This code will add as many records you add , notice that the portion at the bottom will not run now which is in a multiline comment

```python
import pickle

class item:
    def __init__(self,name,qty):
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.nm,"   ",self.qy)

with open("spcnotes11.dat","wb") as spc_out:
    while(True):
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i

"""
with open("spcnotes11.dat","rb") as spc_in:
    ii=pickle.load(spc_in)
    print(ii.nm,"  ",ii.qy)
    jj=pickle.load(spc_in)
    print(jj.nm,"  ",jj.qy)"""
```

We run it as shown below

```
Enter item name jeera
Enter item qty 20
Wanna cont? y
Enter item name paneer
Enter item qty 10
Wanna cont? y
Enter item name mask
Enter item qty 1000
Wanna cont? n
```

This material is prepapared by Somnath PaulChoudhury

So we read it back , the previous section is now in """ .. """ so it will only display but it displays only a single record

```python
import pickle

class item:
    def __init__(self,name,qty):
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.nm,"   ",self.qy)
"""

with open("spcnotes11.dat","wb") as spc_out:
    while(True):
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i

"""

with open("spcnotes11.dat","rb") as spc_in:
    ii=pickle.load(spc_in)
    print(ii.nm,"   ",ii.qy)
    jj=pickle.load(spc_in)
    print(jj.nm,"   ",jj.qy)
```

It displays a single record

```
jeera    20
paneer    10
>>>
```

When we put a while(True) loop it displays all records but shown errors as it overshoots

```python
import pickle

class item:
    def __init__(self,name,qty):
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.nm,"    ",self.qy)
"""
with open("spcnotes11.dat","wb") as spc_out:
    while(True):
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i

"""
with open("spcnotes11.dat","rb") as spc_in:
    while(True):
        ii=pickle.load(spc_in)
        print(ii.nm,"   ",ii.qy)
        jj=pickle.load(spc_in)
        print(jj.nm,"   ",jj.qy)
```

```
jeera    20
paneer    10
mask     1000
Traceback (most recent call last):
  File "C:/Users/Som/covid202033.py", line 27, in <module>
    jj=pickle.load(spc_in)
EOFError: Ran out of input
```

This material is prepapared by Somnath PaulChoudhury

So finally we wrap it in the try except EOFError exception catching as shown below

```python
import pickle
class item:
    def __init__(self,name,qty):
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.nm,"    ",self.qy)
    """

with open("spcnotes11.dat","wb") as spc_out:
    while(True):
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i
    """

with open("spcnotes11.dat","rb") as spc_in:
    try:
        while(True):
            ii=pickle.load(spc_in)
            print(ii.nm,"   ",ii.qy)
            jj=pickle.load(spc_in)
            print(jj.nm,"   ",jj.qy)
    except EOFError:
        pass
```

We read the files and all the records correctly

```
jeera    20
paneer    10
mask    1000
>>>
```

This material is prepapared by Somnath PaulChoudhury

Lets add code as a data member in the class, the changed class and the output is shown below

```python
import pickle
import sys
class item:
    def __init__(self,code,name,qty):
        self.cd=code
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.cd,"   ",self.nm,"    ",self.qy)

with open("spcnotes12.dat","wb") as spc_out:
    while(True):
        icd=input("Enter code ")
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(icd,inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i

with open("spcnotes12.dat","rb") as spc_in:
    try:
        while(True):
            ii=pickle.load(spc_in)
            print(ii.cd,"   ",ii.nm,"   ",ii.qy)
    except EOFError:
        pass
```

So let us run it , notice that we are using another file spcnotes12.dat

Output of the code is shown below

```
Enter code i001
Enter item name paneer
Enter item qty 23
Wanna cont? y
Enter code i002
Enter item name jeera
Enter item qty 32
Wanna cont? y
Enter code i003
Enter item name mask
Enter item qty 1000
Wanna cont? n
i001    paneer   23
i002    jeera    32
i003    mask     1000
```

Lets us now add another record in the file spcnotes12.dat without erasing the previous records

We have to change the following statements as below

with open("spcnotes12.dat","ab") as spc_out:

from

with open("spcnotes12.dat","wb") as spc_out:

the parameter ab is append binary

```python
import pickle
import sys
class item:
    def __init__(self,code,name,qty):
        self.cd=code
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.cd,"   ",self.nm,"   ",self.qy)

with open("spcnotes12.dat","ab") as spc_out:
    while(True):
        icd=input("Enter code ")
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(icd,inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i

with open("spcnotes12.dat","rb") as spc_in:
    try:
        while(True):
            ii=pickle.load(spc_in)
            print(ii.cd,"   ",ii.nm,"   ",ii.qy)
    except EOFError:
        pass
```

The output is shown below

```
Enter code i004
Enter item name hand sanitizer
Enter item qty 45
Wanna cont? n
i001    paneer    23
i002    jeera    32
i003    mask    1000
i004    hand sanitizer    45
```

This material is prepapared by Somnath PaulChoudhury

Suppose we have added another record with code i006 and we want to insert a record before this to maintain the serial order of the code, we do it in this way. Before that we shall check if we can find a record on the basis of the code. So we do this changes

```python
import pickle
import sys
class item:
    def __init__(self,code,name,qty):
        self.cd=code
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.cd,"   ",self.nm,"   ",self.qy)
"""with open("spcnotes12.dat","ab") as spc_out:
    while(True):
        icd=input("Enter code ")
        inm=input("Enter item name ")
        iqty=int(input("Enter item qty "))
        i=item(icd,inm,iqty)
        pickle.dump(i,spc_out,pickle.HIGHEST_PROTOCOL)
        ans=input("Wanna cont? ")
        if(ans=='n' or ans=='N'):
            break
spc_out.close()
del i"""
with open("spcnotes12.dat","rb") as spc_in:
    c=input("Enter code ")
    try:
        while(True):
            ii=pickle.load(spc_in)
            if(c==ii.cd):
                print(ii.cd,"   ",ii.nm,"   ",ii.qy)
    except EOFError:
        pass
```

So we can find it also as shown below

```
Enter code i003
i003   mask   1000
>>> .
```

Since we have added aonther record as mentioned before the file spcnotes12.dat looks like this

```
i001    paneer    23
i002    jeera    32
i003    mask    1000
i004    hand sanitizer    45
i006    soya seeds    26
>>>
```

Now how to add another record after i004 and before i006? Say i005. Lets see this code

```python
import pickle
import sys
class item:
    def __init__(self,code,name,qty):
        self.cd=code
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.cd,"   ",self.nm,"    ",self.qy)

cc=input("Enter code to insert ")
nn=input("Enter name to insert ")
qq=int(input("Enter qty to insert "))
iii=item(cc,nn,qq)

with open("spcnotes13.dat","wb") as spc_out:
    with open("spcnotes12.dat","rb") as spc_in:
        c=input("Enter code before which we want to enter a new record ")
        try:
            while(True):
                ii=pickle.load(spc_in)
                if(c!=ii.cd):
                    pickle.dump(ii,spc_out,pickle.HIGHEST_PROTOCOL)
                elif(c==ii.cd):
                    pickle.dump(iii,spc_out,pickle.HIGHEST_PROTOCOL)
                    pickle.dump(ii,spc_out,pickle.HIGHEST_PROTOCOL)

        except EOFError:
            pass
```

This material is prepapared by Somnath PaulChoudhury

What we are doing is opened a new file spcnotes13.dat in wb mode then dump till the record i004 from spcnotes12.dat to spcnotes13.dat when it reads the record i006 it first dumps i005 and then i006 into the file. So we have done the job but in the process the file name is changed. We can now delete the file spcnotes12.dat and rename the file spcnotes13.dat to spcnotes12.dat. We can use two inbuilt functions rename() and remove()

```python
import pickle
import os
class item:
    def __init__(self,code,name,qty):
        self.cd=code
        self.nm=name
        self.qy=qty
    def showme(self):
        print(self.cd,"   ",self.nm,"    ",self.qy)
cc=input("Enter code to insert ")
nn=input("Enter name to insert ")
qq=int(input("Enter qty to insert "))
iii=item(cc,nn,qq)
with open("spcnotes13.dat","wb") as spc_out:
    with open("spcnotes12.dat","rb") as spc_in:
        c=input("Enter code before which we want to enter a new record ")
        try:
            while(True):
                ii=pickle.load(spc_in)
                if(c!=ii.cd):
                    pickle.dump(ii,spc_out,pickle.HIGHEST_PROTOCOL)
                elif(c==ii.cd):
                    pickle.dump(iii,spc_out,pickle.HIGHEST_PROTOCOL)
                    pickle.dump(ii,spc_out,pickle.HIGHEST_PROTOCOL)
        except EOFError:
            pass
spc_out.close()
spc_in.close()
os.remove("spcnotes12.dat")
os.rename("spcnotes13.dat","spcnotes12.dat")
with open("spcnotes12.dat","rb") as spc_in:
    try:
        while(True):
            ii=pickle.load(spc_in)
            print(ii.cd,"   ",ii.nm,"   ",ii.qy)
    except EOFError:
        pass
```

When we run the code we can see that its done. A new record has been inserted between two records.

This material is prepapared by Somnath PaulChoudhury

This is the output

Enter code to insert i005
Enter name to insert mouth wash
Enter qty to insert 67
Enter code before which we want to enter a new record i006
i001   paneer   23
i002   jeera   32
i003   mask   1000
i004   hand sanitizer   45
i005   mouth wash   67
i006   soya seeds   26
>>>

This material is prepapared by Somnath PaulChoudhury