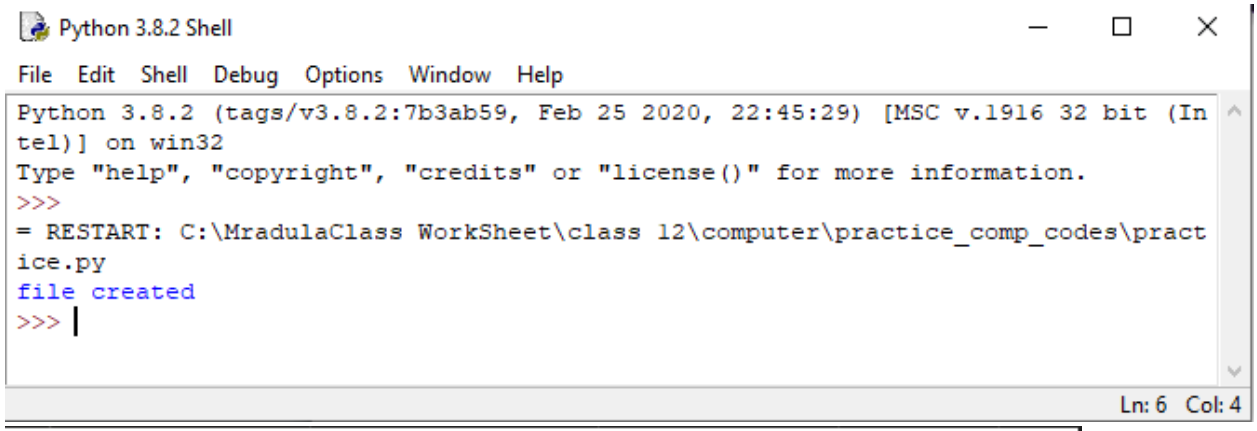
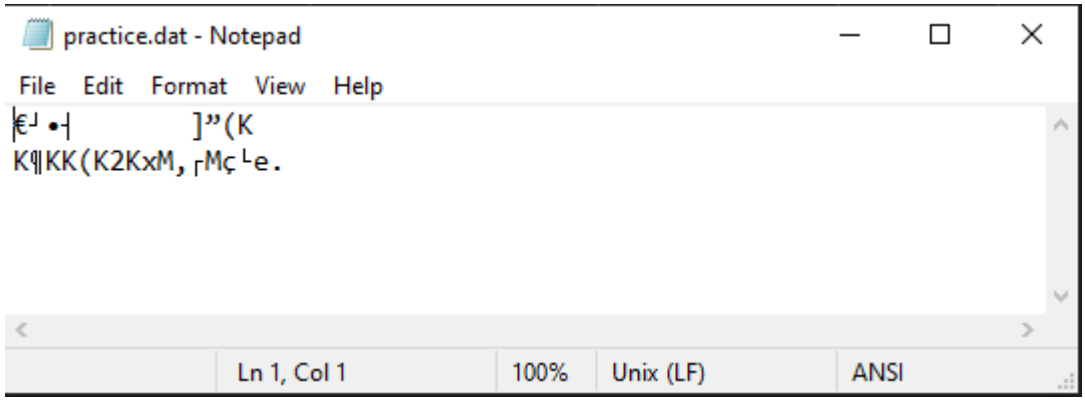
binary file

1. a program to write list sequence in a binary file

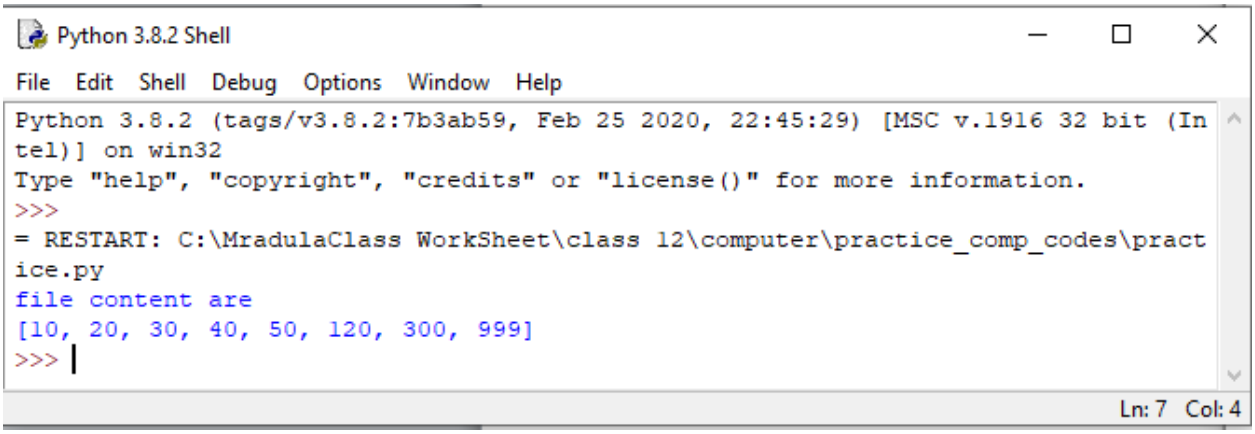
```
import pickle
def create_bin():
    mylist=[10,20,30,40,50,120,300,999]
    f=open("practice.dat","wb")
    pickle.dump(mylist,f)
    print("file created")
create_bin()
```





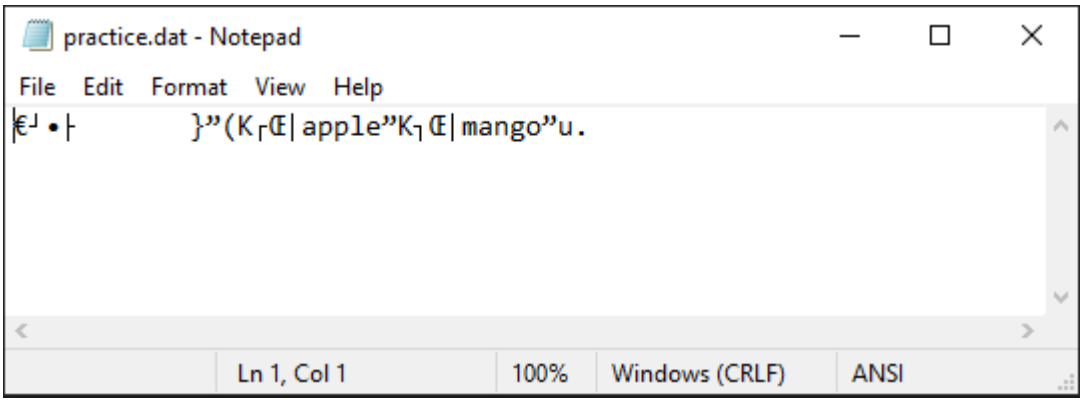
2. pickle.load() method is used to read the binary file.

```
import pickle
def read_bin():
    f=open("practice.dat","rb")
    mylist=pickle.load(f)
    print("file content are")
    print(mylist)
    f.close()
read_bin()
```



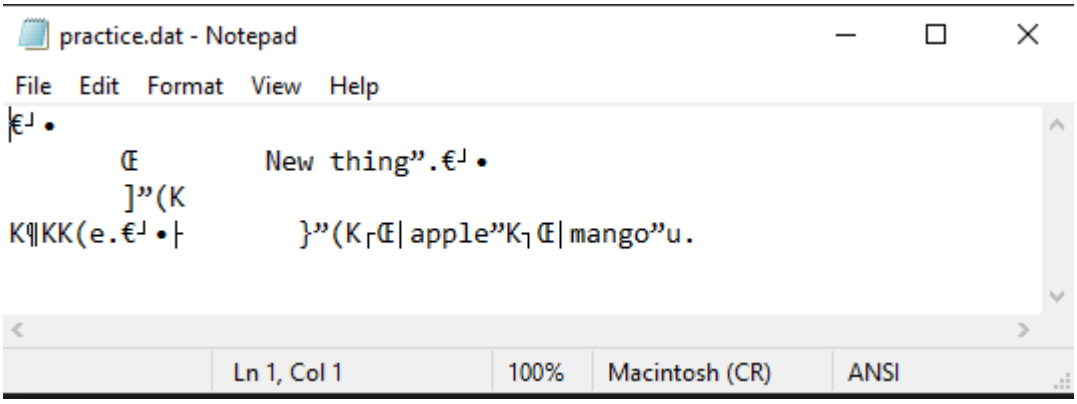
3. using dump method

```
import pickle
f=open("practice.dat","wb")
d={1:"apple",2:"mango"}
pickle.dump(d,f)
f.close()
```



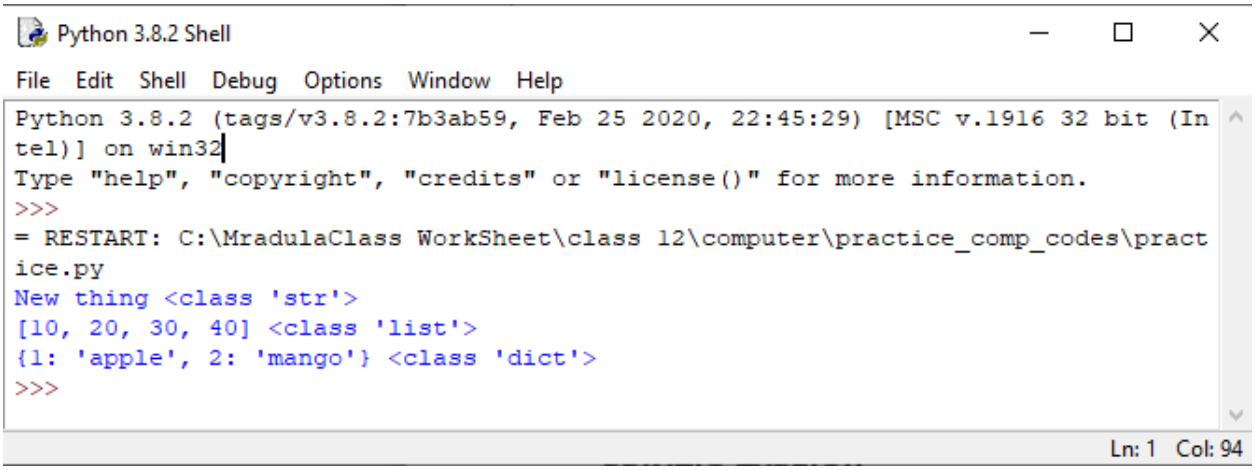
4. writing multiple type of data into binary files.

```
import pickle
f=open("practice.dat","wb")
a="new thing"
l=[10,20,30,40]
d={1:"apple",2:"mango"}
pickle.dump(a,f)
pickle.dump(l,f)
pickle.dump(d,f)
f.close()
```



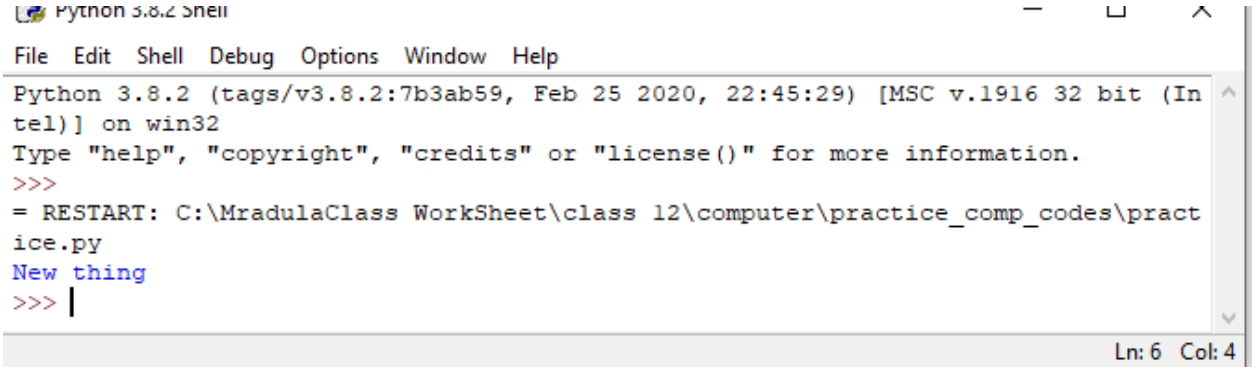
5. reading data from a binary file (unpickling)

```
import pickle
f=open("practice.dat","rb")
m=pickle.load(f)
print(m,type(m))
n=pickle.load(f)
print(n,type(n))
o=pickle.load(f)
print(o,type(o))
f.close()
```



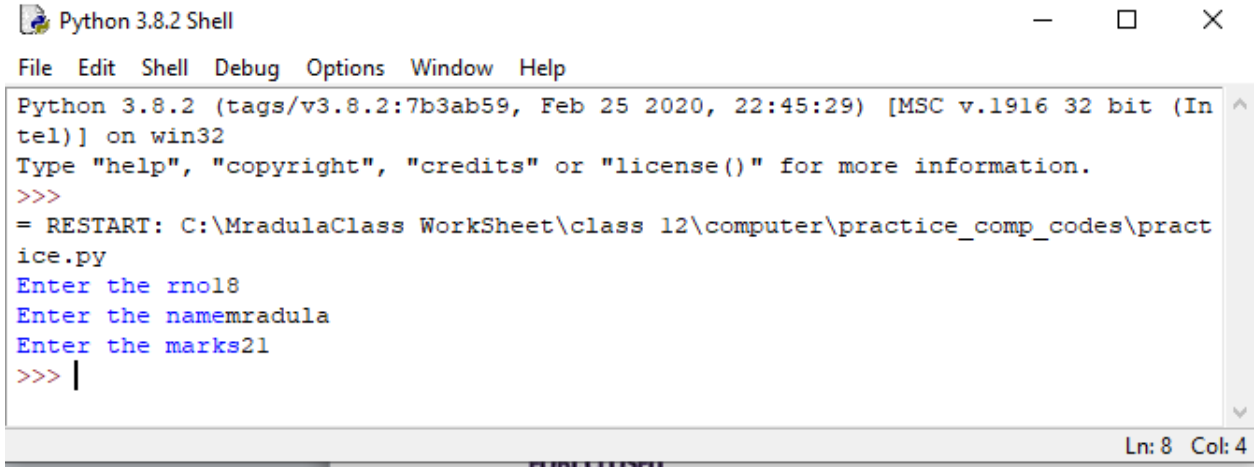
6. how to read data from binary file where no of records are not known.

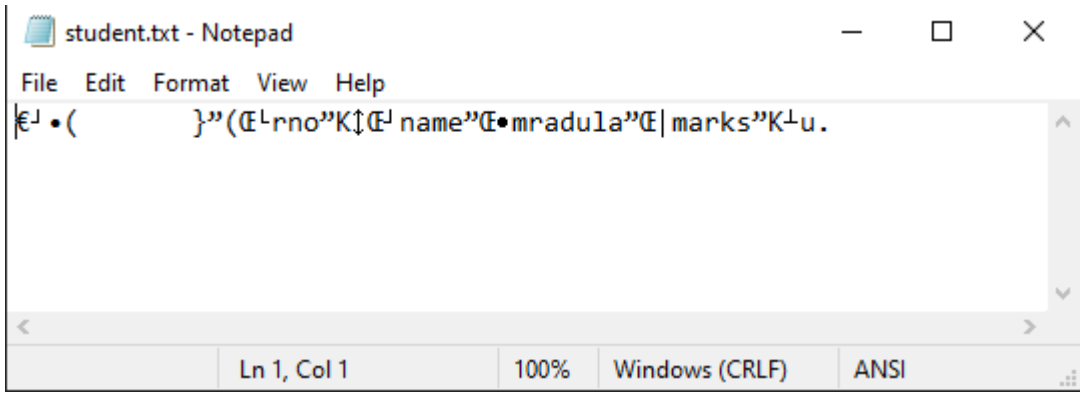
```
import pickle
f=open("practice.dat","rb")
while(true):
    obj=pickle.load(f)
    print(obj)
    f.close()
    break;
```



7. udf save dictionary object containing {rno, name, marks} to a pickled file student.txt.

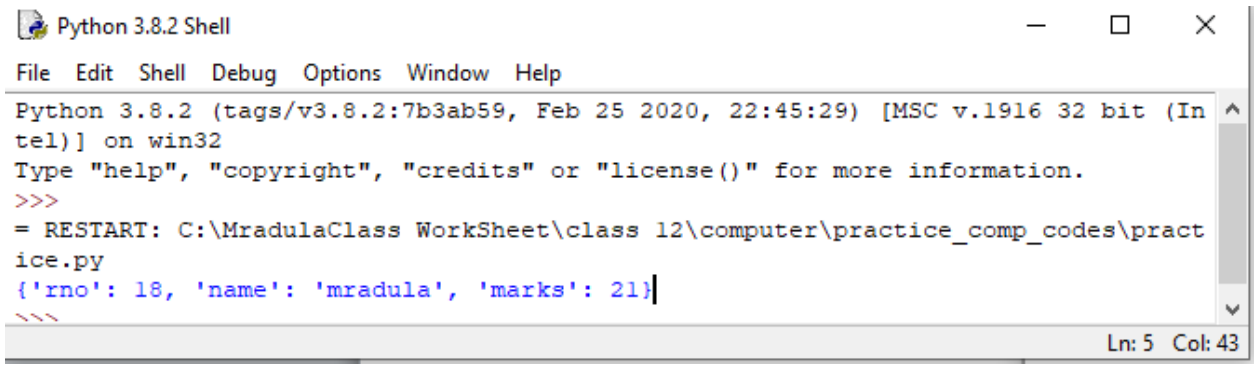
```
import pickle
def writefile():
    d={}
    fobj=open("student.txt","ab")
    d["rno"]=int(input('enter the rno'))
    d["name"]=input('enter the name')
    d["marks"]=int(input('enter the marks'))
    pickle.dump(d, fobj)
    fobj.close()
writefile()
```





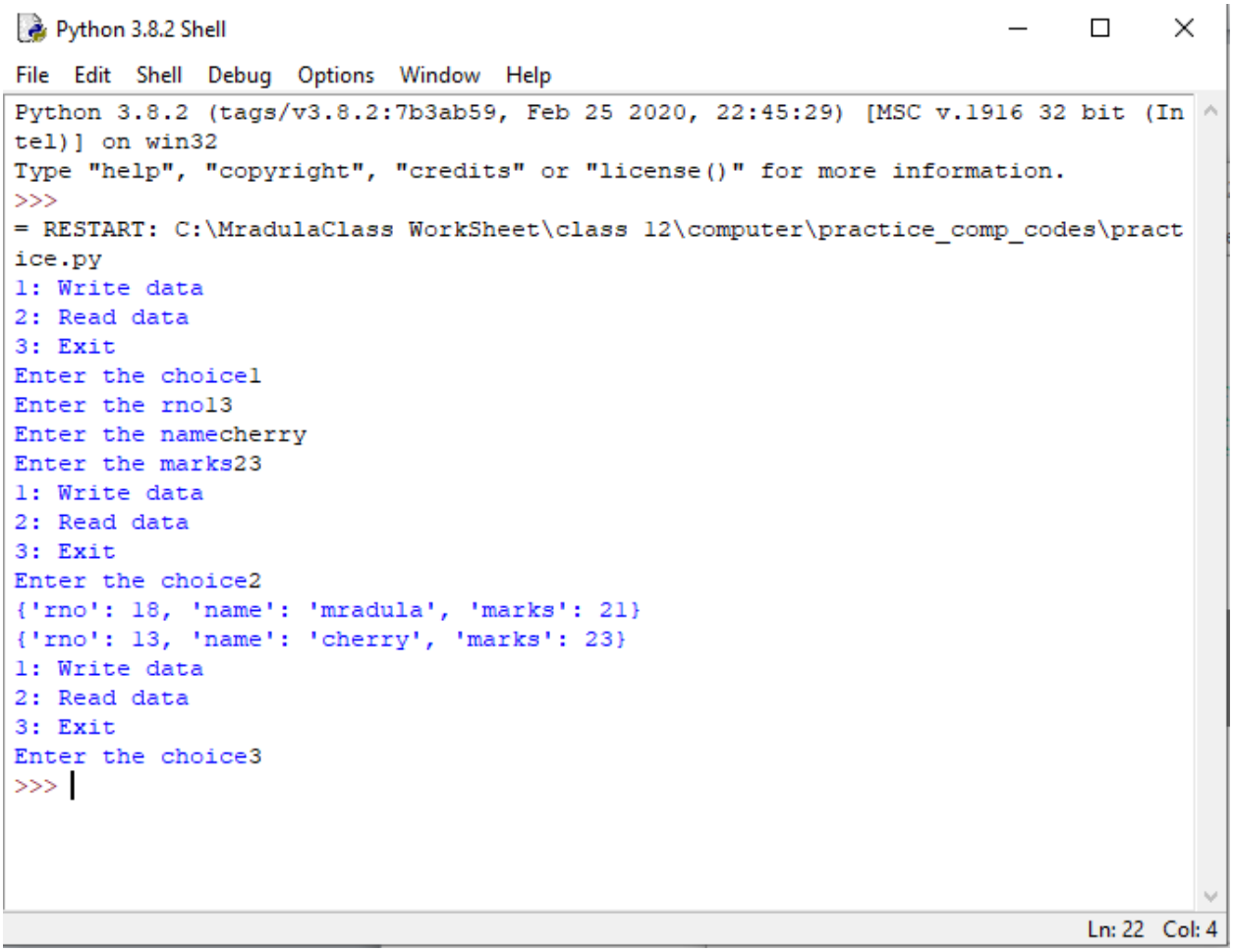
8. udf read all objects from file student.txt

```
import pickle
def readdata():
    f=open("student.txt","rb")
    while(true):
        try:
            obj=pickle.load(f)
            print(obj)
        except eoferror:
            f.close()
            break
readdata()
```



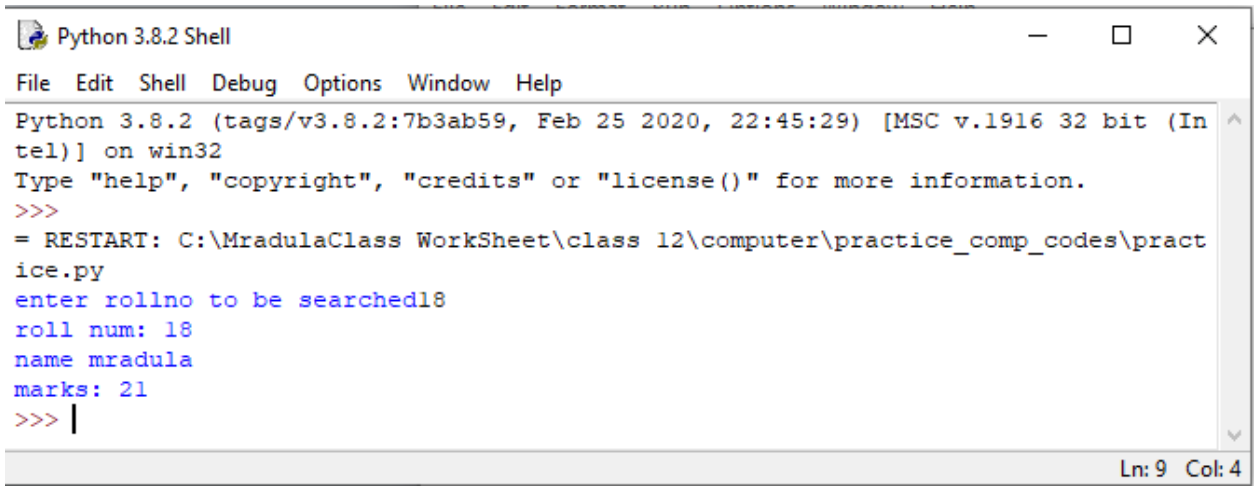
9. implement menu driven

```
import pickle
def writefile():
    d={}
    fobj=open("student.txt","ab")
    d["rno"]=int(input('enter the rno'))
    d["name"]=input('enter the name')
    d["marks"]=int(input('enter the marks'))
    pickle.dump(d, fobj)
    fobj.close()


def readdata():
    f=open("student.txt","rb")
    while(true):
        try:
            obj=pickle.load(f)
            print(obj)
        except eoferror:
            f.close()
            break

def menu():
    while(true):
        print("1: write data")
        print("2: read data")
        print("3: exit")
        ch=int(input('enter the choice'))
        if(ch==1):
            writefile()
        elif(ch==2):
            readdata()
        elif(ch==3):
            break
menu()
```


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\practice.py
1: Write data
2: Read data
3: Exit
Enter the choice1
Enter the rno13
Enter the namecherry
Enter the marks23
1: Write data
2: Read data
3: Exit
Enter the choice2
{'rno': 18, 'name': 'mradula', 'marks': 21}
{'rno': 13, 'name': 'cherry', 'marks': 23}
1: Write data
2: Read data
3: Exit
Enter the choice3
>>>
Ln: 22 Col: 4

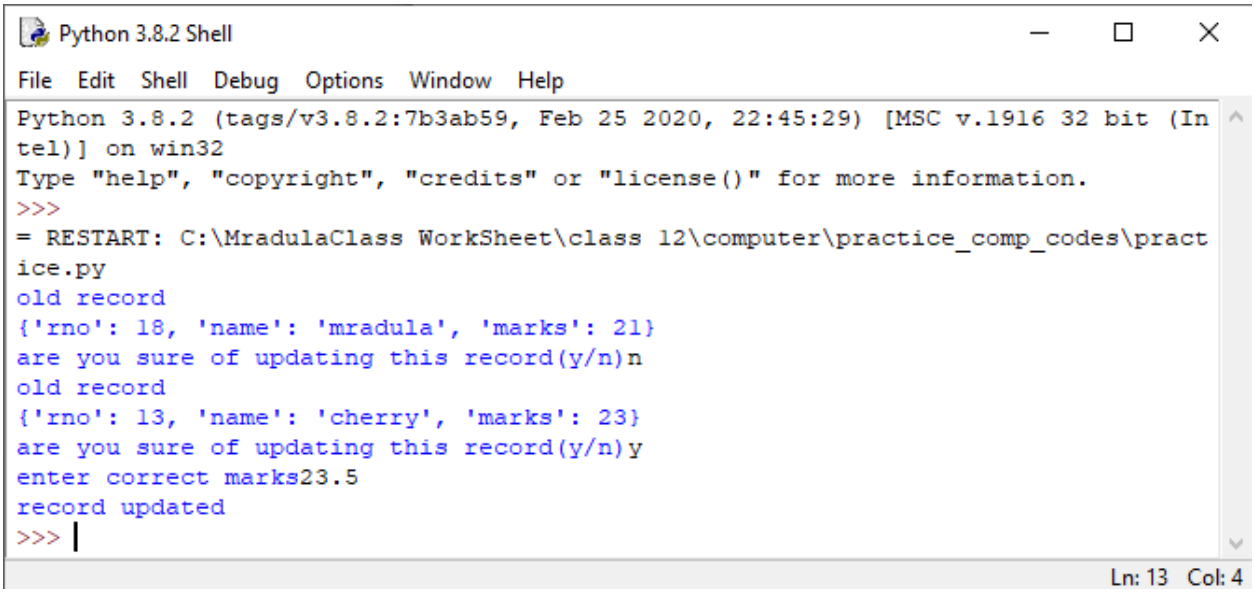
10. search by roll no

```
import pickle
def search_rno():
    f=open("student.txt","rb")
    flag = false
    r=int(input("enter rollno to be searched"))
    while true:
        try:
            rec=pickle.load(f)
            if rec['rno'] == r:
                print("roll num:",rec["rno"])
                print("name",rec["name"])
                print("marks:",rec["marks"])
                flag = true
        except eoferror:
            break
    if flag == false:
        print("no records found")
    f.close()
search_rno()
```



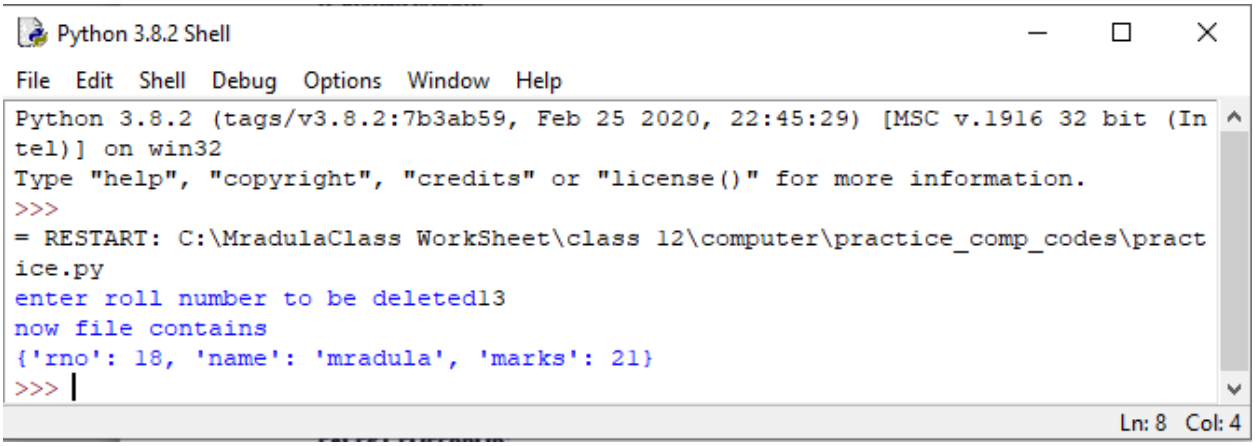
11. update record

```
import pickle
f=open("student.txt","rb")
reclst=[]
while true:
    try:
        rec=pickle.load(f)
        reclst.append(rec)
    except eoferror:
        break
f.close()
flag=false
ans="n"
for i in range (len(reclst)):
    flag=true
    print("old record")
    print(reclst[i])
    ans=input("are you sure of updating this record(y/n)")
    if ans.lower()=="y":
        m=eval(input("enter correct marks"))
        reclst[i]["marks"]=m
if ans=='y':
    f=open("student.txt","wb")
    for x in reclst:
        pickle.dump(x,f)
    print("record updated")
f.close()
if flag==false:
    print("record not found")
```



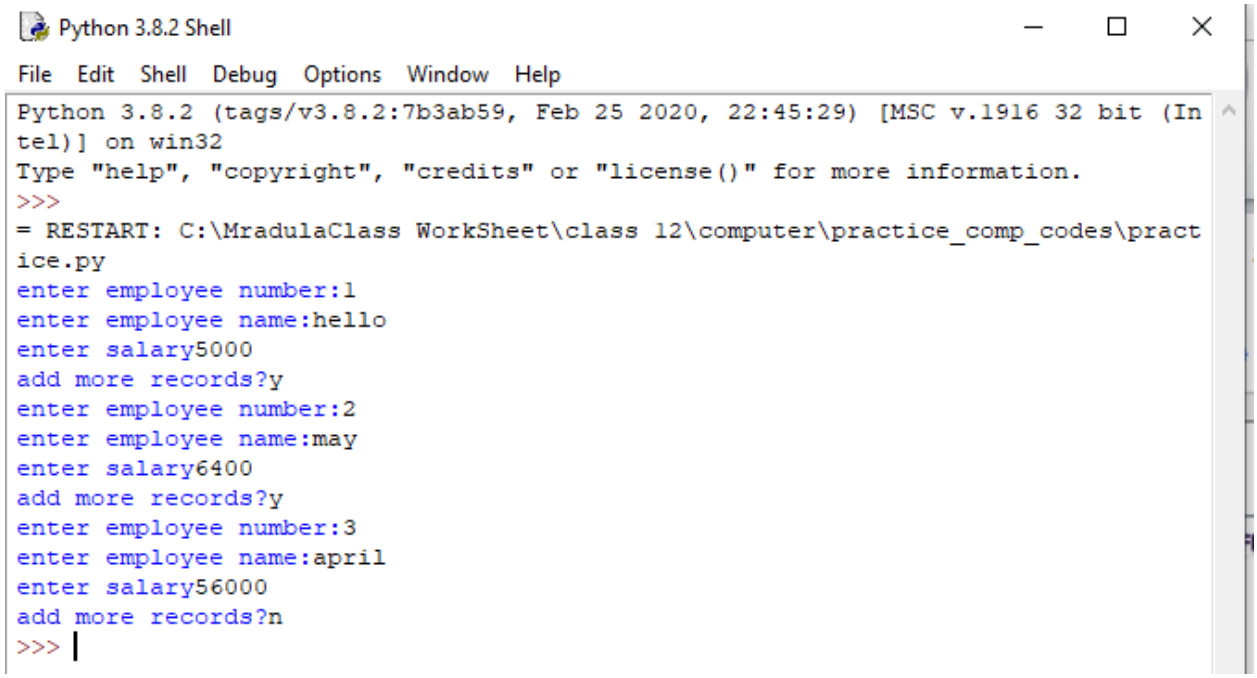
12. delete record

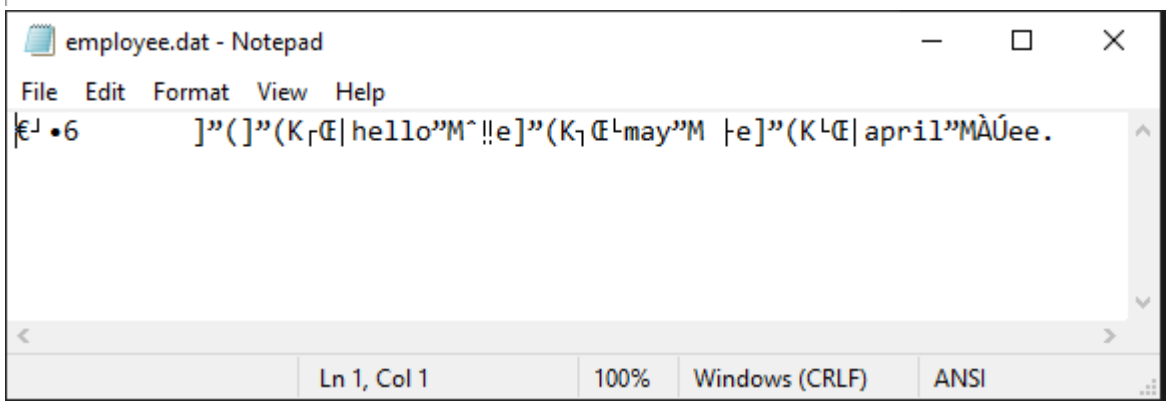
```
import pickle
f=open("student.txt","rb")
reclst=[]
r=int(input("enter roll number to be deleted"))
while true:
    try:
        rec=pickle.load(f)
        reclst.append(rec)
    except eoferror:
        break
f.close()
f=open("student.txt","wb")
for x in reclst:
    if x["rno"]==r:
        continue
    else:
        pickle.dump(x,f)
f.close()
print("now file contains")
f=open("student.txt","rb")
while true:
    try:
        obj=pickle.load(f)
        print(obj)
    except eoferror:
        f.close()
        break
```



13. pickling – storing employee details in binary file

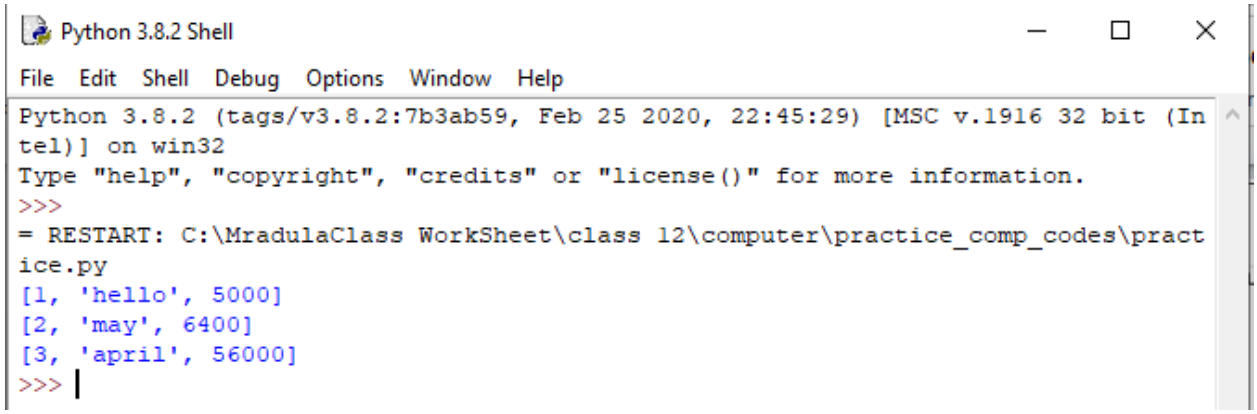
```
import pickle
emp=[]
f=open("employee.dat","wb")
ans="y"
while ans=="y":
    eno= int(input("enter employee number:"))
    name=input("enter employee name:")
    salary=int(input("enter salary"))
    emp.append([eno,name,salary])
    ans=input("add more records?")
pickle.dump(emp,f)
f.close()
```





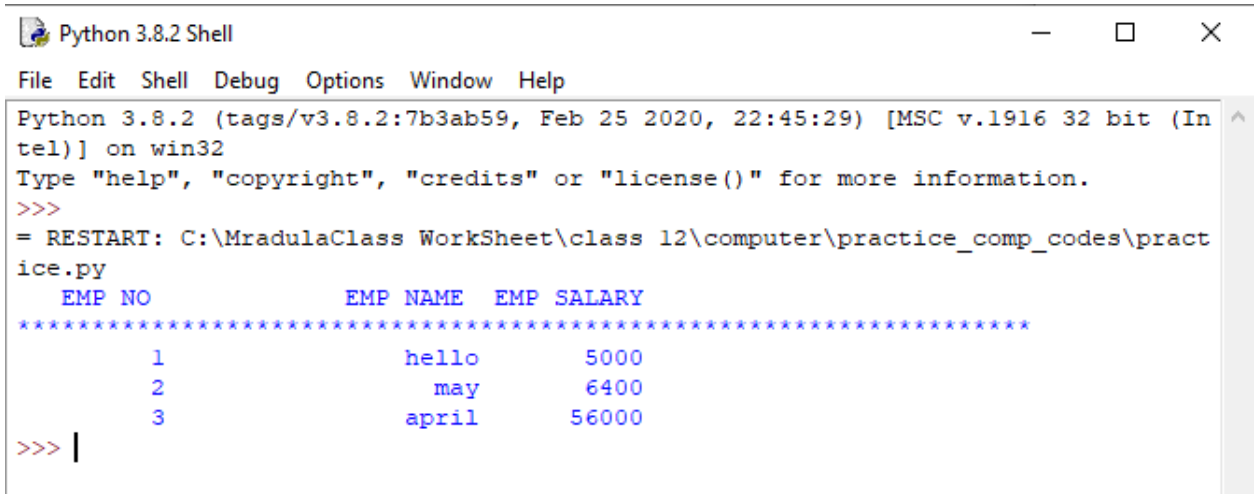
14. un-pickling – reading and display record

```
import pickle
emp=[]
f=open("employee.dat","rb")
ans="y"
while true:
    try:
        emp=pickle.load(f)
    except eoferror:
        break
for e in emp:
    print(e)
f.close()
```



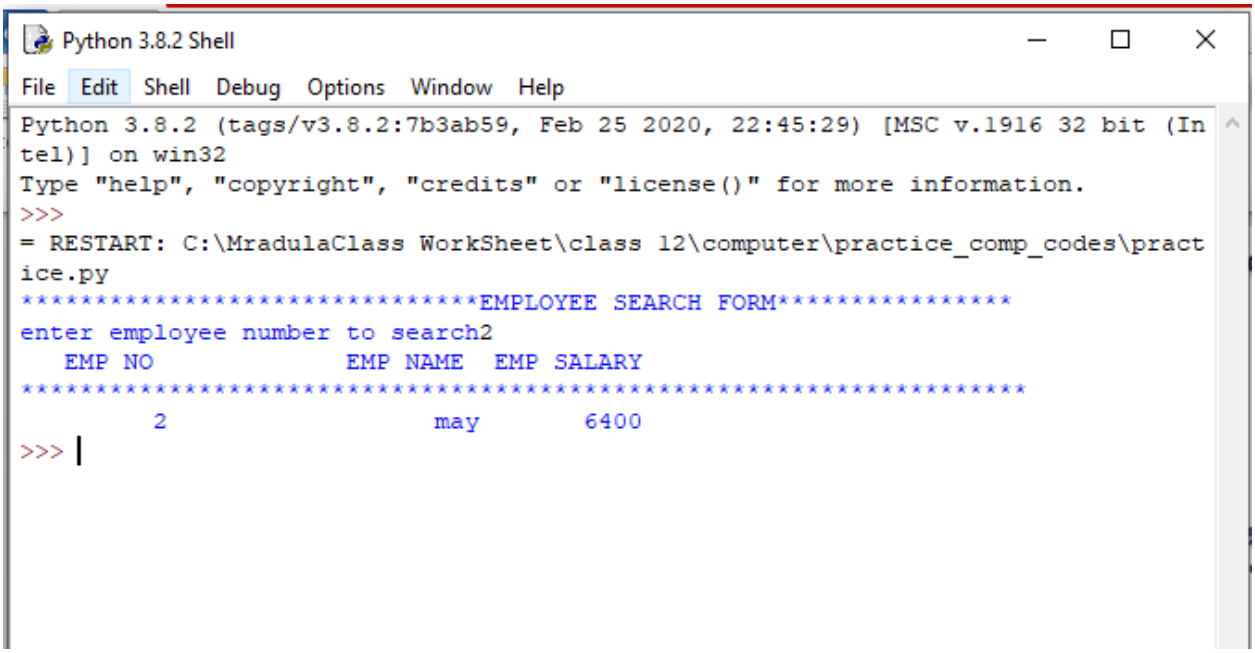
15. un-pickling– display record (formatted output)

```
import pickle
emp=[]
f=open("employee.dat","rb")
ans="y"
while true:
   try:
      emp=pickle.load(f)
   except eoferror:
      break
print("%10s"%"emp no ","%20s"%"emp name ","%10s"%"emp salary")
print("**********************************************************************")
for e in emp:
   print("%10s"%e[0],"%20s"%e[1],"%10s"%e[2])
f.close()
```



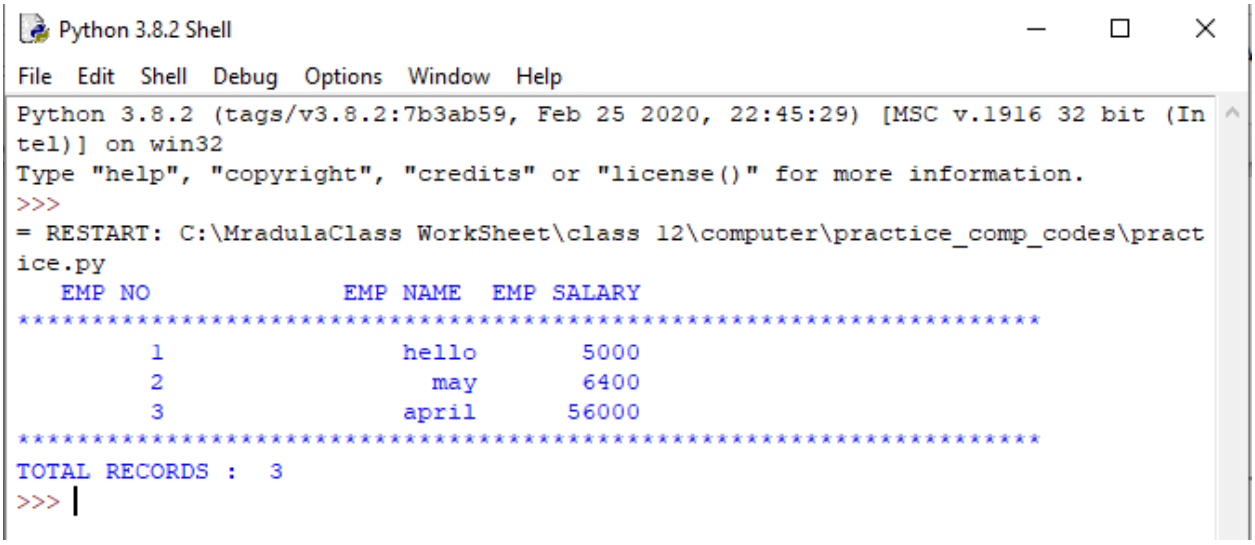
16. searching in binary file

```
import pickle
emp=[]
f=open("employee.dat","rb")
ans="y"
print("*****************************employee search form***************")
en=int(input("enter employee number to search"))
found=false
while true:
    try:
        emp=pickle.load(f)
    except eoferror:
        break
print("%10s"%"emp no ","%20s"%"emp name ","%10s"%"emp salary")
print("**********************************************************************")
for e in emp:
    if (e[0]==en):
        print("%10s"%e[0],"%20s"%e[1],"%10s"%e[2])
        found=true
        break
if found==false:
    print("##sorry employee number not found##")
f.close()
```



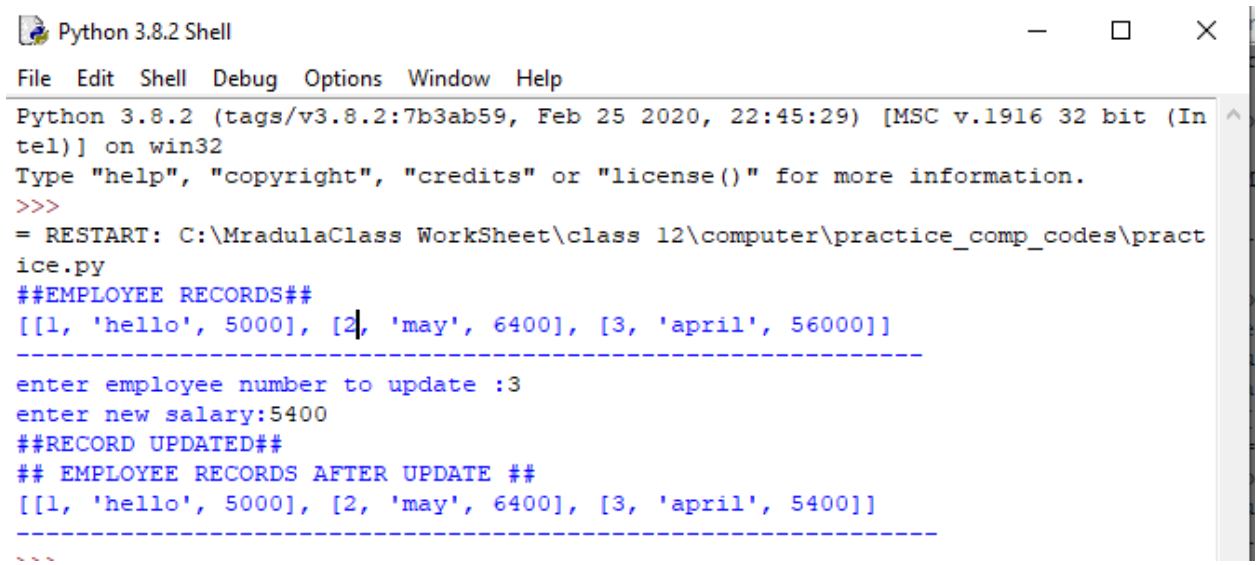
17. finding number of record in binary file

```
import pickle
emp=[]
f=open("employee.dat","rb")
emp=pickle.load(f)
l=len(emp)
while true:
    try:
        emp=pickle.load(f)
    except eoferror:
        break
print("%10s"%"emp no ","%20s"%"emp name ","%10s"%"emp salary")
print("**************************************************************************")
for e in emp:
    print("%10s"%e[0],"%20s"%e[1],"%10s"%e[2])
print("**************************************************************************")
print("total records : ",l)
```



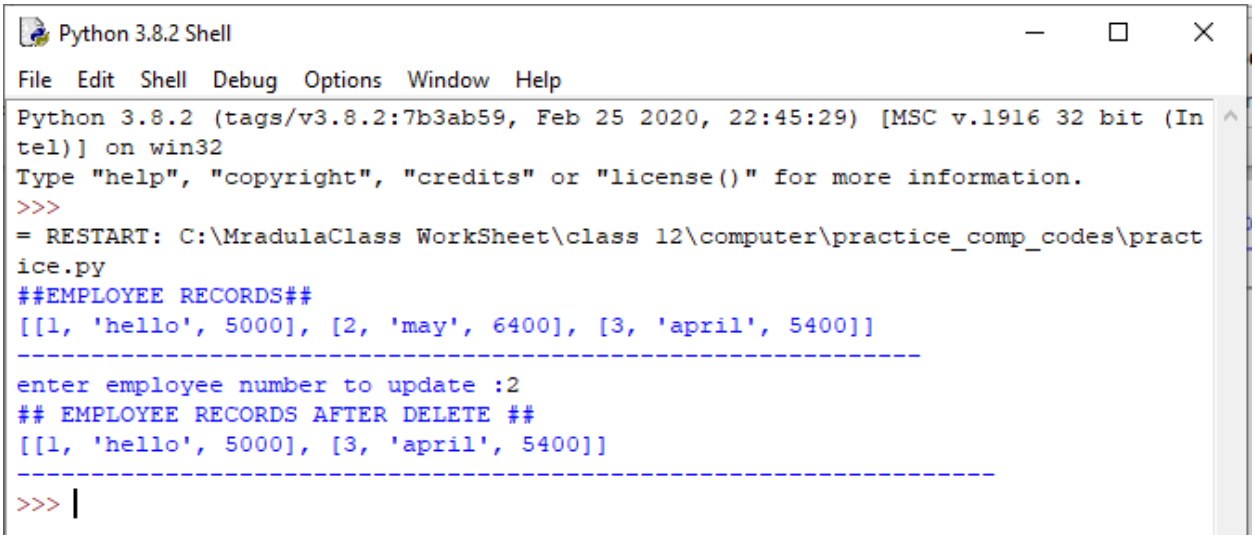
18. updating employee record

```
import pickle
emp=[]
f=open("employee.dat","rb")
emp=pickle.load(f)
print("##employee records##")
print(emp)
print("------------------------------------------------------------")
f.close()
f=open("employee.dat","wb")
found=false
en=int(input("enter employee number to update :"))
for i in range(len(emp)):
    if emp[i][0]==en:
        sl=int(input("enter new salary:"))
        emp[i][2]=sl
        found=true
        print("##record updated##")
if not found:
    print("## no such employee number ##")
pickle.dump(emp,f)
f.close()
f=open("employee.dat","rb")
emp=pickle.load(f)
print("## employee records after update ##")
print(emp)
print("------------------------------------------------------------")
```



19. deleting employee record

```
import pickle
emp=[]
f=open("employee.dat","rb")
emp=pickle.load(f)
print("##employee records##")
print(emp)
print("------------------------------------------------------------")
f.close()
f=open("employee.dat","wb")
found=false
en=int(input("enter employee number to update :"))
emp2=[]
for i in range(len(emp)):
    if emp[i][0]!=en:
        emp2.append(emp[i])
pickle.dump(emp2,f)
f.close()
f=open("employee.dat","rb")
emp=pickle.load(f)
print("## employee records after delete ##")
print(emp)
print("------------------------------------------------------------")
```



20. following is the structure of each record in a data file named ”product.dat”. {"prod_code":value, "prod_desc":value, "stock":value}
the values for prod_code and prod_desc are strings, and the value for stock is an integer. write a function in python to update the file with a new value of stock. the stock and the product_code, whose stock is to be updated, are to be input during the execution of the function.

```
import pickle
def update():
    cd=input("enter product code whose stock is to be updated")
    f=open("product.dat",'rb')
    flag=false
    rec_list=[]
    while true:
        try:
            rec=pickle.load(f)
            rec_list.append(rec)
        except eoferror:
            f.close()
            break
    for i in range(len(rec_list)):
        if rec_list[i]['code']==cd:
            flag=true
            rec_list[i]['stock']=int(input("enter new value of stock"))
            break
    if flag==false:
        print("product code not found")
    else:
        f=open("product.dat",'wb')
    for rec in rec_list:
        pickle.dump(rec,f)
    print("record updated")
    f.close()

def enter_data():
    d={}
    f=open("product.dat",'ab')
    pc=input("enter product code")
    pd=input("enter product description")
    st=int(input("enter stock"))
    d['code']=pc
    d['desc']=pd
    d['stock']=st
    pickle.dump(d,f)
```

```
    f.close()
    print("record inserted")

def disp_all():
    f=open("product.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
    f.close()
#driver code
while true:
    print("1: enter record")
    print("2: display all")
    print("3: update record")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
        disp_all()
    elif ch==3:
        update()
    elif ch==0:
        break
```

```
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\practice.py
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice1
enter product codec01
enter product descriptionshampoo
enter stock25
record inserted
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice2
{'code': 'a01', 'desc': 'chocolate', 'stock': 20}
{'code': 'a02', 'desc': 'strawberry', 'stock': 90}
{'code': 'b01', 'desc': 'lip gloss', 'stock': 25}
{'code': 'b02', 'desc': 'earrings', 'stock': 30}
{'code': 'c01', 'desc': 'shampoo', 'stock': 25}
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice3
enter product code whose stock is to be updatedc01
enter new value of stock35
record updated
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice2
{'code': 'a01', 'desc': 'chocolate', 'stock': 20}
{'code': 'a02', 'desc': 'strawberry', 'stock': 90}
{'code': 'b01', 'desc': 'lip gloss', 'stock': 25}
{'code': 'b02', 'desc': 'earrings', 'stock': 30}
{'code': 'c01', 'desc': 'shampoo', 'stock': 35}
1: Enter record
2: Display all
3: Update record
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice2
{'code': 'a01', 'desc': 'chocolate', 'stock': 20}
{'code': 'a02', 'desc': 'strawberry', 'stock': 90}
{'code': 'b01', 'desc': 'lip gloss', 'stock': 25}
{'code': 'b02', 'desc': 'earrings', 'stock': 30}
{'code': 'c01', 'desc': 'shampoo', 'stock': 35}
1: Enter record
2: Display all
3: Update record
0: Exit
Enter choice0
>>>
```

21. given a binary file “stuq2.dat”, containing records of the following type: {‘s_admno’:value, ‘s_name’:value, ‘percentage’:value} where these three values are: s_admno – admission number of student (string) s_name – name of student (string) percentage – marks percentage of student (float) write a function in python that would read contents of the file “student.dat” and display the details of those students whose percentage is equal to or above 75.

```
import pickle
def distinction():
    f=open("stuq2.dat",'rb')
    flag=false
    rec={}
    while true:
        try:
            rec=pickle.load(f)
            if rec['perc']>=75:
                    print(rec)
        except eoferror:
            f.close()
            break
def enter_data():
    d={}
    f=open("stuq2.dat",'ab')
    ad=input("enter admn no")
    nm=input("enter stu name")
    pr=int(input("enter perc"))
    d['adm']=ad
    d['name']=nm
    d['perc']=pr
    pickle.dump(d,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("stuq2.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
    f.close()
#driver code
while true:
    print("1: enter record")
```

```
  print("2: display all")
  print("3: display distinction holders")
  print("0: exit")
  ch=int(input("enter choice"))
  if ch==1:
     enter_data()
  elif ch==2:
     disp_all()
  elif ch==3:
     distinction()
  elif ch==0:
     break
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\pract
ice.py
1: Enter record
2: Display all
3: display distinction holders
0: Exit
Enter choice1
enter admn no11234
enter stu namepriya
enter perc94
record inserted
1: Enter record
2: Display all
3: display distinction holders
0: Exit
Enter choice2
{'adm': '11189', 'name': 'mradula', 'perc': 86}
{'adm': '43855', 'name': 'hello', 'perc': 54}
{'adm': '9985', 'name': 'chandru', 'perc': 87}
{'adm': '09567', 'name': 'april', 'perc': 94}
{'adm': '11234', 'name': 'priya', 'perc': 94}
1: Enter record
2: Display all
3: display distinction holders
0: Exit
Enter choice3
{'adm': '11189', 'name': 'mradula', 'perc': 86}
{'adm': '9985', 'name': 'chandru', 'perc': 87}
{'adm': '09567', 'name': 'april', 'perc': 94}
{'adm': '11234', 'name': 'priya', 'perc': 94}
1: Enter record
2: Display all
3: display distinction holders
0: Exit
Enter choice0
>>>
```

22. assuming the tuple vehicle as follows: (vehicletype, no_of_wheels) where vehicletype is a string and no_of_wheels is an integer. write a function showfile() to read all the records present in an already existing binary file speed_tuple.dat and display them on the screen, also count the number of records present in the file.

```
import pickle
def enter_data():
    t=()
    f=open("speed_tuple.dat",'ab')
    vt=input("enter vehicle type")
    now=int(input("enter no. of wheels"))
    t=(vt,now)
    pickle.dump(t,f)
    f.close()
    print("record inserted")
def showfile():
    f=open("speed_tuple.dat",'rb')
    ctr=0
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
            ctr+=1
        except eoferror:
            break
    f.close()
    print("no. of records read:",ctr)
#driver code
while true:
    print("1: enter record")
    print("2: display all")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
        showfile()
    elif ch==0:
        break
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\pract
ice.py
1: Enter record
2: Display all
0: Exit
Enter choice1
enter vehicle typeauto rikshaw
enter no. of wheels3
record inserted
1: Enter record
2: Display all
0: Exit
Enter choice2
('car', 4)
('truck', 8)
('bike', 2)
('auto rikshaw', 3)
No. of records read: 4
1: Enter record
2: Display all
0: Exit
Enter choice0
>>>
```

23. write a function in python to search for a bookno from a binary file “book_dict.dat”, assuming the binary file is containing the records of the following type: {"bookno":value, "book_name":value} assume that bookno is an integer.

```
import pickle
def search():
    bn=input("enter book number whose details are to be searched")
    f=open("book_dict.dat",'rb')
    flag=false
    rec_list=[]
    while true:
        try:
            rec=pickle.load(f)
            rec_list.append(rec)
        except eoferror:
            f.close()
            break
    for i in range(len(rec_list)):
        if rec_list[i]['bookno']==bn:
            flag=true
            print(rec_list[i])
            break
            f.close()
    if flag==false:
        print("book number not found")
def enter_data():
    d={}
    f=open("book_dict.dat",'ab')
    bno=input("enter book number")
    bn=input("enter book name")
    d['bookno']=bno
    d['book_name']=bn
    pickle.dump(d,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("book_dict.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
```

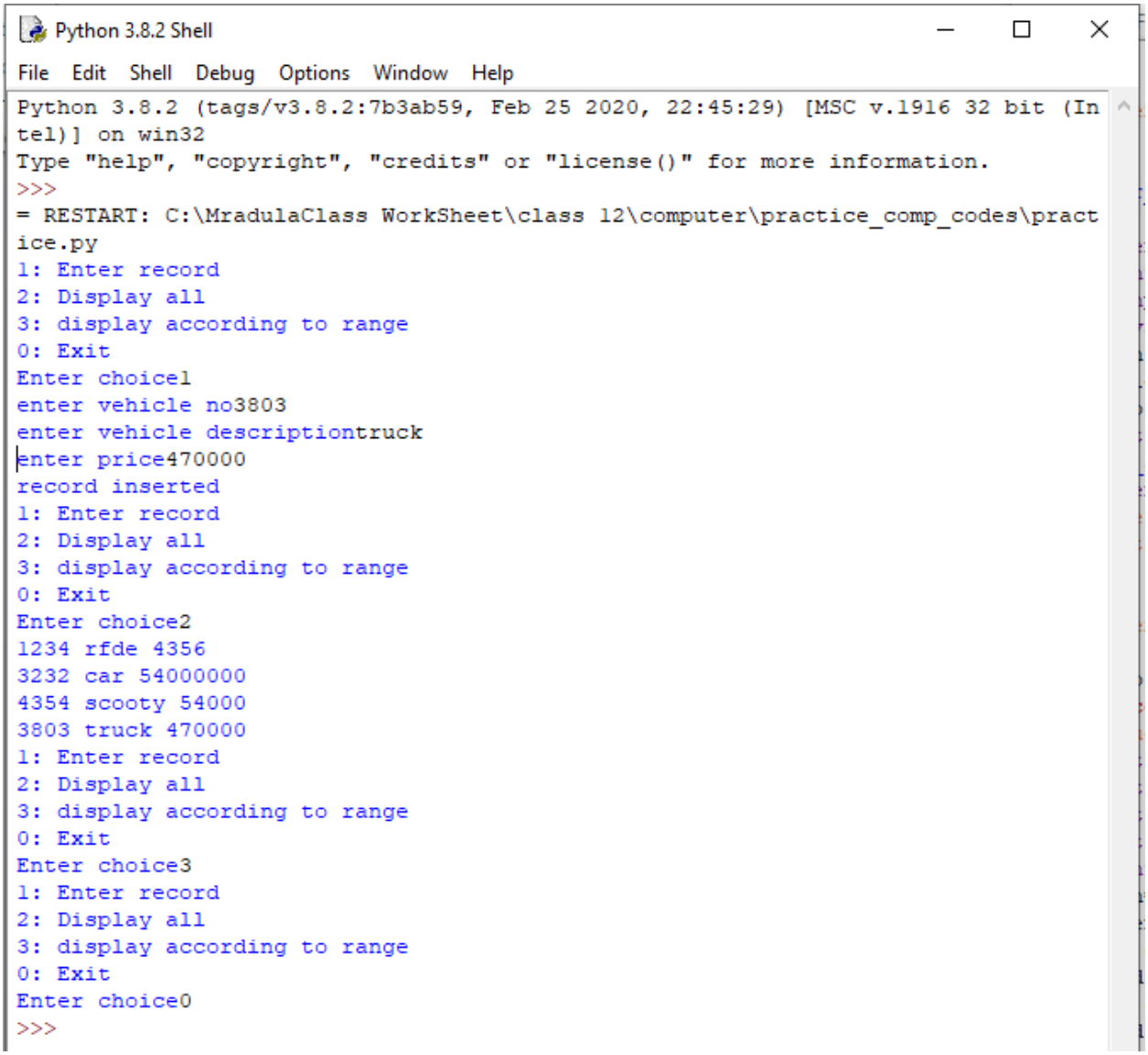
```
    f.close()
while true:
    print("1: enter record")
    print("2: display all")
    print("3: search book no")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
        disp_all()
    elif ch==3:
        search()
    elif ch==0:
        break
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\pract
ice.py
1: Enter record
2: Display all
3: Search book no
0: Exit
Enter choice1
enter book number5
enter book namewings of fire
record inserted
1: Enter record
2: Display all
3: Search book no
0: Exit
Enter choice2
{'BookNo': '1', 'Book_name': 'harry potter'}
{'BookNo': '2', 'Book_name': 'nancy drew'}
{'BookNo': '3', 'Book_name': '13 reasons why'}
{'BookNo': '4', 'Book_name': 'the fault in our stars'}
{'BookNo': '5', 'Book_name': 'wings of fire'}
1: Enter record
2: Display all
3: Search book no
0: Exit
Enter choice3
enter book number whose details are to be searched3
{'BookNo': '3', 'Book_name': '13 reasons why'}
1: Enter record
2: Display all
3: Search book no
0: Exit
Enter choice0
>>>
```

24. assuming that a binary file vintage.dat contains records of the following type, write a function in python to read the data vintage.dat and display those vintage vehicles, which are priced between 200000 and 250000. [vno, vdesc, price]

```
import pickle
def disp_price_range():
    f=open("vintage.dat",'rb')
    flag=false
    rec=[]
    while true:
        try:
            rec=pickle.load(f)
            if (200000<=rec[2]<=250000):
                print(rec)
        except eoferror:
            f.close()
            break
def enter_data():
    l=[]
    f=open("vintage.dat",'ab')
    vn=int(input("enter vehicle no"))
    vd=input("enter vehicle description")
    pr=eval(input("enter price"))
    l=[vn,vd,pr]
    pickle.dump(l,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("vintage.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec[0],rec[1],rec[2])
        except eoferror:
            break
    f.close()
#driver code
while true:
    print("1: enter record")
    print("2: display all")
    print("3: display according to range")
    print("0: exit")
    ch=int(input("enter choice"))
```

```
if ch==1:
    enter_data()
elif ch==2:
    disp_all()
elif ch==3:
    disp_price_range()
elif ch==0:
    break
```



25. write a function in python to search for a laptop from a binary file “laptop.dat” containing the records of following type. the user should enter the model number and the function should display the details of the laptop. [modelno, ram, hdd, details] where modelno, ram, hdd are integers, and details is a string.

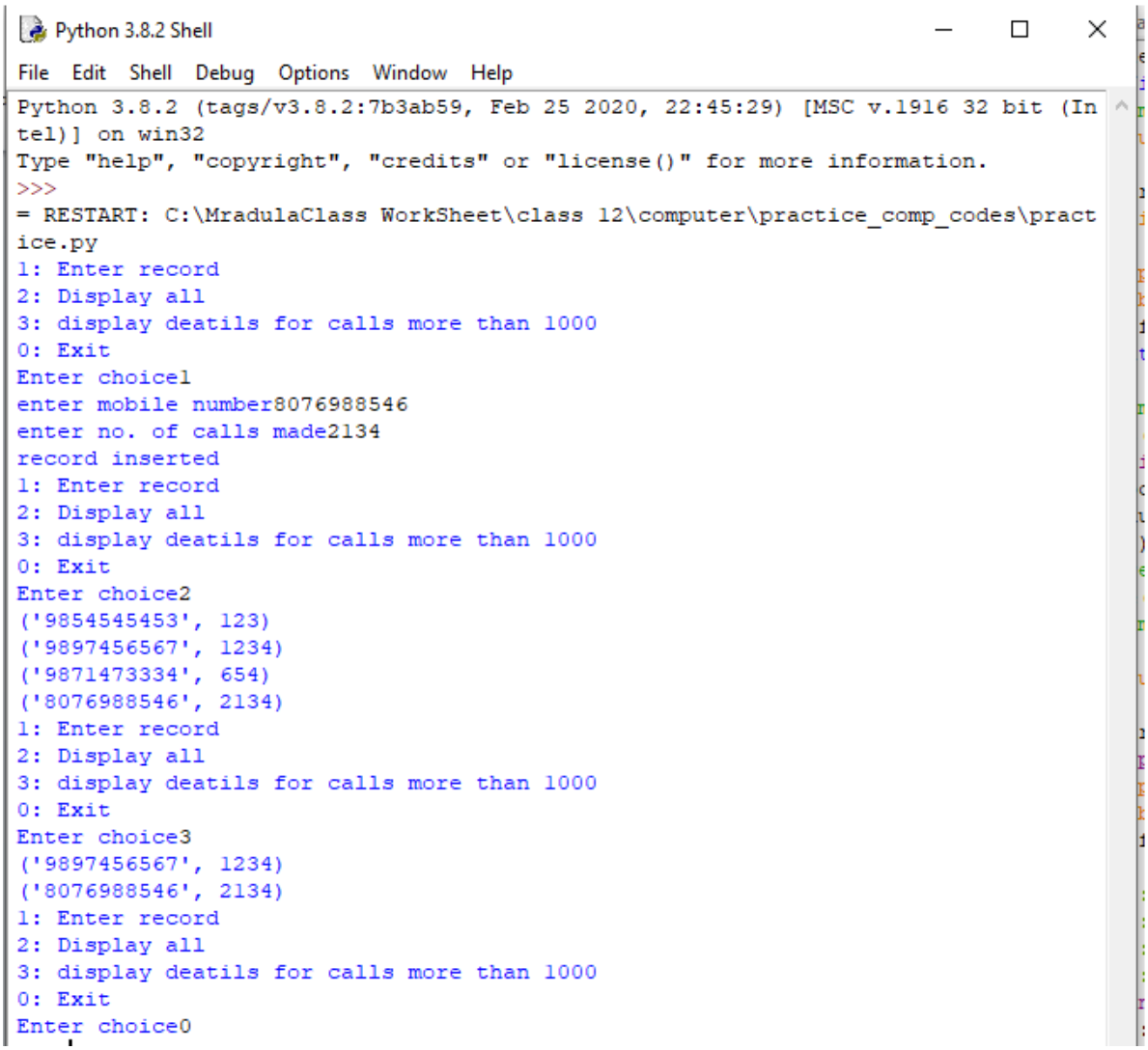
```
import pickle
def disp_model_details():
    f=open("laptop.dat",'rb')
    flag=false
    rec=[]
    m=int(input("enter model no to be searched"))
    while true:
        try:
            rec=pickle.load(f)
            if rec[0]==m:
                print(rec)
                flag=true
        except eoferror:
            f.close()
            break
    if flag==false:
        print("invalid model number")
def enter_data():
    l=[]
    f=open("laptop.dat",'ab')
    mn=int(input("enter model no"))
    rm=int(input("enter ram"))
    hd=int(input("enter hdd"))
    det=input("enter details")
    l=[mn,rm,hd,det]
    pickle.dump(l,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("laptop.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec[0],rec[1],rec[2],rec[3])
        except eoferror:
            break
            f.close()
while true:
```

```
print("1: enter record")
print("2: display all")
print("3: display according to range")
print("0: exit")
ch=int(input("enter choice"))
if ch==1:
    enter_data()
elif ch==2:
    disp_all()
elif ch==3:
    disp_model_details()
elif ch==0:
    break
```

26. write a function in python to search for the details (number and calls) of those mobile phones which have more than 1000 calls from a binary file “mobile.dat”. assuming that this binary file contains records of the following type: (number,calls)

```
import pickle
def search_file():
    f=open("mobile.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            if rec[1]>1000:
                print(rec)
        except eoferror:
            break
            f.close()
def enter_data():
    t=()
    f=open("mobile.dat",'ab')
    mn=input("enter mobile number")
    noc=int(input("enter no. of calls made"))
    t=(mn,noc)
    pickle.dump(t,f)
    f.close()
    print("record inserted")
def showfile():
    f=open("mobile.dat",'rb')
    ctr=0
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
            f.close()
while true:
    print("1: enter record")
    print("2: display all")
    print("3: display deatils for calls more than 1000")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
```

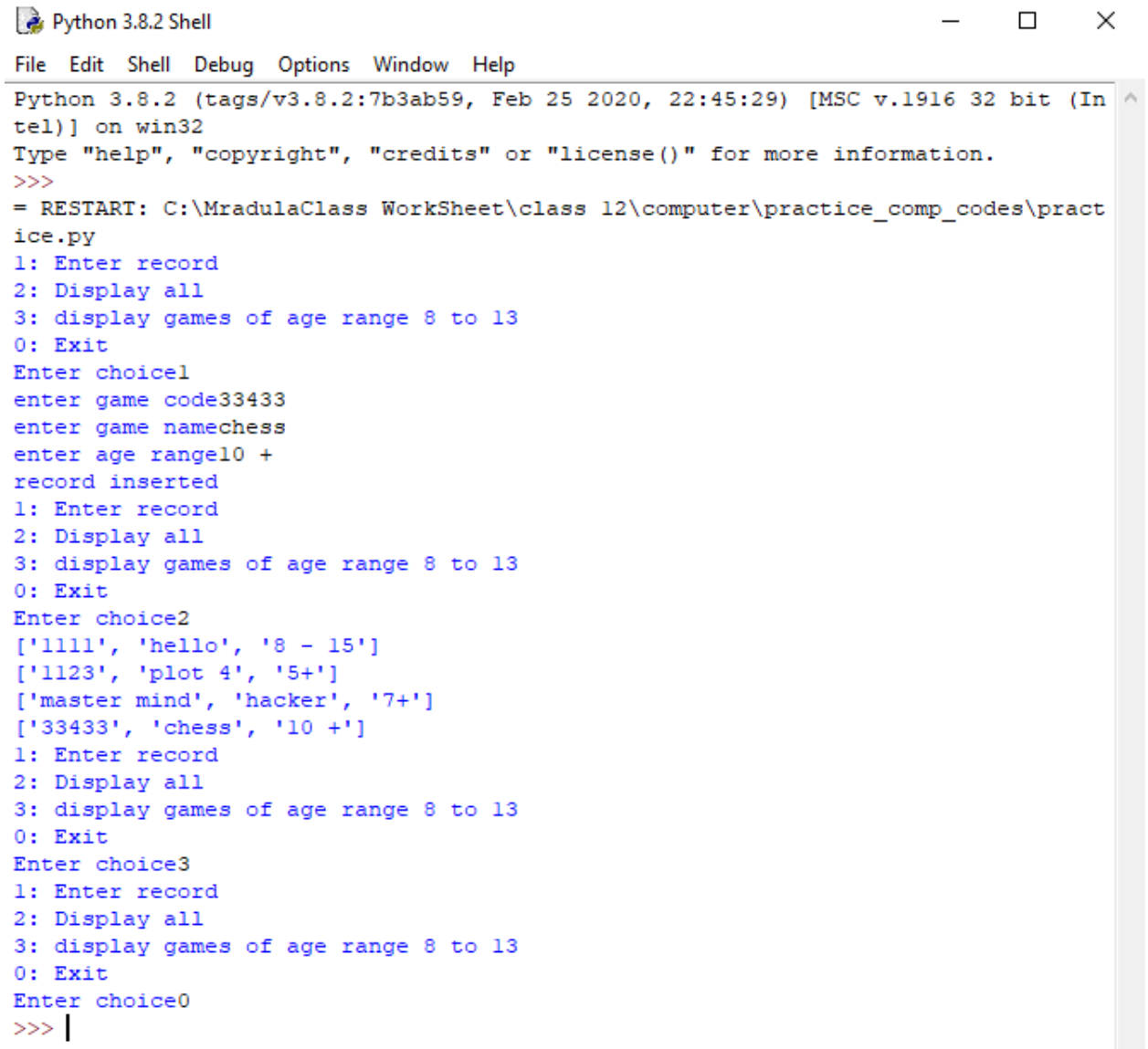
```
        showfile()
    elif ch==3:
        search_file()
    elif ch==0:
        break
```



27. write a function in python to read the records from binary file games.dat and display the details of those games, which are meant for children of agerange “8 to 13”. assume that the file games.dat contains records of the following type: [gamecode, gamename, agerange]

```
import pickle
def show_age_range():
    f=open("games.dat",'rb')
    flag=false
    rec=[]
    while true:
        try:
            rec=pickle.load(f)
            if rec[2]=="8 to 13":
                print(rec)
        except eoferror:
            f.close()
            break
def enter_data():
    l=[]
    f=open("games.dat",'ab')
    gc=input("enter game code")
    gn=input("enter game name")
    ar=input("enter age range")
    l=[gc,gn,ar]
    pickle.dump(l,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("games.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
            f.close()
while true:
    print("1: enter record")
    print("2: display all")
    print("3: display games of age range 8 to 13")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
```

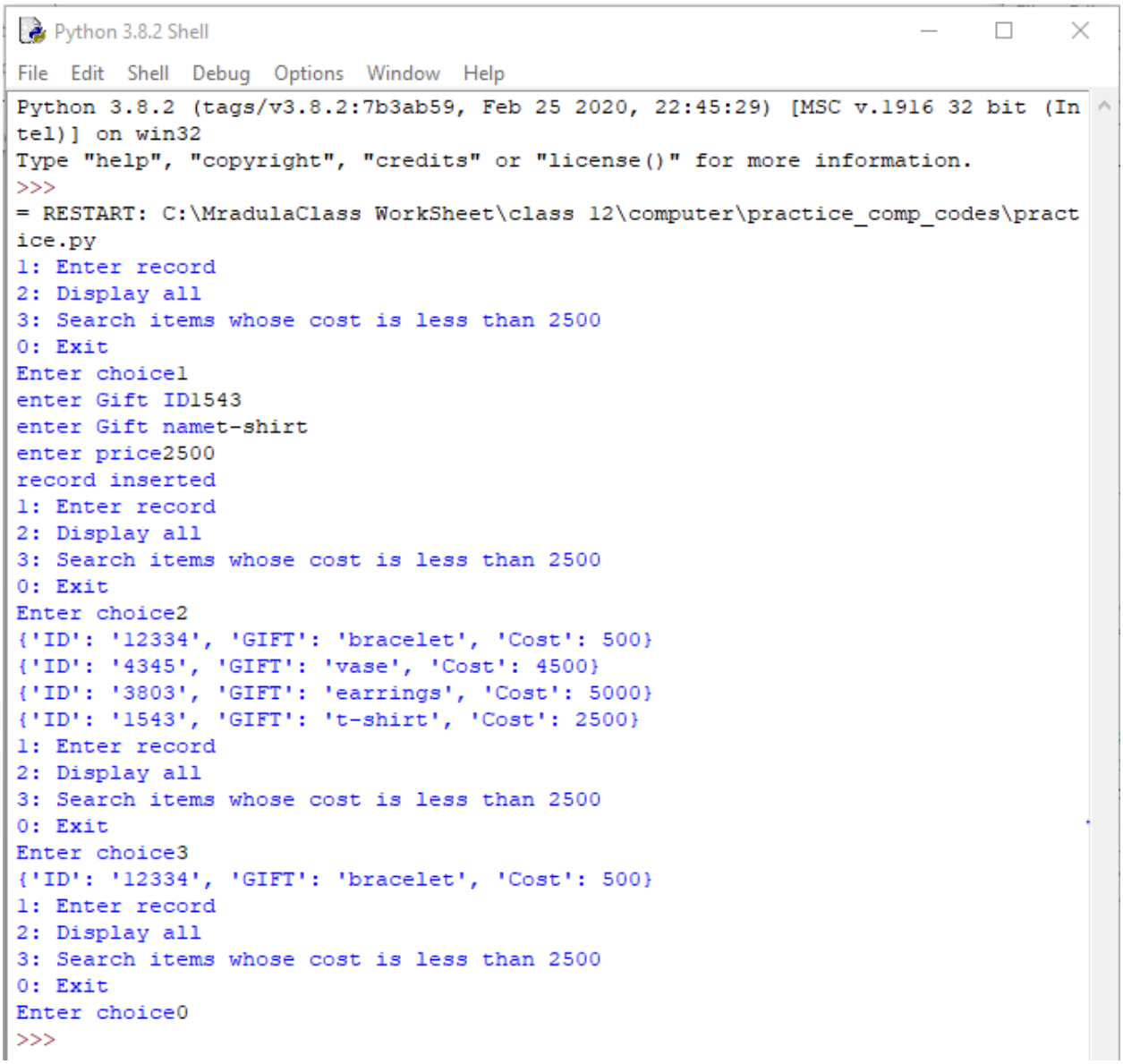
```
    enter_data()
  elif ch==2:
    disp_all()
  elif ch==3:
    show_age_range()
  elif ch==0:
    break
```



28. write a function in python to read each record of a binary file items.dat, find and display those items which costs less than 2500. assume that the file items.dat is created with the help of objects of the following type: {"id":string, "gift":string, "cost":integer}

```
import pickle
def search():
    f=open("items_q9.dat",'rb')
    flag=false
    rec_list=[]
    while true:
        try:
            rec=pickle.load(f)
            rec_list.append(rec)
        except eoferror:
            f.close()
            break
    for i in range(len(rec_list)):
        if rec_list[i]['cost']<2500:
            flag=true
            print(rec_list[i])
            break
    if flag==false:
        print("not found")
def enter_data():
    d={}
    f=open("items_q9.dat",'ab')
    gid=input("enter gift id")
    gn=input("enter gift name")
    pr=int(input("enter price"))
    d['id']=gid
    d['gift']=gn
    d['cost']=pr
    pickle.dump(d,f)
    f.close()
    print("record inserted")
def disp_all():
    f=open("items_q9.dat",'rb')
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
```

```
    f.close()
while true:
    print("1: enter record")
    print("2: display all")
    print("3: search items whose cost is less than 2500")
    print("0: exit")
    ch=int(input("enter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
        disp_all()
    elif ch==3:
        search()
    elif ch==0:
        break
```



29. write a definition for function bumper() in python to read each object of a binary file items.dat, find and copy details of those items, whose cost is less than 2000 to the file “discount.dat”. assume that the file items.dat is created with the help of objects of the following type: {"id":string, "gift":string, "cost":integer} display the contents of the file “items.dat” and “discount.dat”

```
import pickle
def bumper():
    fr=open("items_q9.dat",'rb')
    fw=open("discount.dat",'wb')
    flag=false
    rec_list=[]
    while true:
        try:
            rec=pickle.load(fr)
            rec_list.append(rec)
        except eoferror:
            fr.close()
            break
    for i in range(len(rec_list)):
        if rec_list[i]['cost']<2000:
            flag=true
            pickle.dump(rec_list[i],fw)
    fr.close()
    if flag==false:
        print("not found")
    fw.close()
    disp_all("items_q9.dat")
    disp_all("discount.dat")
def search():
    f=open("items_q9.dat",'rb')
    flag=false
    rec_list=[]
    while true:
        try:
            rec=pickle.load(f)
            rec_list.append(rec)
        except eoferror:
            f.close()
            break
    for i in range(len(rec_list)):
        if rec_list[i]['cost']<2500:
            flag=true
            print(rec_list[i])
```

```
            break
    f.close()
    if flag==false:
        print("not found")
def enter_data():
    d={}
    f=open("items_q9.dat",'ab')
    gid=input("enter gift id")
    gn=input("enter gift name")
    pr=int(input("enter price"))
    d['id']=gid
    d['gift']=gn
    d['cost']=pr
    pickle.dump(d,f)
    f.close()
    print("record inserted")
def disp_all(fname):
    f=open(fname,'rb')
    print("details of file",f.name)
    while true:
        try:
            rec=pickle.load(f)
            print(rec)
        except eoferror:
            break
            f.close()
while true:
    print("1: enter record")
    print("2: display all")
    print("3: search items whose cost is less than 2500")
    print("4: copy items whose cost is less than 2000")
    print("0: exit")
    ch=int(input("\nenter choice"))
    if ch==1:
        enter_data()
    elif ch==2:
        fname=input("name of file whose contents are to shown")
        disp_all(fname)
    elif ch==3:
        search()
    elif ch==4:
        bumper()
```

```
    elif ch==0:
        break
= RESTART: C:\MradulaClass WorkSheet\class 12\computer\practice_comp_codes\practice.py
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
Enter choice1
enter Gift ID7890
enter Gift namestick note
enter price600
record inserted
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
Enter choice2
name of file whose contents are to showndiscount.dat
details of file discount.dat
{'ID': '12334', 'GIFT': 'bracelet', 'Cost': 500}
{'ID': '56785', 'GIFT': 'key chain', 'Cost': 550}
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
Enter choice3
{'ID': '12334', 'GIFT': 'bracelet', 'Cost': 500}
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
Enter choice4
details of file items_q9.dat
{'ID': '12334', 'GIFT': 'bracelet', 'Cost': 500}
{'ID': '4345', 'GIFT': 'vase', 'Cost': 4500}
{'ID': '3803', 'GIFT': 'earrings', 'Cost': 5000}
{'ID': '1543', 'GIFT': 't-shirt', 'Cost': 2500}
{'ID': '1234567', 'GIFT': 'necklace', 'Cost': 10000}
{'ID': '56785', 'GIFT': 'key chain', 'Cost': 550}
{'ID': '7890', 'GIFT': 'stick note', 'Cost': 600}
details of file discount.dat
{'ID': '12334', 'GIFT': 'bracelet', 'Cost': 500}
{'ID': '56785', 'GIFT': 'key chain', 'Cost': 550}
{'ID': '7890', 'GIFT': 'stick note', 'Cost': 600}
1: Enter record
2: Display all
3: Search items whose cost is less than 2500
4: Copy items whose cost is less than 2000
0: Exit
Enter choice0
>>>
```