Data Centric Web Applications

Lab 4 MongoDB I

1. Create a mongodb database called `usersdb`.

2. Create a collection called `users` which has documents with the following attributes:

_id	fname	surname	age	email	carReg
100	John	Smith	33	jsmith@gmail.com	131-G-101
101	Sean	Murphy	21	seanmurph@yahoo.com	04-WH-235
102	Aine	Browne	23	abrowne@gmail.com	
103	Alan	Murphy	24	murpha@hotmail.com	07-RN-9988
104	Sarah	Doyle	23	sarah@gmail.com	142-G-2343
105	Bill	Mulligan	19	billy123@gmail.com	
106	Shane	Kelly	24	sk998@yahoo.com	
107	Will	Doyle	19	doyler123@gmail.com	10-G-2353

3. Give the command to find all documents in the `users` collection.

4. Give the command to find all documents in the `users` collection where the `age` is 19.

5. Give the command to find all documents in the `users` collection where the `age` is greater than 19.

6. Give the command to find all documents in the `users` collection where the `age` is greater than 19 and the user has a car.

7. Give the command to find all documents in the `users` collection where `_id` is greater than 104 and `age` is greater than 20.

8. Give the command to find the first document in the `users` collection where the user has a car.

9. User 106 - Shane has bought a car with reg 12-G-1234. The following command was run to update the user's document:

```
db.users.save({_id:106, carReg:"12-G-1234"})
```

What does the document look like now and why?

10. User 102 - Aine has bought a car with reg 10-G-9876. The following command was run to update the user's document:

```
db.users.update({_id:102}, {carReg:"10-G-9876"})
```

What does the document look like now and why?

11. User 105 – Bill's document is as follows:

```
{ "_id" : 105, "fname" : "Bill", "surname" : "Mulligan", "age"
: 19, "email" : "billy123@gmail.com" }
```

Bill has bought a car with reg 161-MO-4. Give the command so that Bill's document now looks as follows:

```
{ "_id" : 105, "fname" : "Bill", "surname" : "Mulligan", "age"
: 19, "email" : "billy123@gmail.com", "carReg" : "161-MO-4" }
```

12. User 106's document now looks as follows:

```
{ "_id" : 106, "carReg" : "12-G-1234" }
```

Give the command to add the original fields:

_id	fname	surname	Age	email
106	Shane	Kelly	24	sk998@yahoo.com

back to the document in a single command so that the document now looks as follows:

_id	fname	surname	Age	email	carReg
106	Shane	Kelly	24	sk998@yahoo.com	12-G-1234

13. Give the mongodb command to add 1 to each user's age.

14. Add a new attribute *sex*, to each document as follows:

_id	Sex
100	M
101	M
103	M
104	F
105	M
106	M
107	M

15. Add a new attribute *title* with the value *Mr.*, to each document where the *sex* is M, and the age is greater than 20:

16. Users 101 – Sean, 103 – Alan and 107 – Will have sold their cars, update the collection to remove the *carReg* attribute from these documents.

17. Give the mongodb command to list/show **only** the *fname*, *surname*, *age* and *sex* attributes of documents where the _id is between 101 and 107 inclusive.

18. Give the mongodb command to renme the *fname* attribute to *Name*.