# MongoDB Practical

## Part 1: Using the Mongo Shell

a) From your command shell log into MongoDB using its Mongo shell (i.e., its command line tool):

(Note for users using their own laptops for this practical: first SSH into a gateway server in order to get access to the other servers - ssh ph-cplab.ph.ed.ac.uk using your guest account.)

mongo archerdb2.ph.ed.ac.uk

Once you are connected you should see the Mongo shell “>” prompt.

b) Create and use a database using your guest account username, e.g.

> use visit2\_testdb

c) Check the database you are using

> db

d) Create and insert documents into a collection called “customers”:

> doc1 = {name:"Larry Henderson", address:"1 Lygon St", DoB:"1970-06-06"}

> doc2 = {name:"Margaret Jackson", address:"54 James St", DoB:"1950-11-16"}

> doc3 = {name:"Tony Smith", address:"11 Crammond Rd", DoB:"1980-12-11"}

> db.customers.insert(doc1)

> db.customers.insert(doc2)

> db.customers.insert(doc3)

Note that the “customers” collection does not exist prior to inserting the JSON-like documents. MongoDB only creates the collection when we start adding the documents.

e) View all the data in the table:

> db.customers.find()

{ "\_id" : **ObjectId("542c0cd7368bd51bf34a1392")**, "name" : "Larry Henderson", "address" : "1 Lygon St", "DoB" : "1970-06-06" }

{ "\_id" : **ObjectId("542c0e3e368bd51bf34a1393")**, "name" : "Margaret Jackson", "address" : "54 James St", "DoB" : "1950-11-16" }

{ "\_id" : **ObjectId("542c0e41368bd51bf34a1394")**, "name" : "Tony Smith", "address" : "11 Crammond Rd", "DoB" : "1980-12-11" }

Note that each document in the collection now has a unique ObjectId. These unique IDs are automatically inserted by MongoDB.

f) Find all documents where address is “11 Crammond Rd”

> db.customers.find(**{address:"11 Crammond Rd"}**)

{ "\_id" : ObjectId("54c21d1bb5979b8b64654a0c"), "name" : "Tony Smith", "address" : "11 Crammond Rd", "DoB" : "1980-12-11" }

g) Lets update the address of “Tony Smith” (**note that you need to type the whole command in one line**).

> db.customers.update({name:"Tony Smith"},{$set: {address:"12 Ocean View"}})

> db.customers.find({name:"Tony Smith"})

{ "DoB" : "1980-12-11", "\_id" : ObjectId("54c21d1bb5979b8b64654a0c"), "address" : "12 Ocean View", "name" : "Tony Smith" }

h) Lets delete the document holding "Larry Henderson"

> db.customers.remove({name:"Larry Henderson"})

> db.customers.find({name:"Larry Henderson"})

## Part 2: Accessing the data via a Python application

Download the **mongodb\_query\_executor.py** from the web site and modify the following line of code to work with your database:

# Change the database to your one.

db = client.**charaka\_db**

Run and test that it works