

```
In [1]: outfile=open('myflatfile.txt','w')
        outfile
```

```
Out[1]: <_io.TextIOWrapper name='myflatfile.txt' mode='w' encoding='cp1252'>
```

```
In [2]: type(outfile)
```

```
Out[2]: _io.TextIOWrapper
```

```
In [3]: iLikeButter='' 'Slather me toast with a bargefull of butter, and crown it with
        a bucket of Pythonberry jam.' ''
        len(iLikeButter)
```

```
Out[3]: 91
```

```
In [4]: outfile.write(iLikeButter)
```

```
Out[4]: 91
```

```
In [5]: outfile.close()
```

```
In [6]: import os
        os.getcwd()
```

```
Out[6]: 'C:\\Users\\crmo\\Desktop\\Class\\Predict 420'
```

```
In [7]: infile=open('myflatfile.txt','r')
        doYouWantButter=infile.read()
        doYouWantButter
        type(doYouWantButter)
        type(_) # this underscore is used as an interpreter that stores the last expression value to the special variable called '_'
```

```
Out[7]: str
```

```
In [8]: kingsMenLouie=open('louielouie.txt','r')
```

```
In [9]: louielouie=kingsMenLouie.read()
```

```
In [10]: louielouie
```

```
Out[10]: "Louie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nFine little girl waits for me\nCatch a ship across the sea\nSail that ship about, all alone\nNever know if I make it home\nLouie Louie, oh no\nMe gotta go, oh no\nLouie Louie, oh baby\nI said we gotta go\nThree nights and days I sail the sea\nThink of girl, constantly\nOn that ship, I dream she's there\nI smell the rose in her hair.\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nOkay, let's give it to 'em, right now!\nSee Jamaica, the moon above\nIt won't be long, me see me love\nTake her in my arms again\nI tell her I'll never leave again\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nI said we gotta go now\nLet's take it on outta here now\nLet's go!!\n"
```

```
In [11]: louielist=louielouie.split()
```

In [12]: `louielist`

```
Out[12]: ['Louie',  
          'Louie,',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go',  
          'Aye-yi-yi-yi,',  
          'I',  
          'said',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'Me',  
          'gotta',  
          'go',  
          'Fine',  
          'little',  
          'girl',  
          'waits',  
          'for',  
          'me',  
          'Catch',  
          'a',  
          'ship',  
          'across',  
          'the',  
          'sea',  
          'Sail',  
          'that',  
          'ship',  
          'about,',  
          'all',  
          'alone',  
          'Never',  
          'know',  
          'if',  
          'I',  
          'make',  
          'it',  
          'home',  
          'Louie',  
          'Louie,',  
          'oh',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go,',  
          'oh',  
          'no',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'I',
```

'said',  
'we',  
'gotta',  
'go',  
'Three',  
'nights',  
'and',  
'days',  
'I',  
'sail',  
'the',  
'sea',  
'Think',  
'of',  
'girl,',  
'constantly',  
'On',  
'that',  
'ship,',  
'I',  
'dream',  
"she's",  
'there',  
'I',  
'smell',  
'the',  
'rose',  
'in',  
'her',  
'hair.',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'Okay,',  
"let's",  
'give',  
'it',  
'to',  
"'em,",  
'right',  
'now! ',  
'See',  
'Jamaica,',

'the',  
'moon',  
'above',  
'It',  
"won't",  
'be',  
'long,',  
'me',  
'see',  
'me',  
'love',  
'Take',  
'her',  
'in',  
'my',  
'arms',  
'again',  
'I',  
'tell',  
'her',  
"I'll",  
'never',  
'leave',  
'again',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'I',  
'said',  
'we',  
'gotta',  
'go',  
'now',  
"Let's",  
'take',  
'it',  
'on',  
'outta',  
'here',  
'now',  
"Let's",  
'go!!!']

```
In [13]: louie=""
```

```
In [14]: louie
```

```
Out[14]: ''
```

```
In [15]: while True:
          line=kingsMenLouie.readline()
          if not line:
              break
          louie+=line
```

```
In [16]: louie
```

```
Out[16]: ''
```

```
In [17]: louielouie
```

```
Out[17]: "Louie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nFine little girl waits for me\nCatch a ship across the sea\nSail that ship about, all alone\nNever know if I make it home\nLouie Louie, oh oh no\nMe gotta go, oh no\nLouie Louie, oh baby\nI said we gotta go\nThree nights and days I sail the sea\nThink of girl, constantly\nOn that ship, I dream she's there\nI smell the rose in her hair.\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nOkay, let's give it to 'em, right now!\nSee Jamaica, the moon above\nIt won't be long, me see me love\nTake her in my arms again\nI tell her I'll never leave again\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nI said we gotta go now\nLet's take it on outta here now\nLet's go!!\n"
```

```
In [18]: line
```

```
Out[18]: ''
```

```
In [19]: louie=louielouie
```

```
In [20]: louie #louie will now equal louielouie
```

```
Out[20]: "Louie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nFine little girl waits for me\nCatch a ship across the sea\nSail that ship about, all alone\nNever know if I make it home\nLouie Louie, oh oh no\nMe gotta go, oh no\nLouie Louie, oh baby\nI said we gotta go\nThree nights and days I sail the sea\nThink of girl, constantly\nOn that ship, I dream she's there\nI smell the rose in her hair.\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nOkay, let's give it to 'em, right now!\nSee Jamaica, the moon above\nIt won't be long, me see me love\nTake her in my arms again\nI tell her I'll never leave again\nLouie Louie, oh no\nMe gotta go\nAye-yi-yi-yi, I said\nLouie Louie, oh baby\nMe gotta go\nI said we gotta go now\nLet's take it on outta here now\nLet's go!!\n"
```

```
In [21]: with open('greaseitup.txt','wt') as butterOut:
          butterOut.write(iLikeButter)
```

In [22]: butterOut

Out[22]: <\_io.TextIOWrapper name='greaseitup.txt' mode='wt' encoding='cp1252'>

In [23]: **import pickle**

In [24]: pickle.dump(louielist,open('louielist.p','wb'))

In [25]: louieIsBack=pick.load(open('louielist.p','rb'))

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-25-d521a6883922> in <module>()  
----> 1 louieIsBack=pick.load(open('louielist.p','rb'))  
  
NameError: name 'pick' is not defined
```

In [26]: louielsBack=pickle.load(open('louielist.p','rb'))



In [27]: `louielsBack`

```
Out[27]: ['Louie',  
          'Louie,',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go',  
          'Aye-yi-yi-yi,',  
          'I',  
          'said',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'Me',  
          'gotta',  
          'go',  
          'Fine',  
          'little',  
          'girl',  
          'waits',  
          'for',  
          'me',  
          'Catch',  
          'a',  
          'ship',  
          'across',  
          'the',  
          'sea',  
          'Sail',  
          'that',  
          'ship',  
          'about,',  
          'all',  
          'alone',  
          'Never',  
          'know',  
          'if',  
          'I',  
          'make',  
          'it',  
          'home',  
          'Louie',  
          'Louie,',  
          'oh',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go,',  
          'oh',  
          'no',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'I',
```

'said',  
'we',  
'gotta',  
'go',  
'Three',  
'nights',  
'and',  
'days',  
'I',  
'sail',  
'the',  
'sea',  
'Think',  
'of',  
'girl,',  
'constantly',  
'On',  
'that',  
'ship,',  
'I',  
'dream',  
"she's",  
'there',  
'I',  
'smell',  
'the',  
'rose',  
'in',  
'her',  
'hair.',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'Okay,',  
"let's",  
'give',  
'it',  
'to',  
"'em,",  
'right',  
'now! ',  
'See',  
'Jamaica,',

'the',  
'moon',  
'above',  
'It',  
"won't",  
'be',  
'long,',  
'me',  
'see',  
'me',  
'love',  
'Take',  
'her',  
'in',  
'my',  
'arms',  
'again',  
'I',  
'tell',  
'her',  
"I'll",  
'never',  
'leave',  
'again',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'I',  
'said',  
'we',  
'gotta',  
'go',  
'now',  
"Let's",  
'take',  
'it',  
'on',  
'outta',  
'here',  
'now',  
"Let's",  
'go!!!']

In [28]: `louielist`

```
Out[28]: ['Louie',  
          'Louie,',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go',  
          'Aye-yi-yi-yi,',  
          'I',  
          'said',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'Me',  
          'gotta',  
          'go',  
          'Fine',  
          'little',  
          'girl',  
          'waits',  
          'for',  
          'me',  
          'Catch',  
          'a',  
          'ship',  
          'across',  
          'the',  
          'sea',  
          'Sail',  
          'that',  
          'ship',  
          'about,',  
          'all',  
          'alone',  
          'Never',  
          'know',  
          'if',  
          'I',  
          'make',  
          'it',  
          'home',  
          'Louie',  
          'Louie,',  
          'oh',  
          'oh',  
          'no',  
          'Me',  
          'gotta',  
          'go,',  
          'oh',  
          'no',  
          'Louie',  
          'Louie,',  
          'oh',  
          'baby',  
          'I',
```

'said',  
'we',  
'gotta',  
'go',  
'Three',  
'nights',  
'and',  
'days',  
'I',  
'sail',  
'the',  
'sea',  
'Think',  
'of',  
'girl,',  
'constantly',  
'On',  
'that',  
'ship,',  
'I',  
'dream',  
"she's",  
'there',  
'I',  
'smell',  
'the',  
'rose',  
'in',  
'her',  
'hair.',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'Okay,',  
"let's",  
'give',  
'it',  
'to',  
"'em,",  
'right',  
'now! ',  
'See',  
'Jamaica,',

'the',  
'moon',  
'above',  
'It',  
"won't",  
'be',  
'long,',  
'me',  
'see',  
'me',  
'love',  
'Take',  
'her',  
'in',  
'my',  
'arms',  
'again',  
'I',  
'tell',  
'her',  
"I'll",  
'never',  
'leave',  
'again',  
'Louie',  
'Louie,',  
'oh',  
'no',  
'Me',  
'gotta',  
'go',  
'Aye-yi-yi-yi,',  
'I',  
'said',  
'Louie',  
'Louie,',  
'oh',  
'baby',  
'Me',  
'gotta',  
'go',  
'I',  
'said',  
'we',  
'gotta',  
'go',  
'now',  
"Let's",  
'take',  
'it',  
'on',  
'outta',  
'here',  
'now',  
"Let's",  
'go!!!']



```
In [29]: louielist == louielsBack
```

```
Out[29]: True
```

```
In [30]: import pandas as pd
import numpy as np
from pandas import DataFrame, Series
```

```
In [31]: xyzcust10=pd.read_csv('xyzcust10.csv')
```

```
In [32]: xyzcust10.dtypes
```

```
Out[32]: ACCTNO          object
ZIP              int64
ZIP4            int64
LTD_SALES       float64
LTD_TRANSACTIONS int64
YTD_SALES_2009   float64
YTD_TRANSACTIONS int64
CHANNEL_ACQUISITION object
BUYER_STATUS     object
ZIP9_Supercode   int64
ZIP9_SUPERCODE   int64
dtype: object
```

```
In [33]: xyzcust10.head()
```

```
Out[33]:
```

	ACCTNO	ZIP	ZIP4	LTD_SALES	LTD_TRANSACTIONS	YTD_SALES_2009	YT
0	WDQQLLDQL	60084	5016	90.0	1	0.0	0
1	WQWAYHYLA	60091	1750	4227.0	9	1263.0	3
2	GSHAPLHAW	60067	900	420.0	3	129.0	1
3	PGGYDYWAD	60068	3838	6552.0	6	0.0	0
4	LWPSGPILLS	60090	3932	189.0	3	72.0	1

In [34]: `xyzcust10.tail()` # ZIP9\_Supercode and ZIP9\_SUPERCODE are the exact same data

Out[34]:

	ACCTNO	ZIP	ZIP4	LTD_SALES	LTD_TRANSACTIONS	YTD_SALES_200
30466	SYDQYLSWH	60098	3951	2736.0	9	96.0
30467	SAPDQHQLP	60098	9681	2412.0	8	108.0
30468	SASYAPDSY	60098	0	429.0	1	0.0
30469	PWQPDWHA	60098	7927	651.0	1	0.0
30470	SQQHDYHWH	60098	4160	4527.0	16	672.0

In [35]: `# Produce a list of Zip values in xyzcust10 along with their frequencies`  
`# How many records with missing ZIP in xyzcust10?`  
`# ZIP = 1`  
`# ZIP4 = 3638`  
`# How many active and inactive BUYER_STATUS in xyzcust10?`  
`# Active = 13465`  
`# Inactive = 9078`

In [36]: `xyzcust10.list()`

```
-----
AttributeError                                Traceback (most recent call last)
<ipython-input-36-9d76d838c125> in <module>()
----> 1 xyzcust10.list()

~\AppData\Local\Continuum\anaconda3\lib\site-packages\pandas\core\generic.py
in __getattr__(self, name)
    3612         if name in self._info_axis:
    3613             return self[name]
-> 3614         return object.__getattr__(self, name)
    3615
    3616     def __setattr__(self, name, value):

AttributeError: 'DataFrame' object has no attribute 'list'
```

In [37]: `cols=["ZIP","ZIP4","ZIP9_Supercode","ZIP9_SUPERCODE"]`

In [38]: `df=[]`

In [39]: `for i in cols:`  
`file=open("xyzcust10.csv","r")`  
`heading=file.read().split(", ")`  
`df.append(heading)`

In [41]: `cols`

Out[41]: `['ZIP', 'ZIP4', 'ZIP9_Supercode', 'ZIP9_SUPERCODE']`