MongoDb – How to Connect

There are several ways to access mongo

1) Connect to the Mongo Shell

- use PuTTY or ssh to connect to a genuse server. then at the prompt enter
  mongo smgo7db01.smu.edu:27017 -u <yourmongoid> -p <pwd> --authenticationDatabase "yourdb"
- do not include the angle brackets – replace with your mongoid, password and main database name
- use the mongo commands to perform CRUD operations

2) Connect with Python using the pymongo package

Since mongo sits behind the Lyle Firewall, I recommend **uploading your Python code to a genuse server** or **write it directly on the server.** The following code shows an example of a Python program uploaded to a genuse server. When run via genuse command line, it connects to the mongo server.

After uploading your Python code to genusexx, use **PuTTy** or **ssh** to open a command window on the genuse server and run the Python code.

```
import pymongo
import json

from pymongo import MongoClient

#create the python client – replace with your userid:password below
client = MongoClient('mongodb://coyle:mongoPassword@smgo7db01.smu.edu:27017/coyledb')

# Choose the database to use as 'db'
db = client.coyledb

# Create some documents for insertion
posts =[ {"name": "rollo", "topic": "computing", "post":"python rules" },
         {"name": "wally", "topic": "computing", "post":"c++ rules" },
         {"name": "marla", "topic": "physics", "post":"e=mc**2" }
       ]
for p in posts:
        db.blog.insert(p)

# load documents from a json file
lines = open('mydata.json').readlines()

for line in lines:
        mydict = json.loads(line)
        db.blog.insert(mydict)
```

```
#find() returns cursor - iterate to show collection blog
for p in db.blog.find():
        print(p)

print ("display without _id  --------  ")
for p in db.blog.find({}, {"_id": 0} ):
        print(p)

print ("success - bulk insert from file")
```

3) Use Jupyter Notebook after tunneling into a Genuse Server

To work with Mongo from Jupyter:

1. **Tunnel into a GENUSE server of your choice (higher numbers)**
2. **Launch Jupyter notebook –no-browser**
3. From a browser connect to localhost:8888 (or 8889 or..) and paste the key
4. When Jupyter opens, you are behind the firewall and can execute code as follows: