```
In [2]:  import numpy as np
         from pandas import Series,DataFrame
         import pandas as pd
```

```
In [3]:  # Can open csv files as a dataframe
         dframe = pd.read_csv('lec25.csv')

         #Show
         dframe
```

Out[3]:

	q	r	s	t	apple
0	2	3	4	5	pear
1	a	s	d	f	rabbit
2	5	2	5	7	dog

```
In [4]:  # Can also use read_table with ',' as a delimiter
         dframe = pd.read_table('lec25.csv',sep=',')

         #Show
         dframe
```

Out[4]:

	q	r	s	t	apple
0	2	3	4	5	pear
1	a	s	d	f	rabbit
2	5	2	5	7	dog

```
In [5]:  dframe
```

Out[5]:

	q	r	s	t	apple
0	2	3	4	5	pear
1	a	s	d	f	rabbit
2	5	2	5	7	dog

```
In [6]:   #If we dont want the header to be the first row
          dframe = pd.read_csv('lec25.csv',header=None)

          #Show
          dframe
```

Out[6]:

	0	1	2	3	4
0	q	r	s	t	apple
1	2	3	4	5	pear
2	a	s	d	f	rabbit
3	5	2	5	7	dog

```
In [7]:   # We can also indicate a particular number of rows to be read
          pd.read_csv('lec25.csv',header=None,nrows=2)
```

Out[7]:

	0	1	2	3	4
0	q	r	s	t	apple
1	2	3	4	5	pear

```
In [8]:   # Let's see dframe again
          dframe
```

Out[8]:

	0	1	2	3	4
0	q	r	s	t	apple
1	2	3	4	5	pear
2	a	s	d	f	rabbit
3	5	2	5	7	dog

```
In [10]:  # Now let's see how we can write DataFrames out to text files
          dframe.to_csv('mytextdata_out.csv')

          #You'll see this file where you're ipython Notebooks are saved (Usually under my
```

```
In [14]:  #  We can also use other delimiters

          #we'll import sys to see the output
          import sys

          #Use sys.stdout to see the output directly and not save it
          dframe.to_csv(sys.stdout,sep='_')

          _0_1_2_3_4
          0_q_r_s_t_apple
          1_2_3_4_5_pear
          2_a_s_d_f_rabbit
          3_5_2_5_7_dog

In [15]:  # Just to make sure we understand the delimiter
          dframe.to_csv(sys.stdout,sep='?')

          ?0?1?2?3?4
          0?q?r?s?t?apple
          1?2?3?4?5?pear
          2?a?s?d?f?rabbit
          3?5?2?5?7?dog

In [17]:  #We can also choose to write only a specific subset of columns
          dframe.to_csv(sys.stdout,columns=[0,1,2])

          ,0,1,2
          0,q,r,s
          1,2,3,4
          2,a,s,d
          3,5,2,5

In [18]:  #You should also check out pythons built-in csv reader and writer for more info:
          # https://docs.python.org/2/library/csv.html

            File "<ipython-input-18-0b665ff54019>", line 2
              https://docs.python.org/2/library/csv.html (https://docs.python.org/2/libra
          ry/csv.html)
                  ^
          SyntaxError: invalid syntax


In [ ]:   #Next we'll learn about reading JSON data!
```