**Week 1 – Lab Exercises**

1. Create a virtual eBay Client-Server network using MongoDB.
2. Write a MongoDB data for the student marks storing system.
3. **Create a virtual eBay Client-Server network using MongoDB**

The commands below assume you have created an N:\CT6013\data\db directory to store your data. Each statement needs to be run from the Windows command prompt.

**1.a** **Launch** The **Command Prompt** From The **Run** Window (press Win+R on your keyboard to **open** it). Then, type **cmd** or **cmd**.exe and press Enter or click/tap OK.

**1.b** In the **Command Prompt** window, type

"C:\Program Files\MongoDB\Server\3.0\bin\mongod" --dbpath N:CT6013\data\db

to start the **SERVER** process and press Enter. The **Command Prompt** window will show the following message



**Do not close this window.**

**1.c** **Launch** another **Command Prompt** window as shown in 1.a. Assume that this window will be used to run a **CLIENT** process for a user (buyer1).

**1.d** In the buyer1 **Command Prompt** window, type

"C:\Program Files\MongoDB\Server\3.0\bin\mongo"

to start the **CLIENT** process and press Enter. The **Command Prompt** window will show the following message 

And the **Command Prompt** window for the server will show the following message now



**1.e** **Launch** another **Command Prompt** window as shown in 1.a. Assume that this window will be used to run a **CLIENT** process for a user (buyer2).

**1.f** In the buyer2 **Command Prompt** window, type

"C:\Program Files\MongoDB\Server\3.0\bin\mongo"

to start the **CLIENT** process and press Enter. The **Command Prompt** window will show the following message 

And the **Command Prompt** window for the server will show the following message now



**1.g** **Launch** another **Command Prompt** window as shown in 1.a. Assume that this window will be used to run a **CLIENT** process for a user (seller1).

**1.h** In the seller1 **Command Prompt** window, type

"C:\Program Files\MongoDB\Server\3.0\bin\mongo"

to start the **CLIENT** process and press Enter. The **Command Prompt** window will show the following message 

And the **Command Prompt** window for the server will show the following message now



**1.i** **Launch** another **Command Prompt** window as shown in 1.a. Assume that this window will be used to run a **CLIENT** process for a user (seller2).

**1.j** In the seller2 **Command Prompt** window, type

"C:\Program Files\MongoDB\Server\3.0\bin\mongo"

to start the **CLIENT** process and press Enter. The **Command Prompt** window will show the following message 

And the **Command Prompt** window for the server will show the following message now



**1.k** In all buyers and sellers **Command Prompt** windows , type the following and press enter

use EBAY

All the buyers and sellers windows will show the following messages, which indicates all the clients are using EBAY database.



**1.l** In the seller1 window, type

item1 = { "Member" : "Seller1",

"Address" : "Gloucester",

"ItemName" : "Mobile",

"Description" : "Available"

}

db.EBAY.insert(item1)

And press Enter. The window will display



**1.m** In the seller2 window, type

item2 = { "Member" : "Seller2",

"Address" : "Cheltenham",

"ItemName" : "Laptop",

"Description" : "Available"

}

db.EBAY.insert(item2)

And press Enter. The window will display



**1.n** In the buyer1 window, type

db.EBAY.find()

And press Enter. The window will display



**1.o** In the buyer1 window, type

db.EBAY.update(

{ "Member" : "Seller2"},

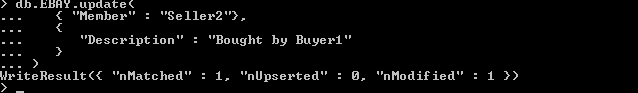
{

"Description" : "Bought by Buyer1"

}

)

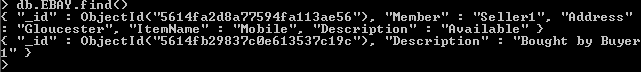
And press Enter. The window will display



**1.p** In the buyer2 window, type

db.EBAY.find()

And press Enter. The window will display



**1.q** What is the structure of the data created in the above exercise (“Structured” or “Semi-Structured”)? And why? Write your answer in the box below

Semi-structured

The collection contains documents that have a different column structures.

1. **Write a MongoDB data for the student marks storing system in the box below**

use StudentAssignmentMarks

Student1 = {

"id" : "1",

"contactDetails"{

"firstName" : "Steve",

"lastName" : "Jobs",

"email" : "steve.jobs@apple.com",

"address1" : "1 Apple Way",

"address2" : "Calfornia",

"postCode" : "90210"

},

"Modules"[

{

"moduleID" : "CT6013",

"moduleDetails"{

"moduleTitle" : "Advanced Database Systems",

"moduleDesc" : "Doing fancy stuff with databases"

},

"assignments"[

{

"assignmentID" : "Ass0001",

"assignmentTitle" : "Make a MongoDB DB",

"assignmentDesc" : "Make a Mongo DB to track student marks",

"deadline" : "2016-01-08",

"mark" : "78%"

},

{

"assignmentID" : "Ass0002",

"assignmentTitle" : "Make a Multidimensional DB",

"assignmentDesc" : "Make a Multidimensional DB for another reason",

"deadline" : "2016-01-08",

"mark" : "64%"

}

]

"grade" : "72%"

}

]

}

db.StudentAssignmentMarks.insert(Student1)

Once you have completed these exercises, please send this document by email [aalam@glos.ac.uk](mailto:aalam@glos.ac.uk)