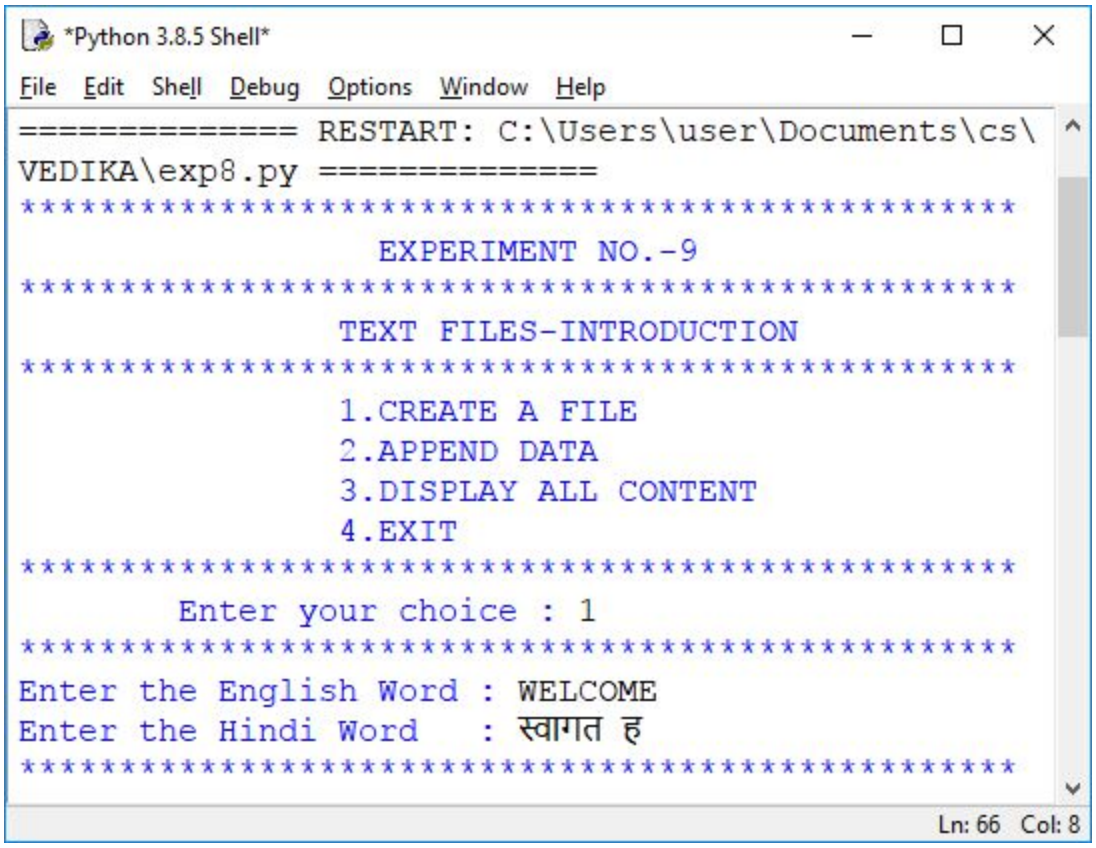
def append():
    with open("hinglish.txt","a",encoding="utf-8") as F:
        n=int(input("Enter the number of words:"))
        for i in range(n):
            print("*"*50)
            engword=input("Enter the English Word :")
            hindiword=input("Enter the Hindi Word   :")
            data="\n"+"\t    "+hindiword+"\t:\t  "+engword
            F.write(data)

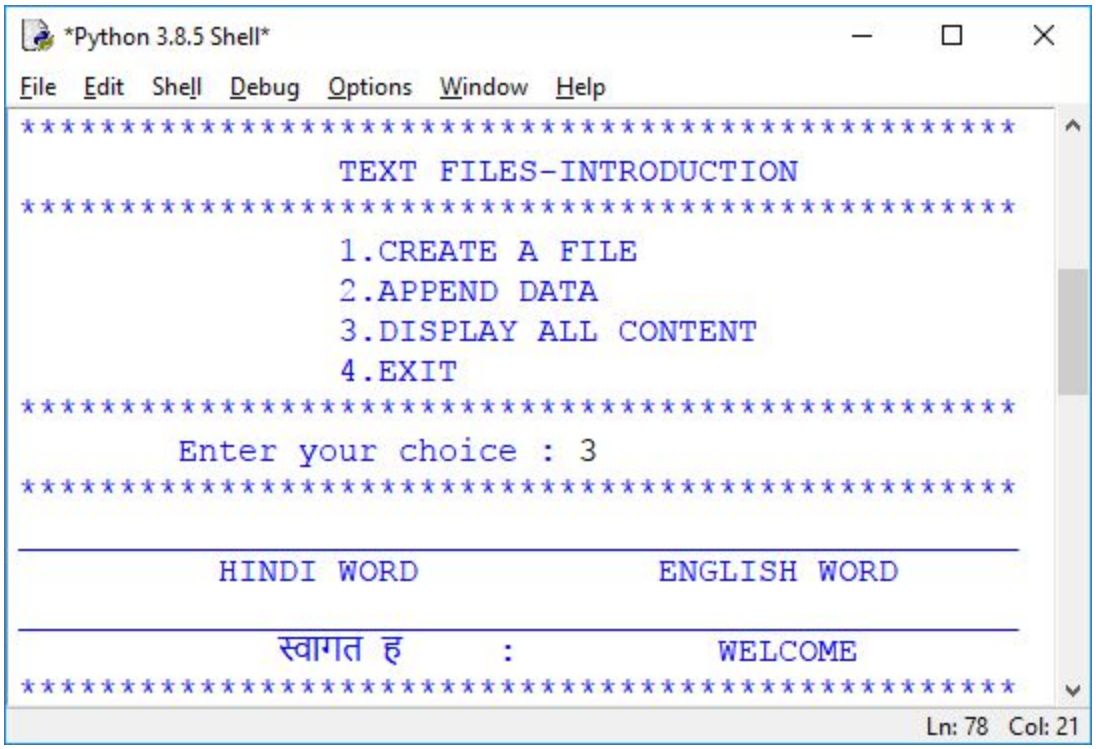
print("*"*50)
print("\t\t  EXPERIMENT NO.-9")
choice=1
while choice<=4:
    print("*"*50)
    print("\t\tTEXT FILES-INTRODUCTION")
    print("*"*50)
```

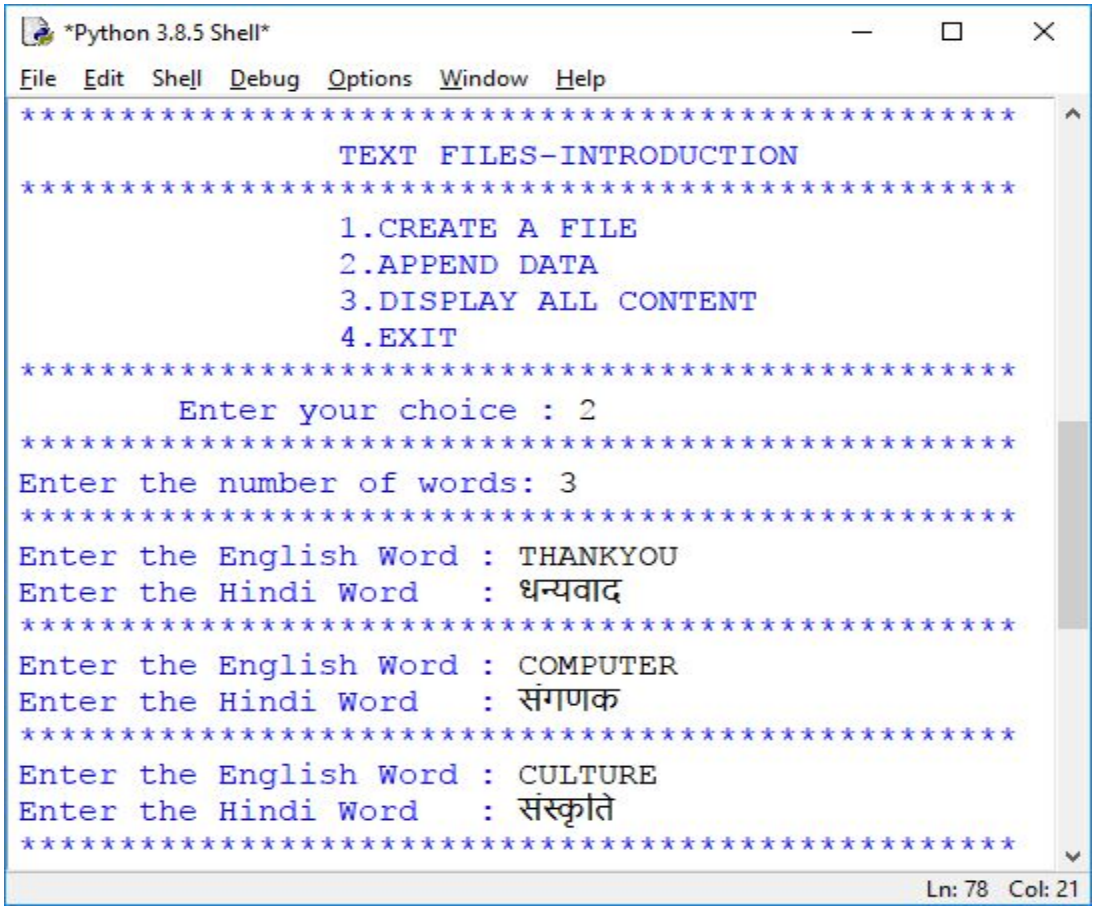
```
print("\t\t1.CREATE A FILE")
print("\t\t2.APPEND DATA")
print("\t\t3.DISPLAY ALL CONTENT")
print("\t\t4.EXIT")
print("*"*50)
choice=int(input("\tEnter your choice : "))
print("*"*50)
if choice==1:
    create()
if choice==2:
    append()
if choice==3:
    display()
if choice==4:
    break
```

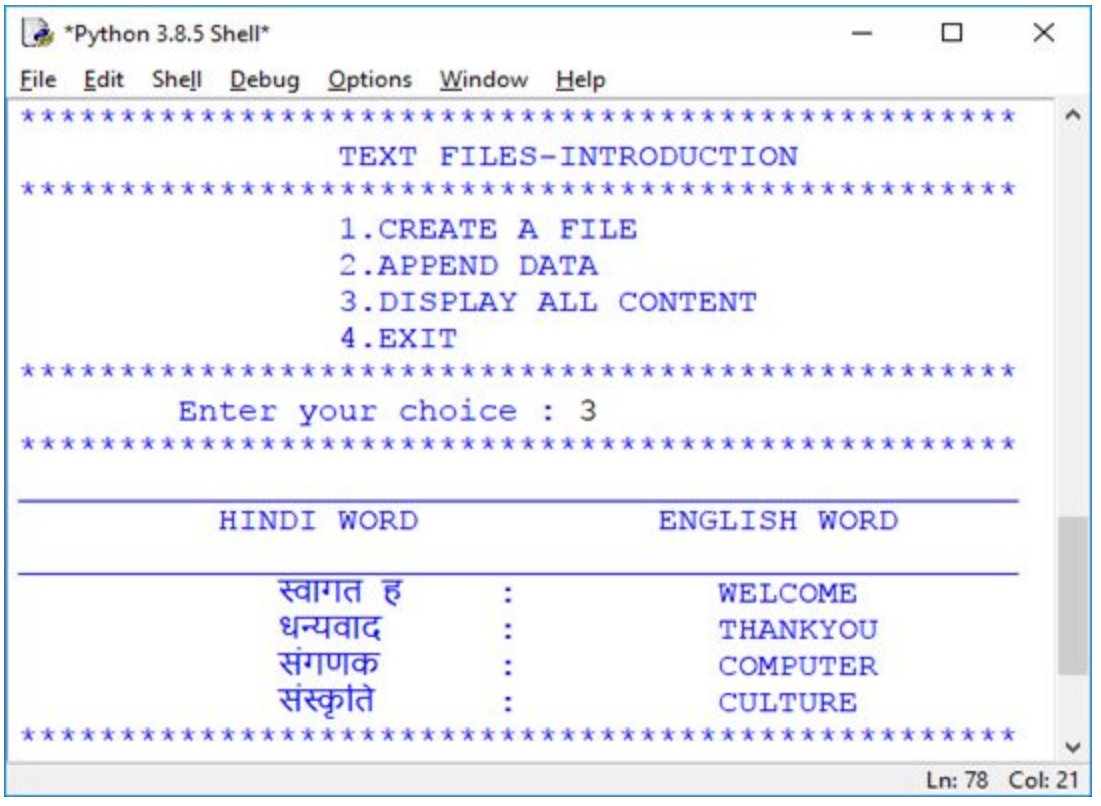
---

**#OUTPUT:**


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp8.py ==========
**********
EXPERIMENT NO.-9
**********
TEXT FILES-INTRODUCTION
**********
1.CREATE A FILE
2.APPEND DATA
3.DISPLAY ALL CONTENT
4.EXIT
**********
Enter your choice : 1
**********
Enter the English Word : WELCOME
Enter the Hindi Word : स्वागत ह
**********
Ln: 66 Col: 8


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
TEXT FILES-INTRODUCTION
**********
1.CREATE A FILE
2.APPEND DATA
3.DISPLAY ALL CONTENT
4.EXIT
**********
Enter your choice : 3
**********
HINDI WORD ENGLISH WORD
स्वागत ह : WELCOME
**********
Ln: 78 Col: 21


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
TEXT FILES-INTRODUCTION
**********
1.CREATE A FILE
2.APPEND DATA
3.DISPLAY ALL CONTENT
4.EXIT
**********
Enter your choice : 2
**********
Enter the number of words: 3
**********
Enter the English Word : THANKYOU
Enter the Hindi Word : धन्यवाद
**********
Enter the English Word : COMPUTER
Enter the Hindi Word : संगणक
**********
Enter the English Word : CULTURE
Enter the Hindi Word : संस्कृति
**********
Ln: 78 Col: 21


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
TEXT FILES-INTRODUCTION
**********
1.CREATE A FILE
2.APPEND DATA
3.DISPLAY ALL CONTENT
4.EXIT
**********
Enter your choice : 3
**********
HINDI WORD ENGLISH WORD
स्वागत ह : WELCOME
धन्यवाद : THANKYOU
संगणक : COMPUTER
संस्कृति : CULTURE
**********
Ln: 78 Col: 21

# EXPERIMENT-9

**AIM:** Understanding read() function.

**TASK:** Write a menu driven program to count the number of vowels/ consonants/ uppercase/ lowercase in the file.

**#SOURCE CODE:**

```
def vowels():
    with open("SAMPLE.txt","r") as F:
        a=F.read()
        v=0
        for i in a:
            if i in "aeiouAEIOU":
                v=v+1
        print("The number of VOWELS in the text file are:",v)

def consonants():
    with open("SAMPLE.txt","r") as F:
        a=F.read()
        c=0
        for i in a:
            if i not in "aeiouAEIOU" and i!=" ":
                c=c+1
        print("The number of CONSONANTS in the text file are:",c)

def uppercase():
    with open("SAMPLE.txt","r") as F:
        a=F.read()
        u=0
        for i in a:
            if i.isupper():
                u=u+1
        print("The number of UPPERCASE CHARACTERS in the text file are:",u)

def lowercase():
    with open("SAMPLE.txt","r") as F:
        a=F.read()
        l=0
        for i in a:
            if i.islower():
                l=l+1
```

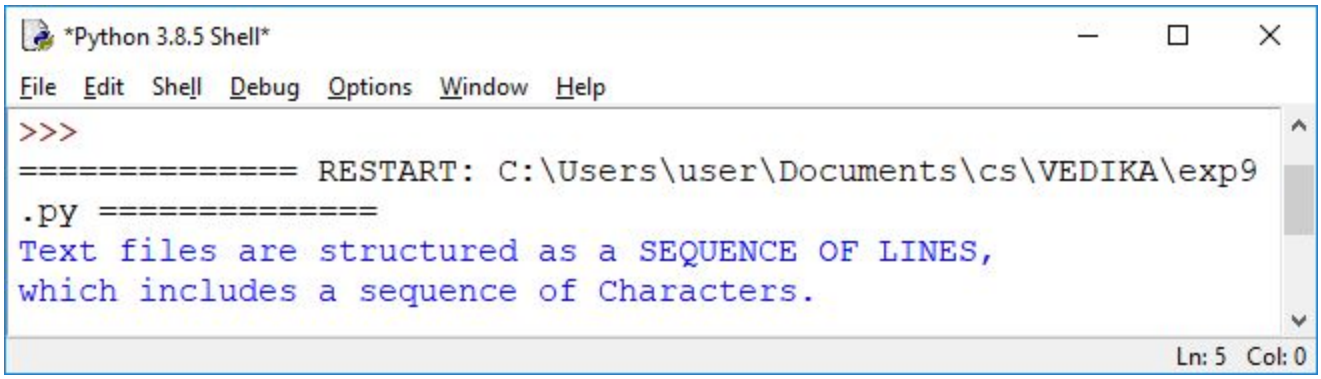
```
        print("The number of LOWERCASE CHARACTERS in the text file are:",l)

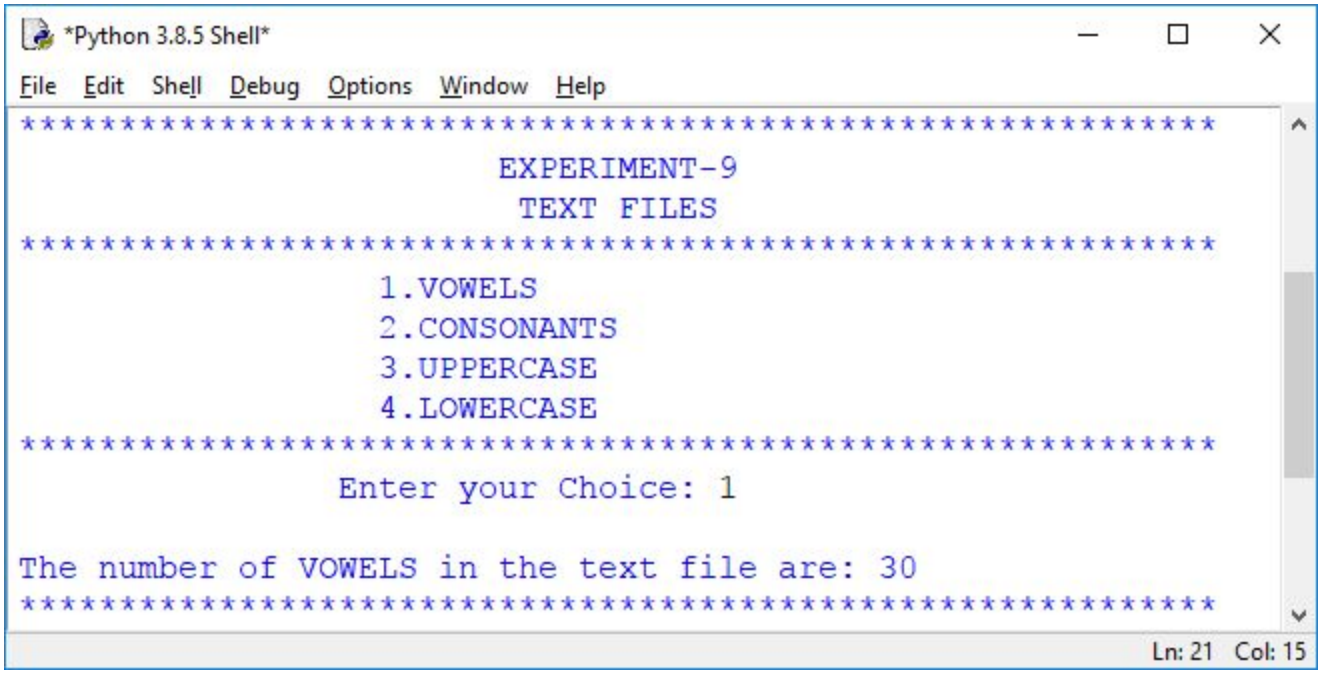
def display(x):
    F3=open(x,"r")
    string=F3.read()
    print(string)

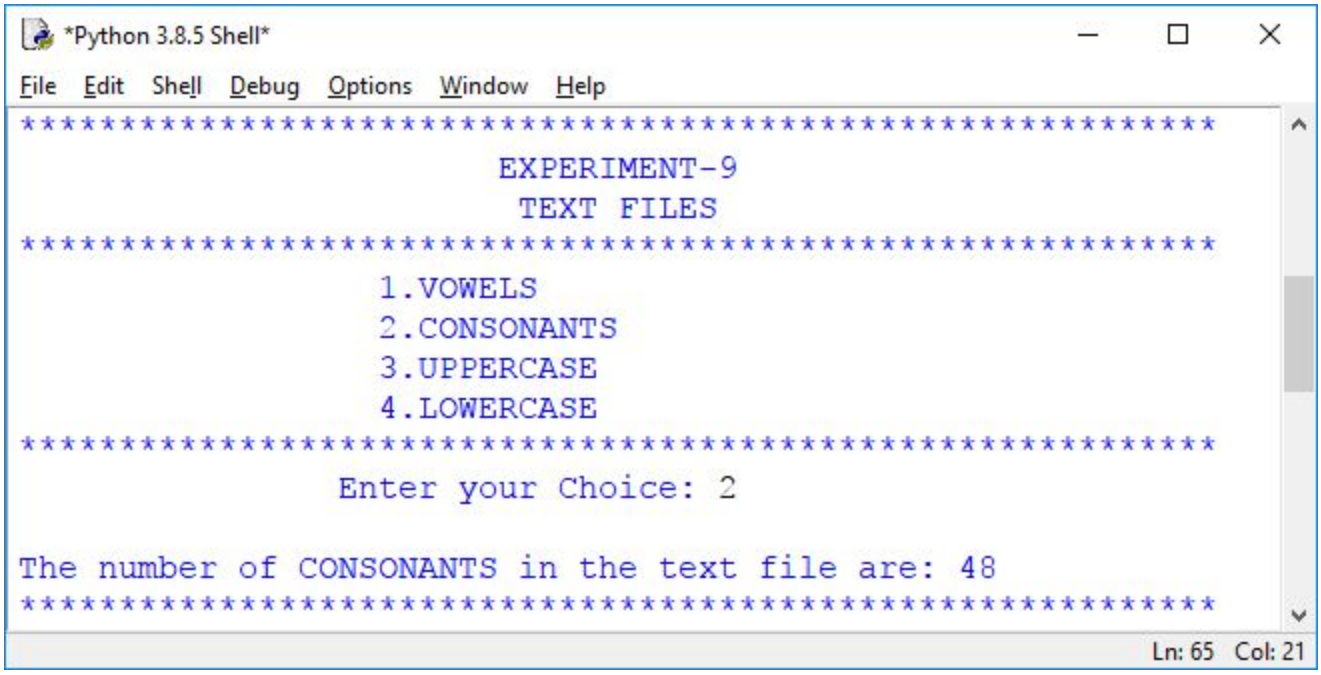
display("SAMPLE.txt")

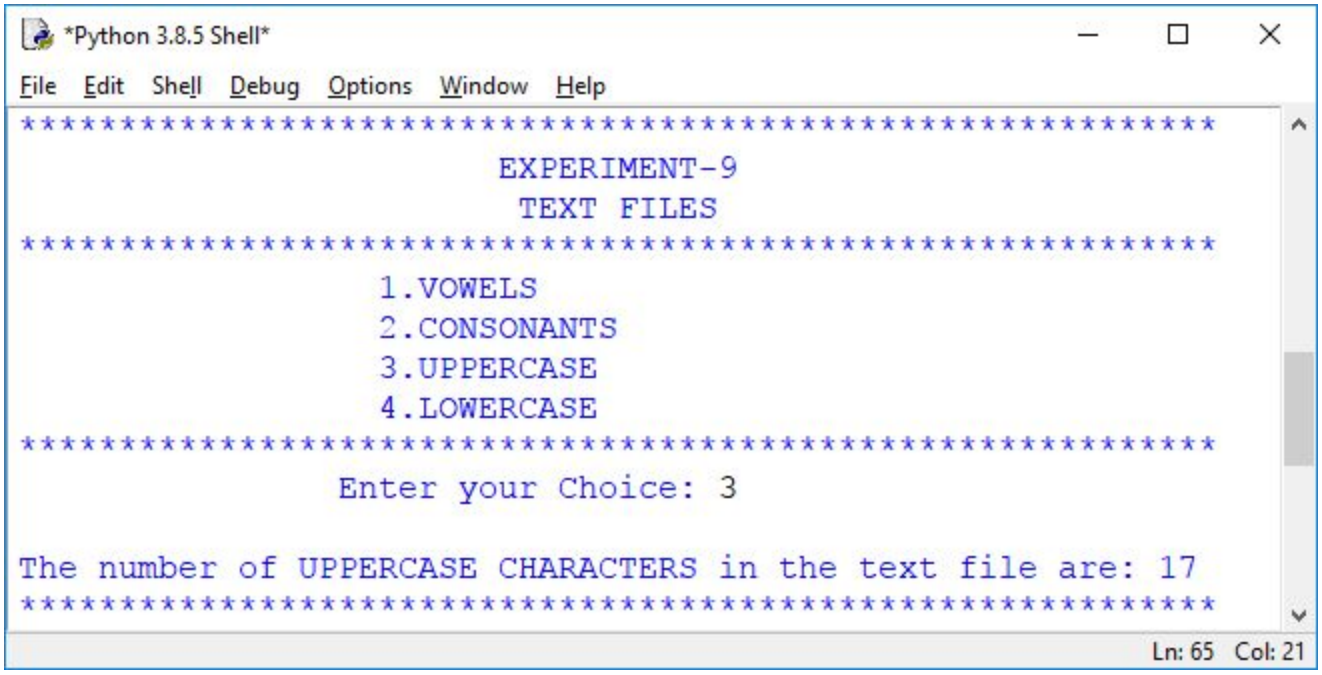
choice=1
while choice<=4:
    print("*"*60)
    print("\t\t\tEXPERIMENT-9\n\t\t\t TEXT FILES")
    print("*"*60)
    print("\t\t  1.VOWELS")
    print("\t\t  2.CONSONANTS")
    print("\t\t  3.UPPERCASE")
    print("\t\t  4.LOWERCASE")
    print("*"*60)
    choice=int(input("\t\tEnter your Choice: "))
    print()
    if choice==1:
        vowels()
    elif choice==2:
        consonants()
    elif choice==3:
        uppercase()
    elif choice==4:
        lowercase()
    else:
        print("\t\tSORRY! Invalid choice")
```

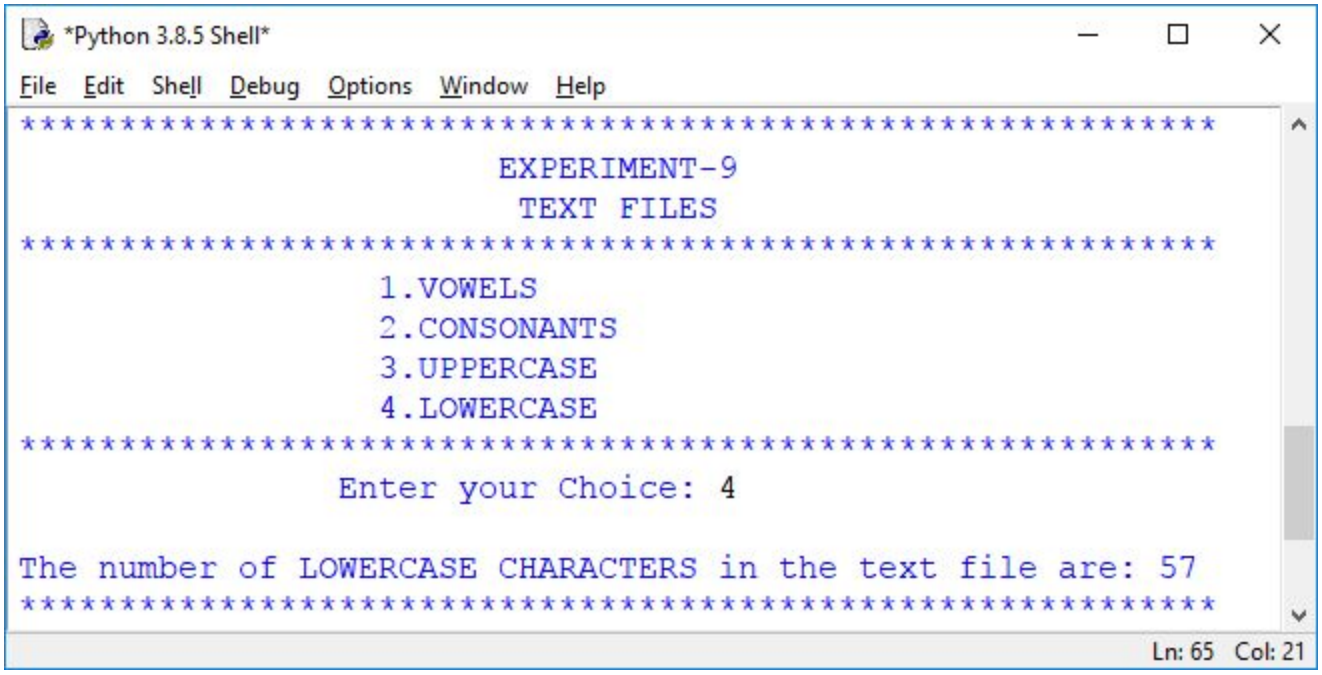
**#OUTPUT:**


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\VEDIKA\exp9
.py ==========
Text files are structured as a SEQUENCE OF LINES,
which includes a sequence of Characters.
Ln: 5 Col: 0


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-9
TEXT FILES
**********
1.VOWELS
2.CONSONANTS
3.UPPERCASE
4.LOWERCASE
**********
Enter your Choice: 1
The number of VOWELS in the text file are: 30
**********
Ln: 21 Col: 15


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-9
TEXT FILES
**********
1.VOWELS
2.CONSONANTS
3.UPPERCASE
4.LOWERCASE
**********
Enter your Choice: 2
The number of CONSONANTS in the text file are: 48
**********
Ln: 65 Col: 21


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-9
TEXT FILES
**********
1.VOWELS
2.CONSONANTS
3.UPPERCASE
4.LOWERCASE
**********
Enter your Choice: 3
The number of UPPERCASE CHARACTERS in the text file are: 17
**********
Ln: 65 Col: 21


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-9
TEXT FILES
**********
1.VOWELS
2.CONSONANTS
3.UPPERCASE
4.LOWERCASE
**********
Enter your Choice: 4
The number of LOWERCASE CHARACTERS in the text file are: 57
**********
Ln: 65 Col: 21

# EXPERIMENT-10

**AIM:** Understanding readline() and split.

**TASK:** Create a program to read a text file line by line and display each word separated by a '#',

**#SOURCE CODE:**

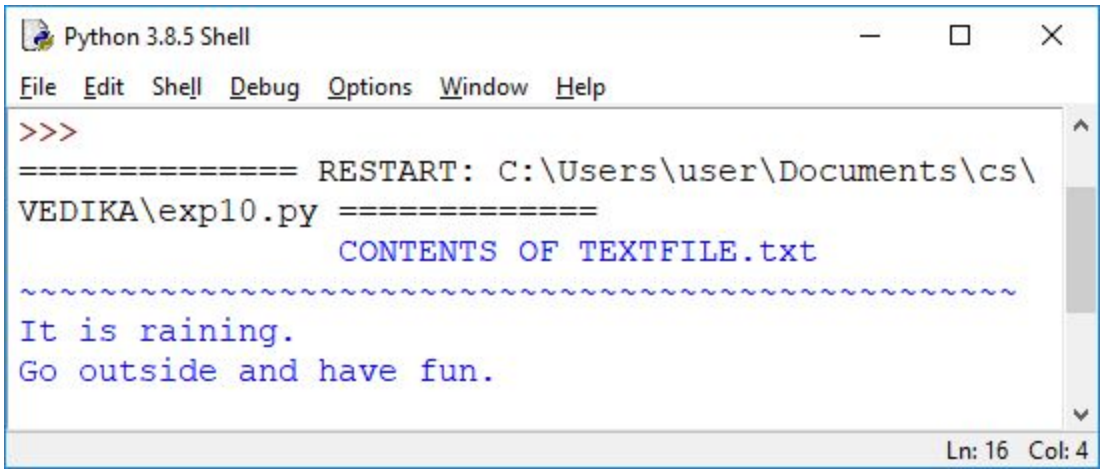
```
def hashtag():
    F= open("TEXTFILE.txt","r")
    List1= F.readline()
    List2=[]
    while List1!="":
        List2= List1.split()
        for i in List2:
            print(i,end="#")
        List1= F.readline()
    F.close()

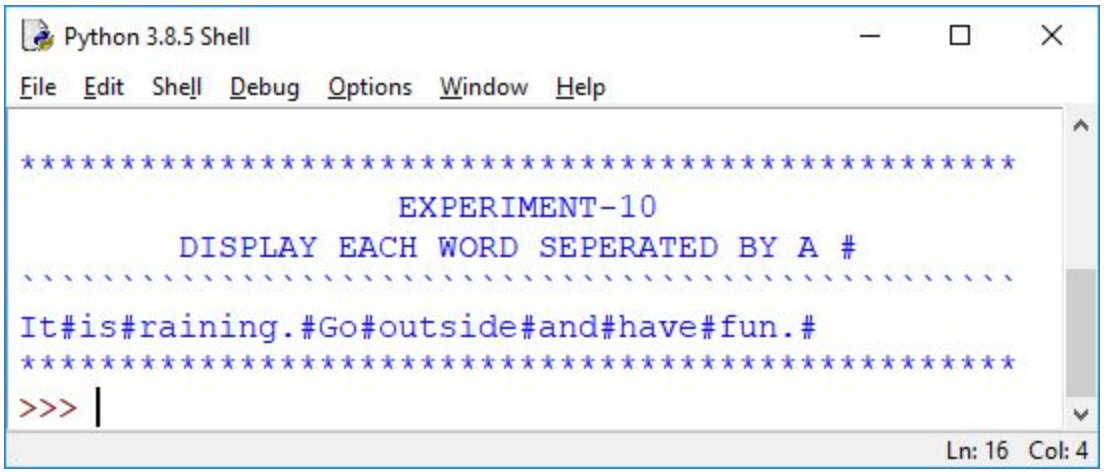
def display(x):
    F3=open(x,"r")
    string=F3.read()
    print("~"*50)
    print(string)

print("\t\tCONTENTS OF TEXTFILE.txt")
display("TEXTFILE.txt")

print("*"*50)
print("\t\t   EXPERIMENT-10\n\tDISPLAY EACH WORD SEPERATED BY A #")
print("`"*50)
hashtag()
print()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp10.py ==========
CONTENTS OF TEXTFILE.txt
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
It is raining.
Go outside and have fun.
Ln: 16 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-10
DISPLAY EACH WORD SEPERATED BY A #
`````````
It#is#raining.#Go#outside#and#have#fun.#
**********
>>>
Ln: 16 Col: 4
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# EXPERIMENT-11

**AIM:** Understanding readlines() and split.

**TASK:** Create a program to read a text file and print those lines ending with ',' or '.'

**#SOURCE CODE:**

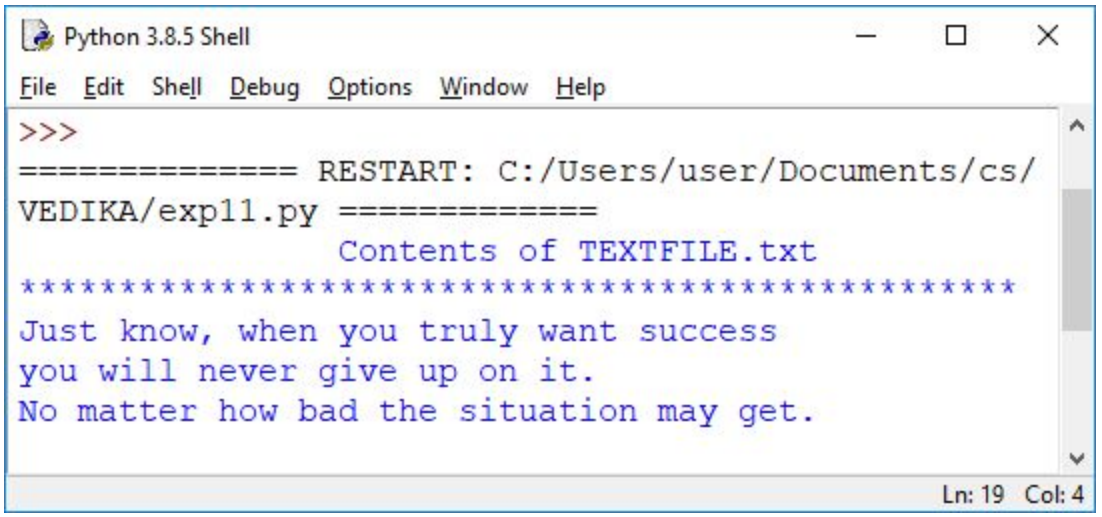
```
def stopcomma():
    F= open("TEXTFILE.txt","r")
    List1= F.readlines()
    for i in List1:
        if i[-2]=="." or i[-2]==",":
            print(i,end="")
    F.close()

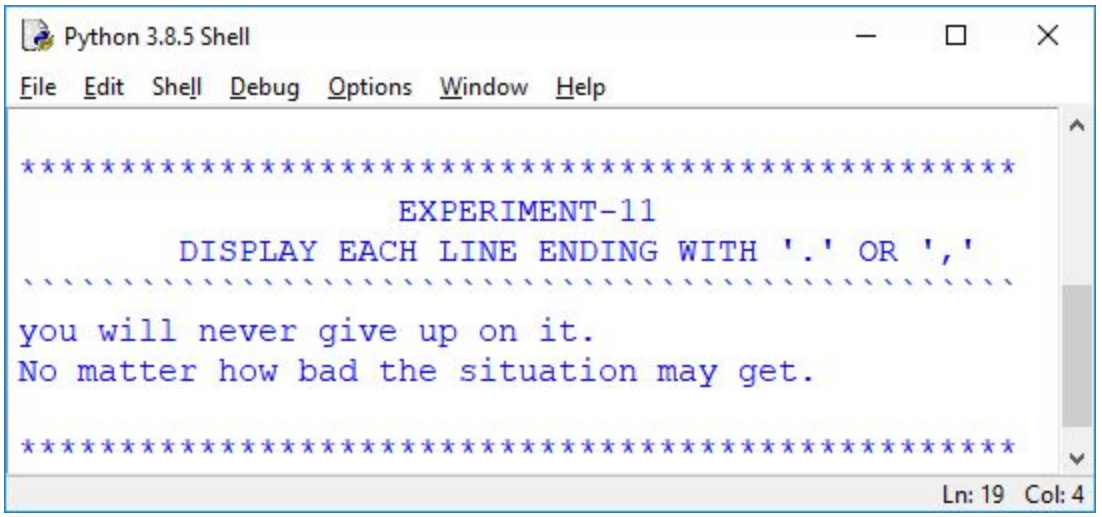
def display(x):
    F3=open(x,"r")
    string=F3.read()
    print("*"*50)
    print(string)

print("\t\tContents of TEXTFILE.txt")
display("TEXTFILE.txt")

print("*"*50)
print("\t\t   EXPERIMENT-11\n\tDISPLAY EACH LINE ENDING WITH '.' OR ','")
print("`"*50)
stopcomma()
print()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:/Users/user/Documents/cs/
VEDIKA/exp11.py ==========
Contents of TEXTFILE.txt
**********
Just know, when you truly want success
you will never give up on it.
No matter how bad the situation may get.
Ln: 19 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-11
DISPLAY EACH LINE ENDING WITH '.' OR ','
``````````
you will never give up on it.
No matter how bad the situation may get.
**********
Ln: 19 Col: 4
``````````

# EXPERIMENT-12

**AIM:** Understanding read() and write()l.

**TASK:**Create a program to read a text file and transfer all vowel words into another file.

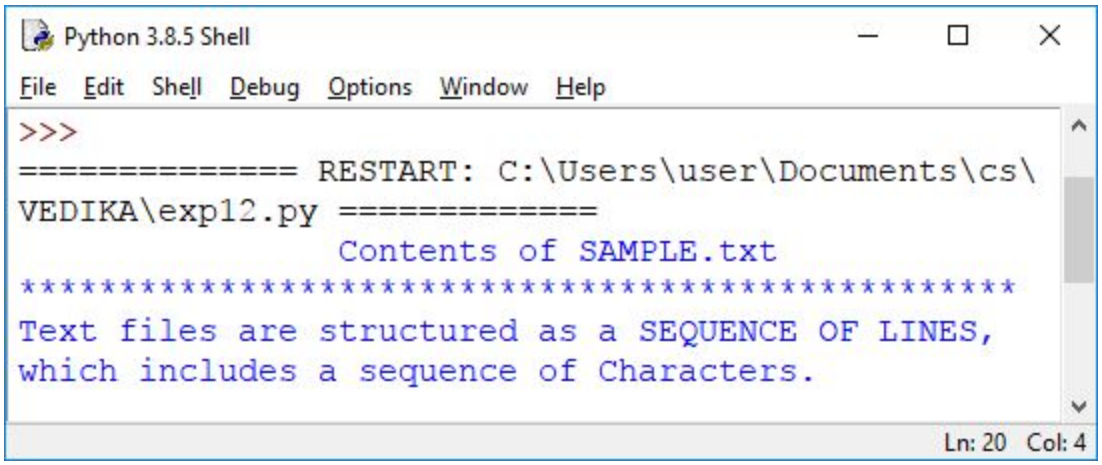
**#SOURCE CODE:**

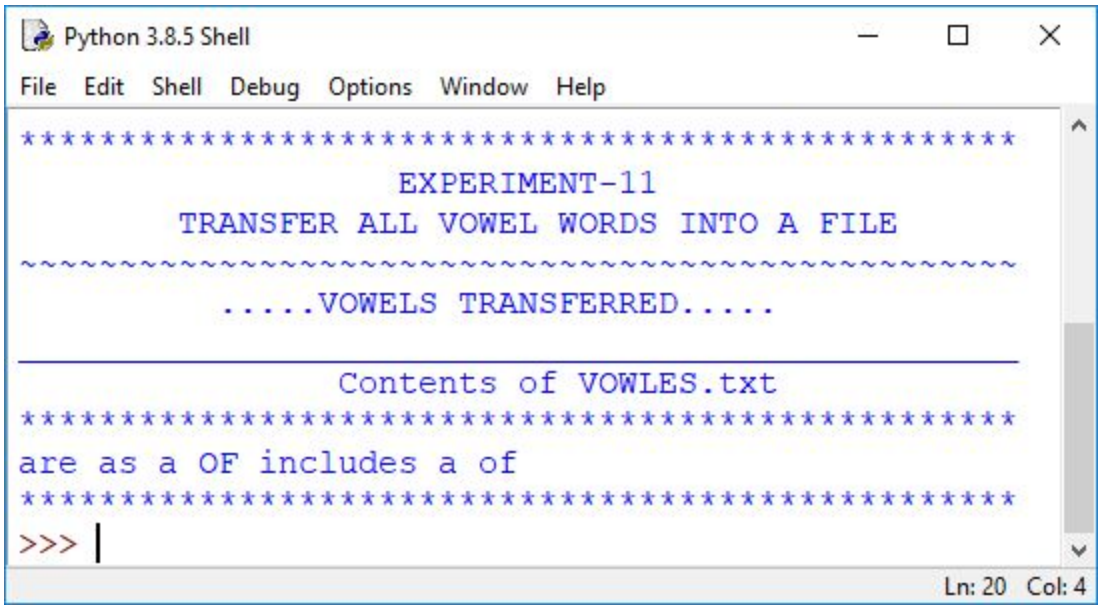
```
def copyfile():
    F1= open("SAMPLE.txt","r")
    F2= open("VOWELS.txt","w")
    read=F1.read()
    words=read.split()
    for i in words:
        if i[0] in "aeiouAEIOU":
            F2.write(i+" ")
    F1.close()
    F2.close()

def display(x):
    F3=open(x,"r")
    string=F3.read()
    print("*"*50)
    print(string)

print("\t\tContents of SAMPLE.txt")
display("SAMPLE.txt")
print("*"*50)
print("\t\t   EXPERIMENT-11\n\tTRANSFER ALL VOWEL WORDS INTO A FILE")
print("~"*50)
copyfile()
print("\t  .....VOWELS TRANSFERRED.....")
print("_"*50)
print("\t\tContents of VOWLES.txt")
display("VOWELS.txt")
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp12.py ==========
Contents of SAMPLE.txt
**********
Text files are structured as a SEQUENCE OF LINES,
which includes a sequence of Characters.
Ln: 20 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-11
TRANSFER ALL VOWEL WORDS INTO A FILE
~~~~~~~~~~
.....VOWELS TRANSFERRED.....
Contents of VOWLES.txt
**********
are as a OF includes a of
**********
>>>
Ln: 20 Col: 4
~~~~~~~~~~

# EXPERIMENT-13

**AIM:** Understanding read() and write().

**TASK:** Create a program to read a text file and find the sum of all integers in it.

**#SOURCE CODE:**

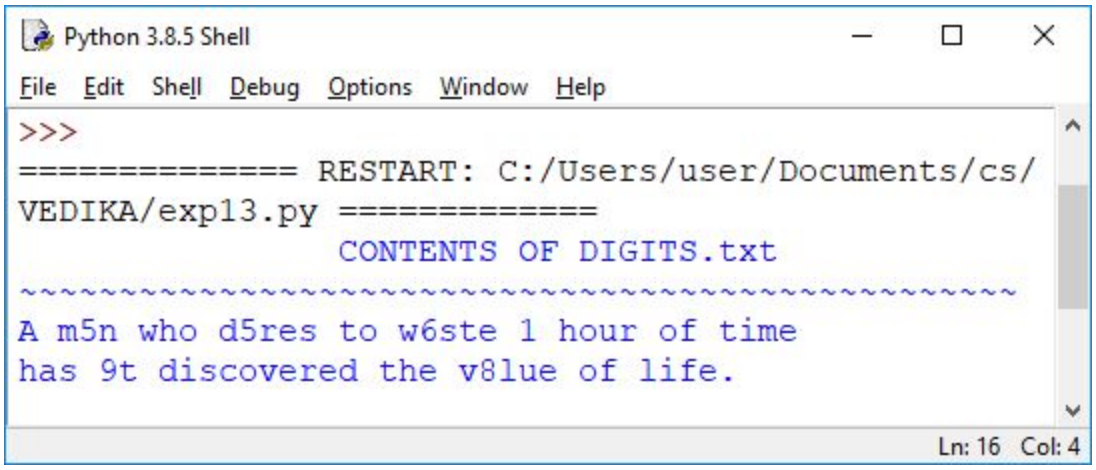
```
def sumdigits():
    F= open("DIGITS.txt","r")
    read= F.read()
    sum=0
    for i in read:
        if i.isdigit():
            sum+=int(i)
    print("The sum of digits in DIGITS.txt= ",sum)
    F.close()

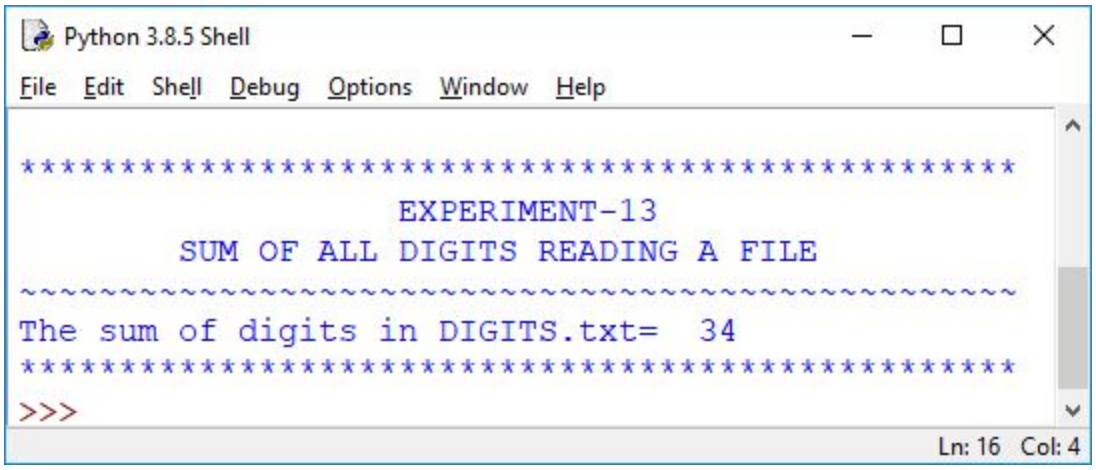
def display(x):
    F3=open(x,"r")
    string=F3.read()
    print("~"*50)
    print(string)

print("\t\tCONTENTS OF DIGITS.txt")
display("DIGITS.txt")

print("*"*50)
print("\t\t   EXPERIMENT-13\n\tSUM OF ALL DIGITS READING A FILE")
print("~"*50)
sumdigits()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
============== RESTART: C:/Users/user/Documents/cs/
VEDIKA/exp13.py ==============
CONTENTS OF DIGITS.txt
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
A m5n who d5res to w6ste 1 hour of time
has 9t discovered the v8lue of life.
Ln: 16 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-13
SUM OF ALL DIGITS READING A FILE
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
The sum of digits in DIGITS.txt= 34
**********
>>>
Ln: 16 Col: 4

# EXPERIMENT-14

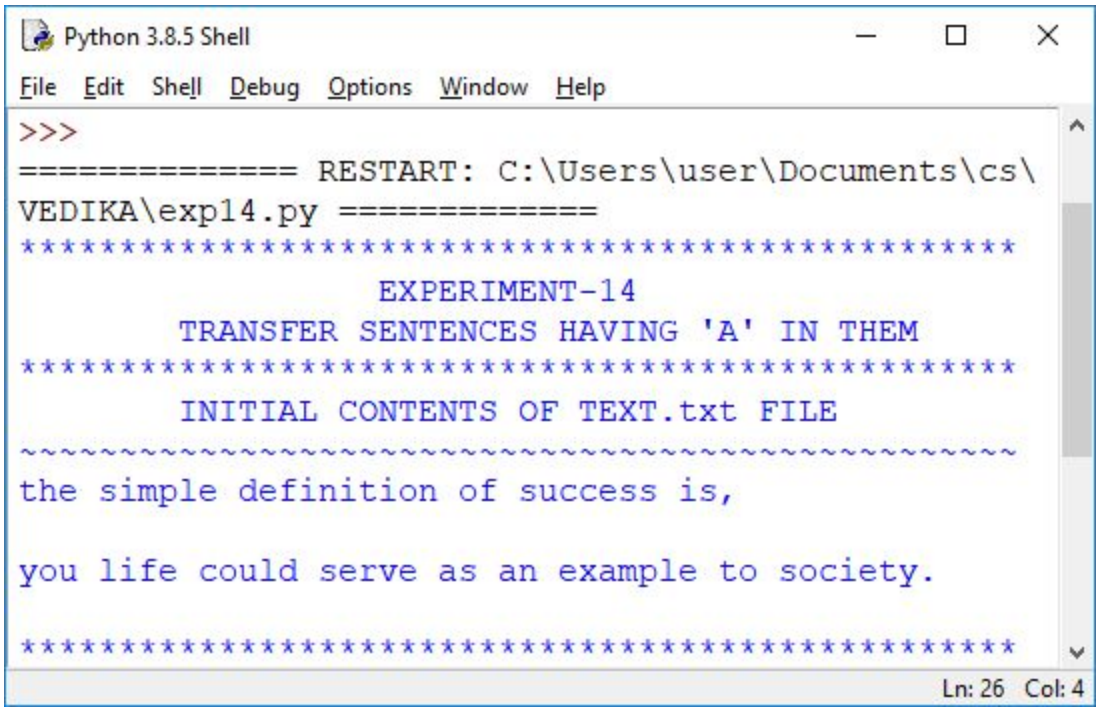
**AIM:** Understanding readlines() and write()l.

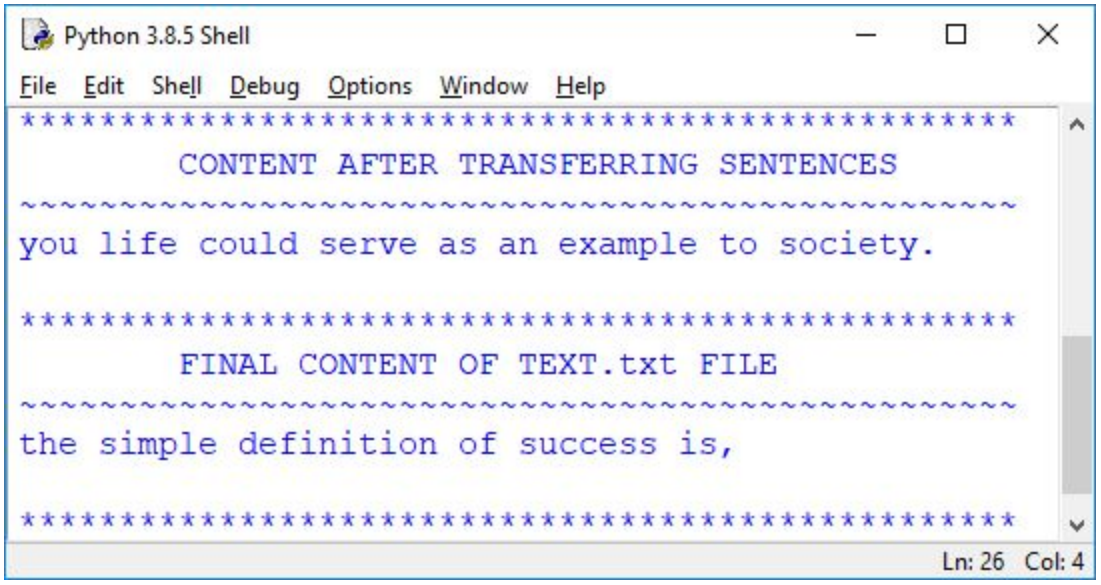
**TASK:** Create a program to remove all the lines that contain the character ‘a’ in file
And write it to another file.

**#SOURCE CODE:**

```
print("*"*50)
print("\t\t  EXPERIMENT-14\n\tTRANSFER SENTENCES HAVING 'A' IN THEM")
print("*"*50)
F1= open("TEXT.txt","r")
F2= open("ACHAR.txt","w")
List1= F1.readlines()
List2=[]
print("\tINITIAL CONTENTS OF TEXT.txt FILE")
print("~"*50)
for i in List1:
    print(i)
    if "a" in i or "A" in i:
        F2.write(i)
    else:
        List2.append(i)
F1.close()
F2.close()
F1= open("TEXT.txt","w")
F1.writelines(List2)
F1.close()
F2= open("ACHAR.txt","r")
read= F2.read()
print("*"*50)
print("\tCONTENT AFTER TRANSFERRING SENTENCES")
print("~"*50)
print(read)
F2.close()
print("*"*50)
F1= open("TEXT.txt","r")
read= F1.read()
print("\tFINAL CONTENT OF TEXT.txt FILE")
print("~"*50)
print(read)
F1.close()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp14.py ==========
**********
EXPERIMENT-14
TRANSFER SENTENCES HAVING 'A' IN THEM
**********
INITIAL CONTENTS OF TEXT.txt FILE
~~~~~~~~~~
the simple definition of success is,
you life could serve as an example to society.
**********
Ln: 26 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
CONTENT AFTER TRANSFERRING SENTENCES
~~~~~~~~~~
you life could serve as an example to society.
**********
FINAL CONTENT OF TEXT.txt FILE
~~~~~~~~~~
the simple definition of success is,
**********
Ln: 26 Col: 4
~~~~~~~~~~

# EXPERIMENT-15

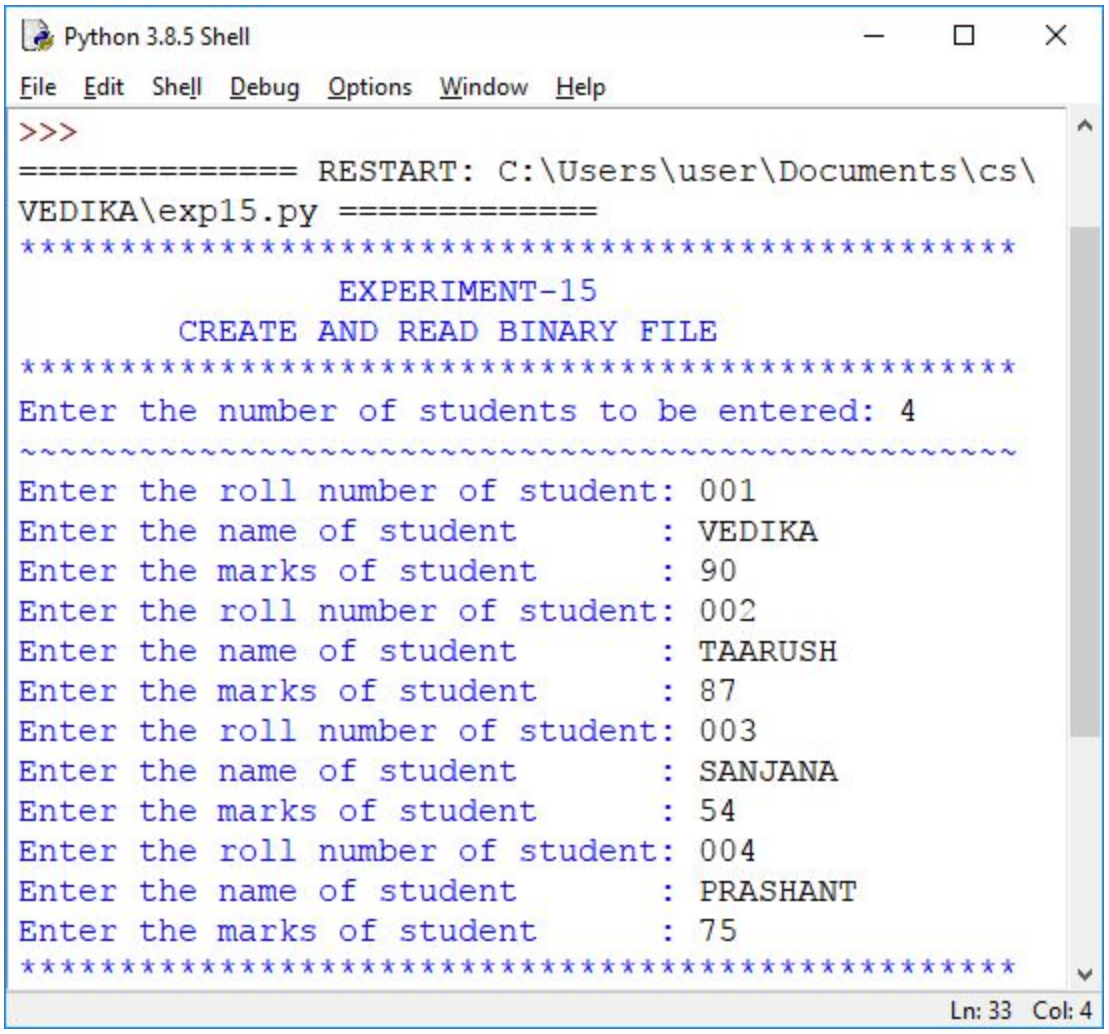
**AIM:** Understanding try, except and pickle.

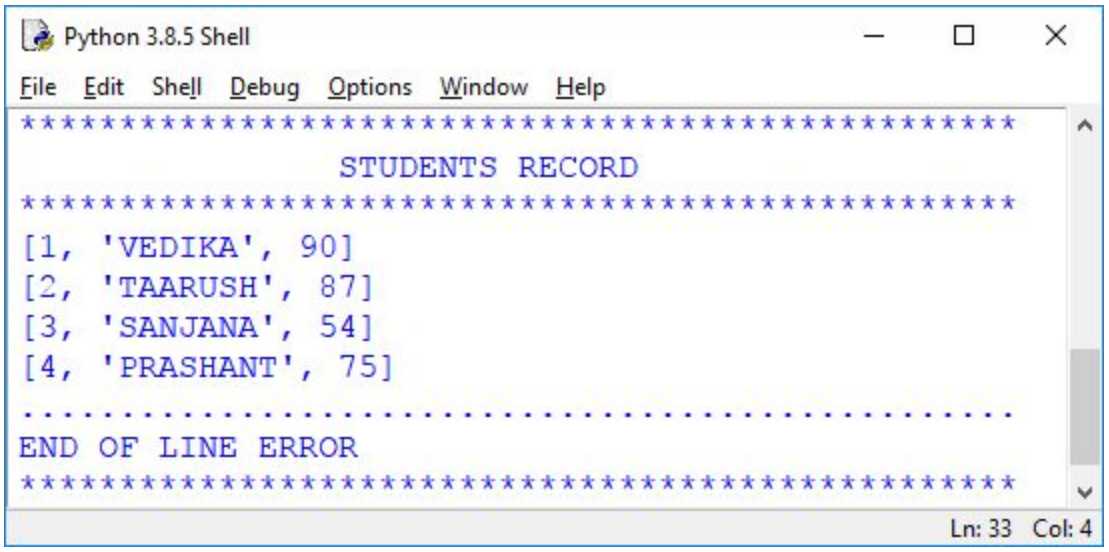
**TASK:** Create a binary file with student details-[roll no., name, marks] and display it.

**#SOURCE CODE:**

```
import pickle
def create():
    F= open("STUDENTS.dat","wb")
    n= int(input("Enter the number of students to be entered: "))
    print("~"*50)
    for i in range(n):
        List= []
        roll= int(input("Enter the roll number of student: "))
        name= input("Enter the name of student\t: ")
        marks= int(input("Enter the marks of student\t: "))
        List.append(roll)
        List.append(name)
        List.append(marks)
        pickle.dump(List,F)
    F.close()
def display():
    F= open("STUDENTS.dat","rb")
    while True:
        try:
            obj= pickle.load(F)
            print(obj)
        except EOFError:
            print("."*50)
            print("END OF LINE ERROR")
            break
    F.close()
print("*"*50)
print("\t\tEXPERIMENT-15\n\tCREATE AND READ BINARY FILE")
print("*"*50)
create()
print("*"*50)
print("\t\tSTUDENTS RECORD")
print("*"*50)
display()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:\Users\user\Documents\cs\
VEDIKA\exp15.py ==========
**********
EXPERIMENT-15
CREATE AND READ BINARY FILE
**********
Enter the number of students to be entered: 4
~~~~~~~~~~
Enter the roll number of student: 001
Enter the name of student : VEDIKA
Enter the marks of student : 90
Enter the roll number of student: 002
Enter the name of student : TAARUSH
Enter the marks of student : 87
Enter the roll number of student: 003
Enter the name of student : SANJANA
Enter the marks of student : 54
Enter the roll number of student: 004
Enter the name of student : PRASHANT
Enter the marks of student : 75
**********
Ln: 33 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
STUDENTS RECORD
**********
[1, 'VEDIKA', 90]
[2, 'TAARUSH', 87]
[3, 'SANJANA', 54]
[4, 'PRASHANT', 75]
.....
END OF LINE ERROR
**********
Ln: 33 Col: 4
~~~~~~~~~~

# EXPERIMENT-16

**AIM:** Understanding try, except and pickle.

**TASK:** Create a program to search for a given roll number and display the name of the student, if not found then display the appropriate message.

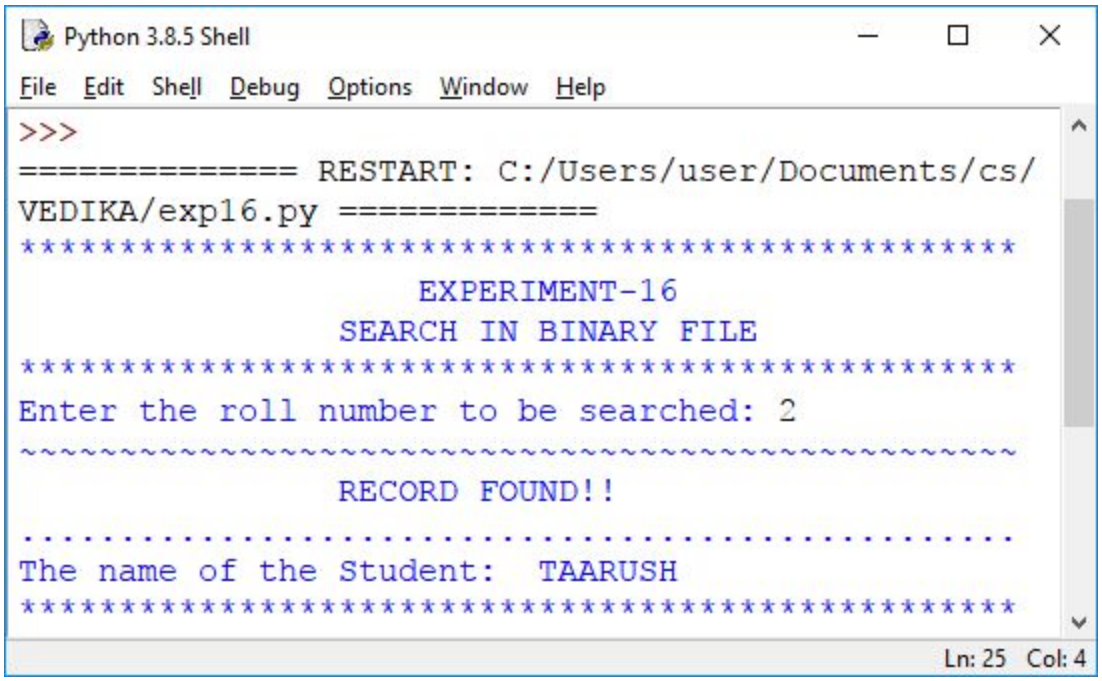
**#SOURCE CODE:**

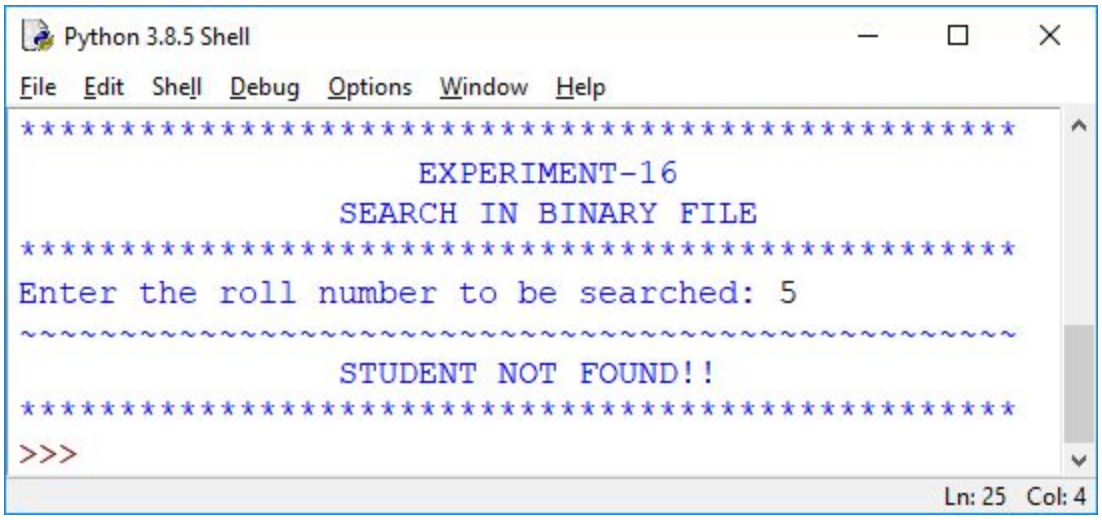
```
import pickle

def searching():
    F= open("STUDENTS.dat","rb")
    search= int(input("Enter the roll number to be searched: "))
    print("~"*50)
    while True:
        try:
            obj= pickle.load(F)
            if search==obj[0]:
                print("\t\tRECORD FOUND!!")
                print("."*50)
                print("The name of the Student: ",obj[1])
                break
        except:
            print("\t\tSTUDENT NOT FOUND!!")
            break
    print("*"*50)
    F.close()

print("*"*50)
print("\t\t    EXPERIMENT-16\n\t\tSEARCH IN BINARY FILE")
print("*"*50)
searching()
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
========== RESTART: C:/Users/user/Documents/cs/
VEDIKA/exp16.py ==========
**********
EXPERIMENT-16
SEARCH IN BINARY FILE
**********
Enter the roll number to be searched: 2
~~~~~~~~~~
RECORD FOUND!!
..........
The name of the Student: TAARUSH
**********
Ln: 25 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EXPERIMENT-16
SEARCH IN BINARY FILE
**********
Enter the roll number to be searched: 5
~~~~~~~~~~
STUDENT NOT FOUND!!
**********
>>>
Ln: 25 Col: 4

# EXPERIMENT-17

**AIM:** Understanding Data FIle Handling.

**TASK:** To input a roll number and update the marks.

**#SOURCE CODE:**

```
import os
import pickle

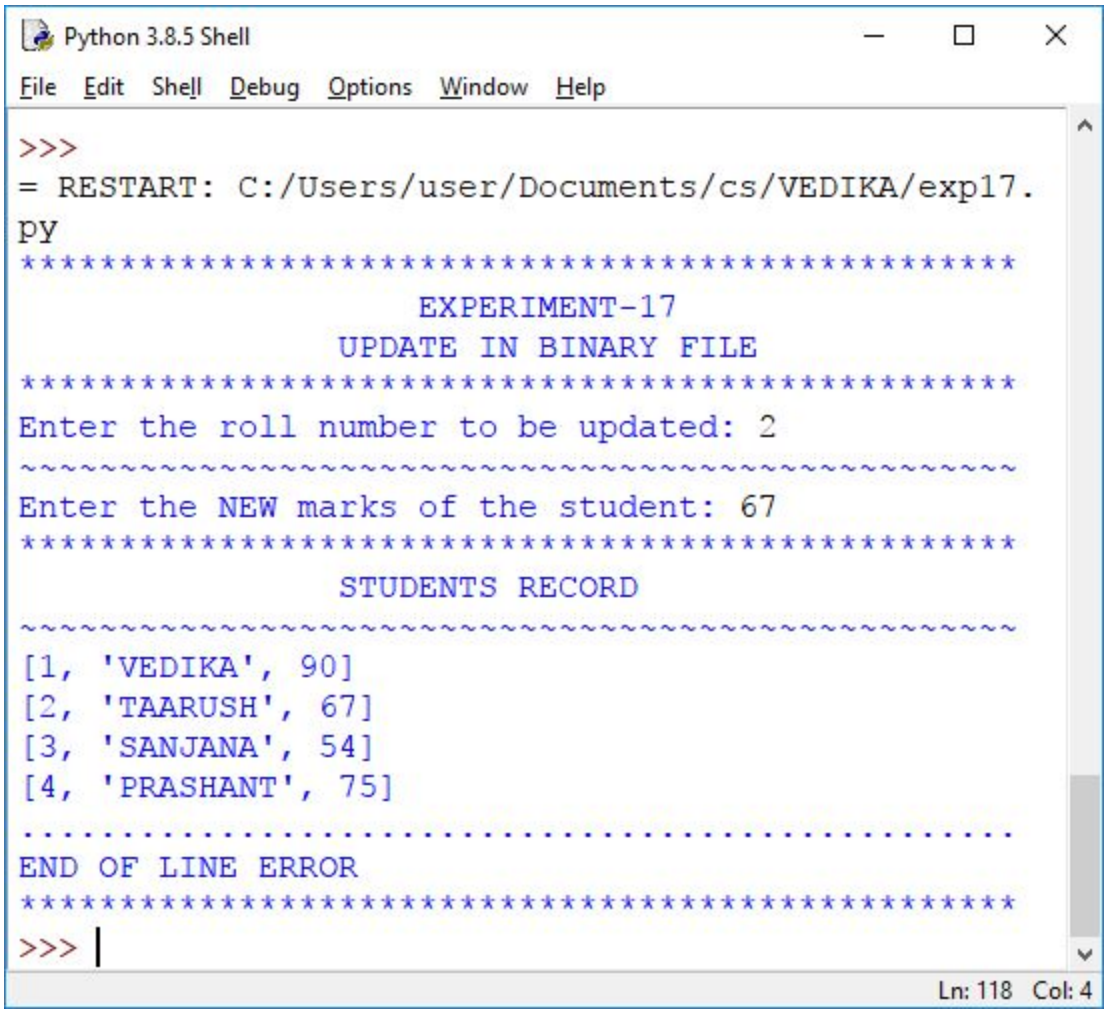
def updating():
    F1= open("STUDENTS.dat","rb")
    F2= open("RECORD.dat","wb")
    roll= int(input("Enter the roll number to be updated: "))
    print("~"*50)
    while True:
        try:
            obj= pickle.load(F1)
            if roll==obj[0]:
                obj[2]= int(input("Enter the NEW marks of the student: "))
            pickle.dump(obj,F2)
        except EOFError:
            break
    F1.close()
    F2.close()
    os.remove("STUDENTS.dat")
    os.rename("RECORD.dat","STUDENTS.dat")

def display():
    F= open("STUDENTS.dat","rb")
    while True:
        try:
            obj= pickle.load(F)
            print(obj)
        except EOFError:
            print("."*50)
            print("END OF LINE ERROR")
            break
    F.close()

print("*"*50)
```

```
print("\t\t    EXPERIMENT-17\n\t\tUPDATE IN BINARY FILE")
print("*"*50)
updating()
print("*"*50)
print("\t\tSTUDENTS RECORD")
print("~"*50)
display()
print("*"*50)
```

#OUTPUT:


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
= RESTART: C:/Users/user/Documents/cs/VEDIKA/exp17.
py
**********
EXPERIMENT-17
UPDATE IN BINARY FILE
**********
Enter the roll number to be updated: 2
~~~~~~~~~~
Enter the NEW marks of the student: 67
**********
STUDENTS RECORD
~~~~~~~~~~
[1, 'VEDIKA', 90]
[2, 'TAARUSH', 67]
[3, 'SANJANA', 54]
[4, 'PRASHANT', 75]
.....
END OF LINE ERROR
**********
>>>
Ln: 118 Col: 4

# EXPERIMENT-18

**AIM:** Understanding Data File Handling.

**TASK:** To input a roll number and delete the record.

**#SOURCE CODE:**

```
import os
import pickle

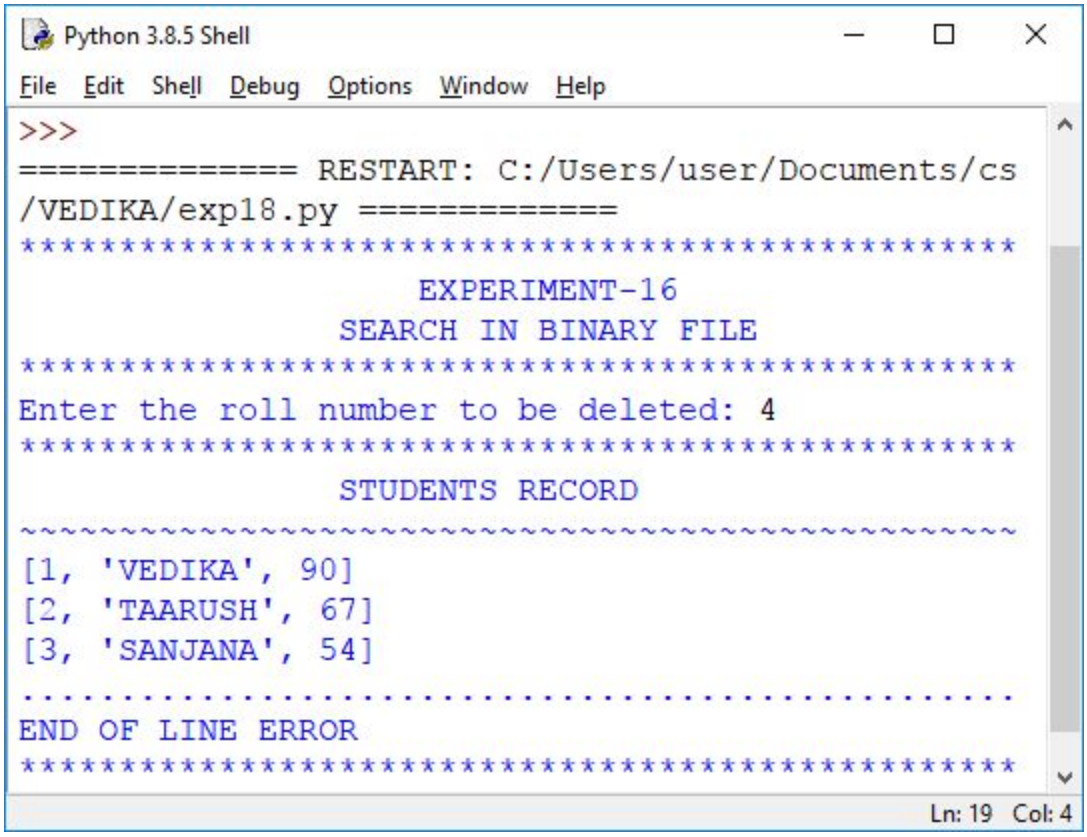
def deleting():
    F1= open("STUDENTS.dat","rb")
    F2= open("RECORD.dat","wb")
    roll= int(input("Enter the roll number to be deleted: "))
    while True:
        try:
            obj= pickle.load(F1)
            if roll!=obj[0]:
                pickle.dump(obj,F2)
        except EOFError:
            break
    F1.close()
    F2.close()
    os.remove("STUDENTS.dat")
    os.rename("RECORD.dat","STUDENTS.dat")

def display():
    F= open("STUDENTS.dat","rb")
    while True:
        try:
            obj= pickle.load(F)
            print(obj)
        except EOFError:
            print("."*50)
            print("END OF LINE ERROR")
            break
    F.close()

print("*"*50)
print("\t\t    EXPERIMENT-16\n\t\tSEARCH IN BINARY FILE")
print("*"*50)
deleting()
```

```
print("*"*50)
print("\t\tSTUDENTS RECORD")
print("~"*50)
display()
print("*"*50)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
>>>
============== RESTART: C:/Users/user/Documents/cs
/VEDIKA/exp18.py ==============
**********
EXPERIMENT-16
SEARCH IN BINARY FILE
**********
Enter the roll number to be deleted: 4
**********
STUDENTS RECORD
~~~~~~~~~~
[1, 'VEDIKA', 90]
[2, 'TAARUSH', 67]
[3, 'SANJANA', 54]
.....
END OF LINE ERROR
**********
Ln: 19 Col: 4
~~~~~~~~~~

# EXPERIMENT-19

**AIM:** Understanding Data File Handling.

**TASK:** Create a program to search for an employee record in a binary file.

**#SOURCE CODE:**

```
import pickle

def create():
    F= open("EMPLOYEE.dat","wb")
    n= int(input("Enter the number of employees to be entered: "))
    print("~"*55)
    EmpDic= {}
    for i in range(n):
        Ecode= int(input("Enter the code of the employee\t\t: "))
        ENAME= input("Enter the name of the employee\t\t: ")
        DEPT= input("Enter the department of the employee    : ")
        SALARY= int(input("Enter the salary of the employee\t: "))
        EmpDic[Ecode]= [ENAME, DEPT, SALARY]
    pickle.dump(EmpDic,F)
    F.close()

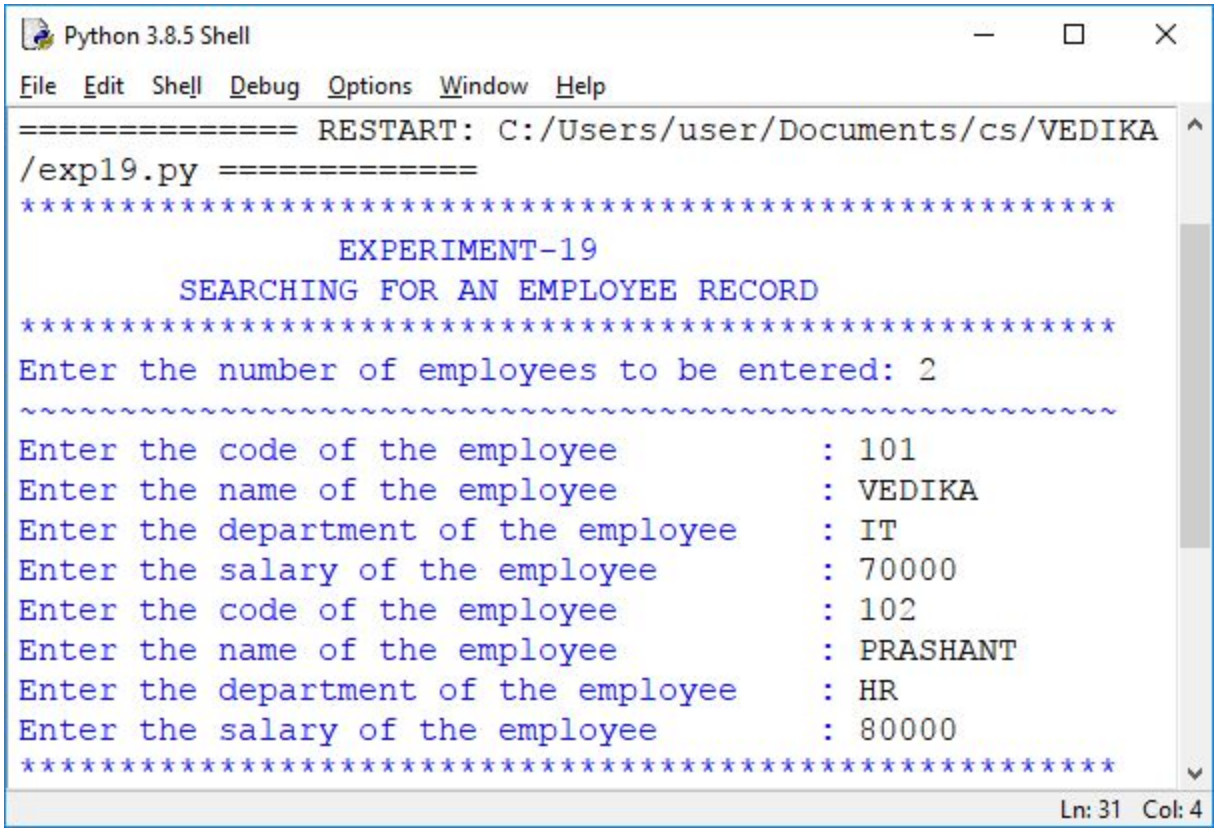
def display():
    F= open("EMPLOYEE.dat","rb")
    while True:
        try:
            obj= pickle.load(F)
            for key in obj:
                print(key,":",obj[key])
        except EOFError:
            break
    F.close()

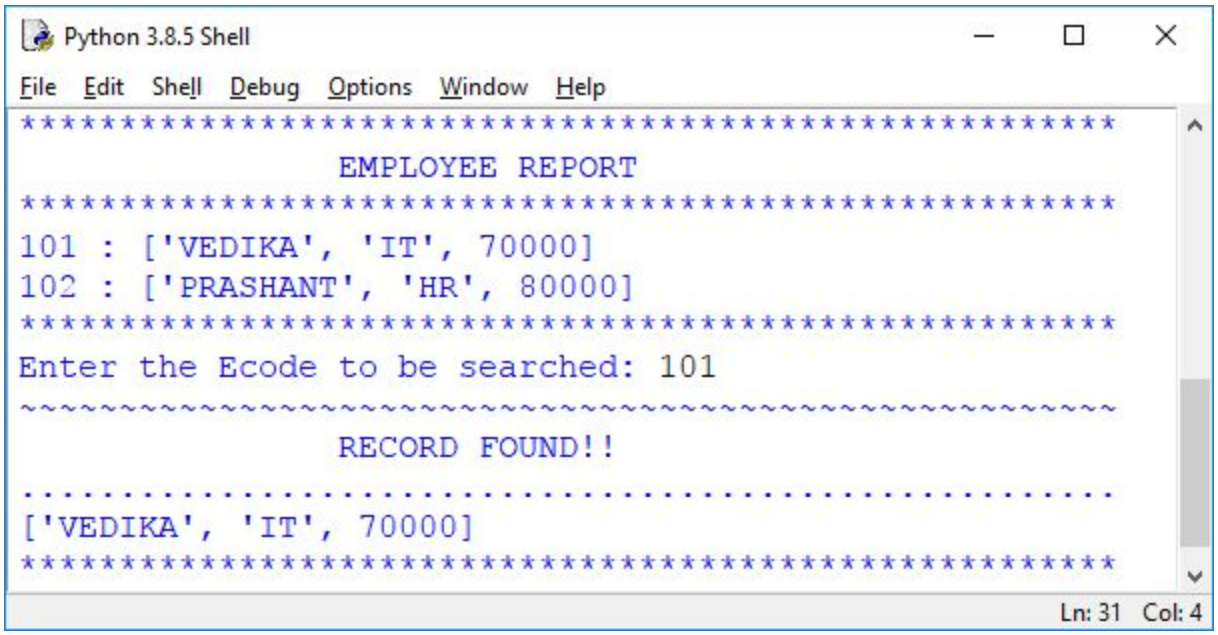
def CodeSearch():
    F= open("EMPLOYEE.dat","rb")
    search= int(input("Enter the Ecode to be searched: "))
    print("~"*55)
    while True:
        try:
            obj= pickle.load(F)
```

```
            if search in obj.keys():
                print("\t\tRECORD FOUND!!")
                print("."*55)
                print(obj[search])
                break
        except:
            print("\t\tSTUDENT NOT FOUND!!")
            break
        F.close()

print("*"*55)
print("\t\tEXPERIMENT-19\n\tSEARCHING FOR AN EMPLOYEE RECORD")
print("*"*55)
create()
print("*"*55)
print("\t\tEMPLOYEE REPORT")
print("*"*55)
display()
print("*"*55)
CodeSearch()
print("*"*55)
```

**#OUTPUT:**


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
========== RESTART: C:/Users/user/Documents/cs/VEDIKA
/exp19.py ==========
**********
EXPERIMENT-19
SEARCHING FOR AN EMPLOYEE RECORD
**********
Enter the number of employees to be entered: 2
~~~~~~~~~~
Enter the code of the employee : 101
Enter the name of the employee : VEDIKA
Enter the department of the employee : IT
Enter the salary of the employee : 70000
Enter the code of the employee : 102
Enter the name of the employee : PRASHANT
Enter the department of the employee : HR
Enter the salary of the employee : 80000
**********
Ln: 31 Col: 4


Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
**********
EMPLOYEE REPORT
**********
101 : ['VEDIKA', 'IT', 70000]
102 : ['PRASHANT', 'HR', 80000]
**********
Enter the Ecode to be searched: 101
~~~~~~~~~~
RECORD FOUND!!
.....
['VEDIKA', 'IT', 70000]
**********
Ln: 31 Col: 4

# EXPERIMENT-20

**AIM:** Understanding Data File Handling.

**TASK:** Create a menu-driven programme to store, display the items, show items that are Out of stock, and net stock price from a CSV file .

**#SOURCE CODE:**

```
import csv

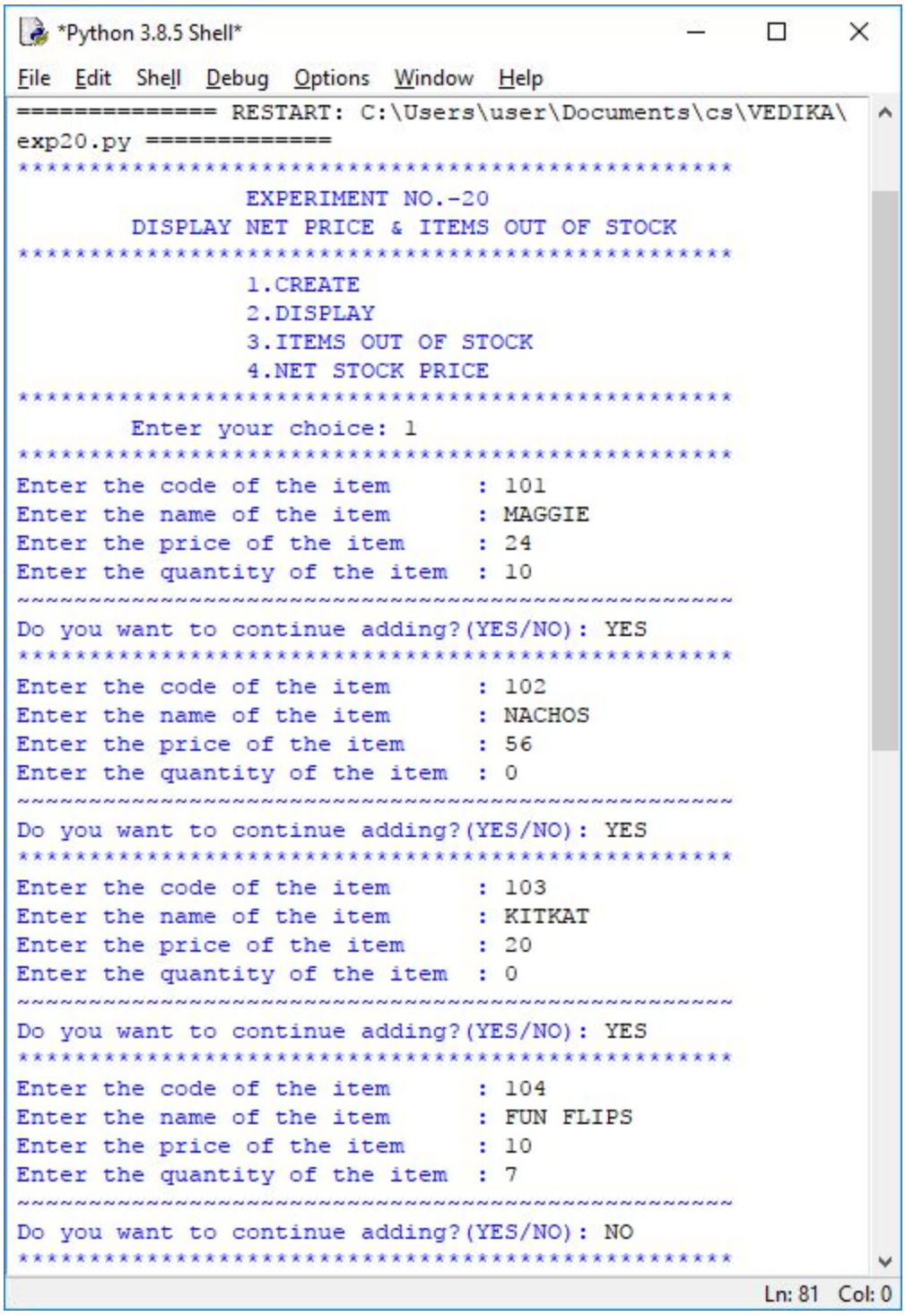
def create():
    ans="YES"
    F= open("DETAILS.csv","a",newline='')
    csvwrite= csv.writer(F)
    while ans=="YES":
        icode= int(input("Enter the code of the item\t: "))
        iname= input("Enter the name of the item\t: ")
        unitprice= int(input("Enter the price of the item\t: "))
        quantity= int(input("Enter the quantity of the item  : "))
        csvwrite.writerow([icode,iname,unitprice,quantity])
        print("~"*50)
        ans= input("Do you want to continue adding?(YES/NO): ")
        print("*"*50)
    F.close()

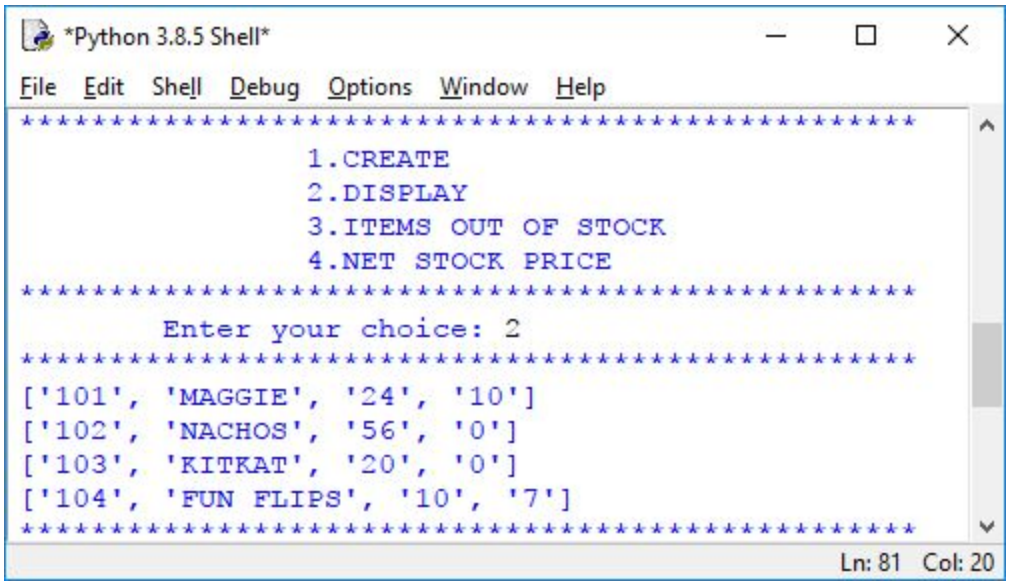
def display():
    F= open("DETAILS.csv","r",newline='')
    csvread= csv.reader(F)
    for i in csvread:
        print(i)
    F.close()

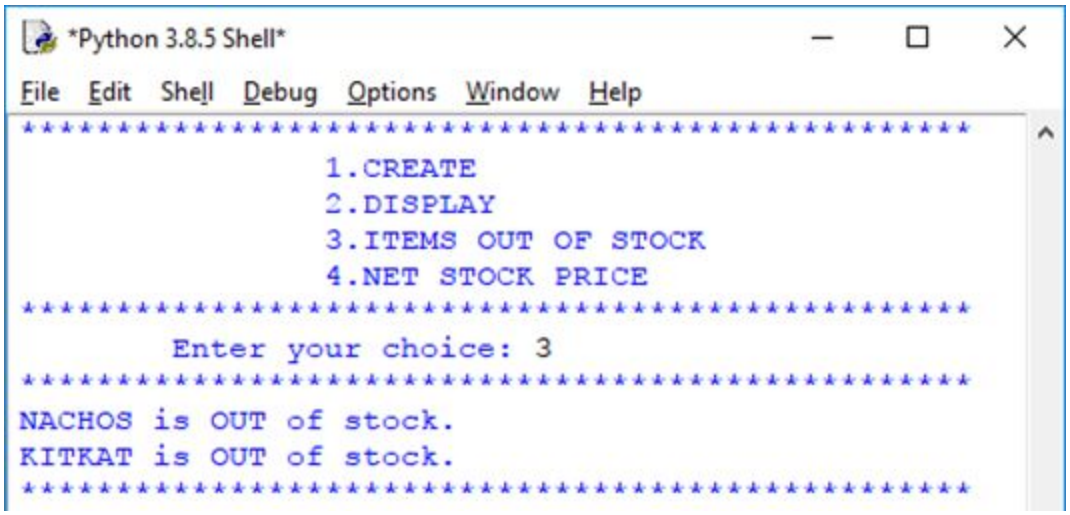
def STOCKOVER():
    F= open("DETAILS.csv","r",newline='')
    csvread= csv.reader(F)
    for i in csvread:
        if int(i[3])==0:
            print(i[1],"is OUT of stock.")
    F.close()
```

```
print("*"*50)
print("\t\tEXPERIMENT NO.-20\n\tDISPLAY NET PRICE & ITEMS OUT OF STOCK")
choice=1
while choice<=4:
    print("*"*50)
    print("\t\t1.CREATE")
    print("\t\t2.DISPLAY")
    print("\t\t3.ITEMS OUT OF STOCK")
    print("\t\t4.EXIT")
    print("*"*50)
    choice=int(input("\tEnter your choice: "))
    print("*"*50)
    if choice==1:
        create()
    if choice==2:
        display()
    if choice==3:
        STOCKOVER()
    if choice==4:
        break
```

**#OUTPUT:**


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
========== RESTART: C:\Users\user\Documents\cs\VEDIKA\
exp20.py ==========
**********
EXPERIMENT NO.-20
DISPLAY NET PRICE & ITEMS OUT OF STOCK
**********
1.CREATE
2.DISPLAY
3.ITEMS OUT OF STOCK
4.NET STOCK PRICE
**********
Enter your choice: 1
**********
Enter the code of the item : 101
Enter the name of the item : MAGGIE
Enter the price of the item : 24
Enter the quantity of the item : 10
~~~~~~~~~~
Do you want to continue adding?(YES/NO): YES
**********
Enter the code of the item : 102
Enter the name of the item : NACHOS
Enter the price of the item : 56
Enter the quantity of the item : 0
~~~~~~~~~~
Do you want to continue adding?(YES/NO): YES
**********
Enter the code of the item : 103
Enter the name of the item : KITKAT
Enter the price of the item : 20
Enter the quantity of the item : 0
~~~~~~~~~~
Do you want to continue adding?(YES/NO): YES
**********
Enter the code of the item : 104
Enter the name of the item : FUN FLIPS
Enter the price of the item : 10
Enter the quantity of the item : 7
~~~~~~~~~~
Do you want to continue adding?(YES/NO): NO
**********
Ln: 81 Col: 0


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
1.CREATE
2.DISPLAY
3.ITEMS OUT OF STOCK
4.NET STOCK PRICE
Enter your choice: 2
['101', 'MAGGIE', '24', '10']
['102', 'NACHOS', '56', '0']
['103', 'KITKAT', '20', '0']
['104', 'FUN FLIPS', '10', '7']
Ln: 81 Col: 20


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
1.CREATE
2.DISPLAY
3.ITEMS OUT OF STOCK
4.NET STOCK PRICE
Enter your choice: 3
NACHOS is OUT of stock.
KITKAT is OUT of stock.

# EXPERIMENT-21

**AIM:** Understanding Data File Handling.

**TASK:** Write a python program to display the art form, dance form and festival as the user enters the state.

.

**#SOURCE CODE:**

```
import csv

def searchart():
    F= open("ART.csv","r",newline='')
    print("\t\t\tART FORM")
    search= input("Enter the state to be searched for art form: ")
    csvread= csv.reader(F)
    print("~"*60)
    print("Art form(s) for the searched state")
    print("."*60)
    for i in csvread:
        if search.upper()==i[3].upper():
            print(i[4])
    F.close()

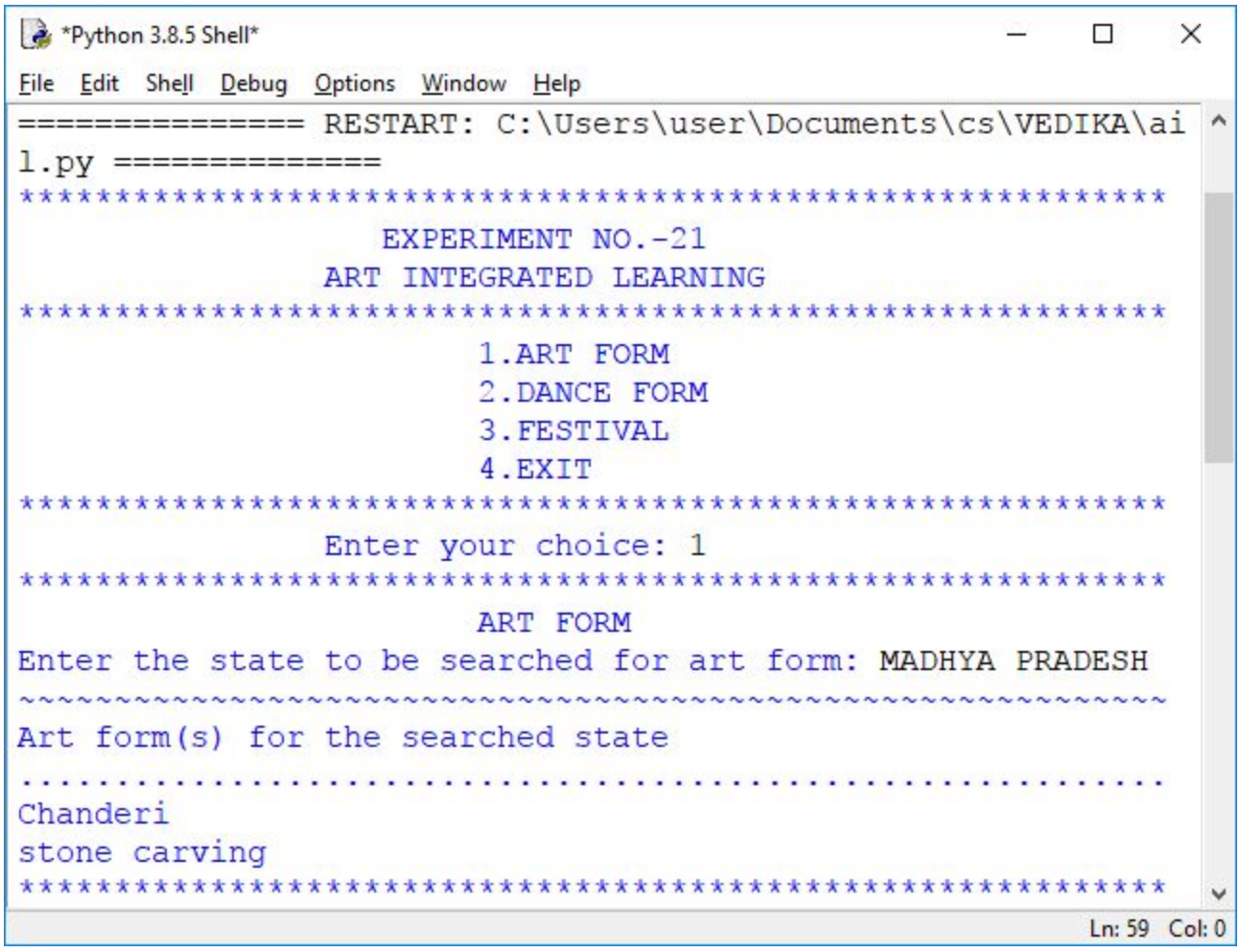
def searchdance():
    F= open("ART.csv","r",newline='')
    print("\t\t\tDANCE FORM")
    search= input("Enter the state to be searched for dance form: ")
    csvread= csv.reader(F)
    print("~"*60)
    print("Dance form(s) for the searched state")
    print("."*60)
    for i in csvread:
        if search.upper()==i[3].upper():
            print(i[5])
    F.close()

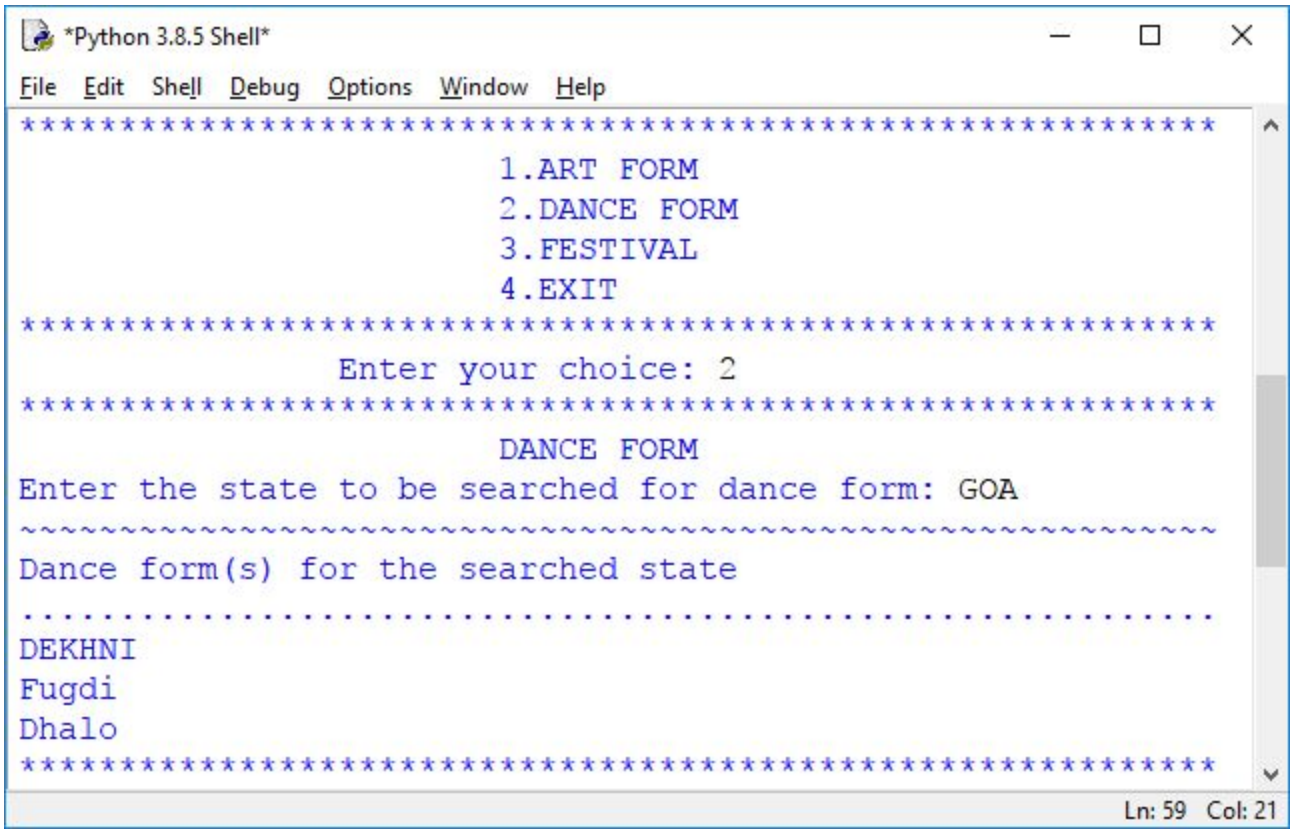
def searchfest():
    F= open("ART.csv","r",newline='')
    print("\t\t\tFESTIVAL")
```

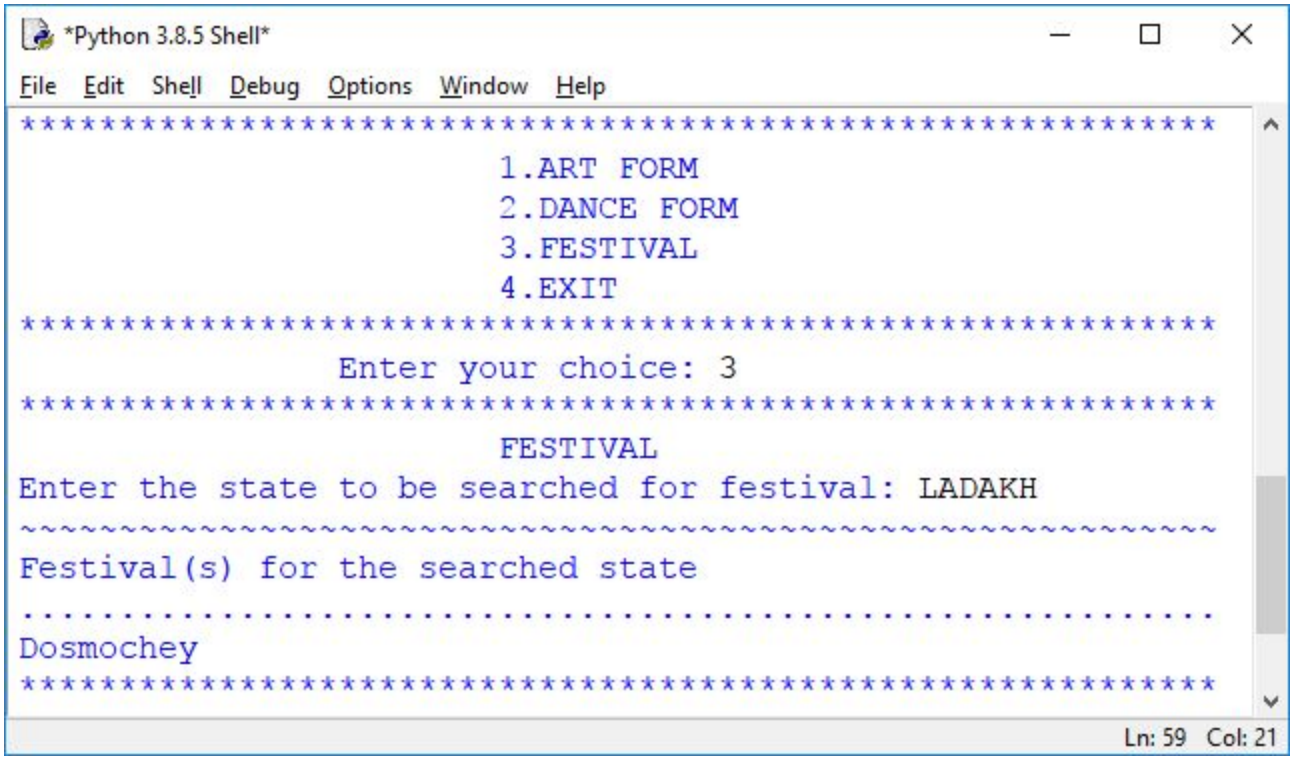
```
    search= input("Enter the state to be searched for festival: ")
    csvread= csv.reader(F)
    print("~"*60)
    print("Festival(s) for the searched state")
    print("."*60)
    for i in csvread:
        if search.upper()==i[3].upper():
            print(i[6])
    F.close()

print("*"*60)
print("\t\t   EXPERIMENT NO.-21\n\t\tART INTEGRATED LEARNING")
choice=1
while choice<=4:
      print("*"*60)
      print("\t\t\t1.ART FORM")
      print("\t\t\t2.DANCE FORM")
      print("\t\t\t3.FESTIVAL")
      print("\t\t\t4.EXIT")
      print("*"*60)
      choice=int(input("\t\tEnter your choice: "))
      print("*"*60)
      if choice==1:
            searchart()
      if choice==2:
            searchdance()
      if choice==3:
            searchfest()
      if choice==4:
            break
```

**#OUTPUT:**


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
========== RESTART: C:\Users\user\Documents\cs\VEDIKA\ai
l.py ==========
**********
EXPERIMENT NO.-21
ART INTEGRATED LEARNING
**********
1.ART FORM
2.DANCE FORM
3.FESTIVAL
4.EXIT
**********
Enter your choice: 1
**********
ART FORM
Enter the state to be searched for art form: MADHYA PRADESH
~~~~~~~~~~
Art form(s) for the searched state
.....
Chanderi
stone carving
**********
Ln: 59 Col: 0
~~~~~~~~~~


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
1.ART FORM
2.DANCE FORM
3.FESTIVAL
4.EXIT
**********
Enter your choice: 2
**********
DANCE FORM
Enter the state to be searched for dance form: GOA
~~~~~~~~~~
Dance form(s) for the searched state
.....
DEKHNI
Fugdi
Dhalo
**********
Ln: 59 Col: 21


*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
**********
1.ART FORM
2.DANCE FORM
3.FESTIVAL
4.EXIT
**********
Enter your choice: 3
**********
FESTIVAL
Enter the state to be searched for festival: LADAKH
~~~~~~~~~~
Festival(s) for the searched state
.....
Dosmochey
**********
Ln: 59 Col: 21