First is the set up load the Denpendcys and connect to the engine as well as inspector and table names



now run you get a out put of all the colum with in table dow. Listed

engine.execute('SELECT \* FROM dow LIMIT 5').fetchall()

now finish it by reflecting the DB in to a n orm class



now we can play with the dates.



**Important Note! Sqlite does not support a date column type, but SQLAlchemy will allow you to work with dates in the iso format.** [**sqlite dates**](http://docs.sqlalchemy.org/en/latest/dialects/sqlite.html)

**Quick Review of DateTime**



Query for the Dow closing price 1 week before 2011-04-08 using the datetime library



**Analysis**

Analyze the Average prices (open, high, low, close) for all stocks in the Month of May



Now plot in a bar chart using Matplotlib



Next use : Calculate the high-low peak-to-peak (PTP) values for `IBM` stock after `2011-05-31`.

# \* Note: high-low PTP is calculated using `high\_price` - `low\_price`

# \* Use a DateTime.date object in the query filter

# \* Use a list comprehension or numpy's ravel method to unpack the query's list of tuples into a list of PTP values.

# \* Use matplotlib to plot the PTP values as a boxplot



Below is a group by to get total of unique station with in a column

session.query(Measurements).group\_by(Measurements.station).count()

out put is : 9