MongoDB – LAB 1

1.

a) Create a database named pets in MongoDB Shell.

student> use pets

switched to db pets

```
student> use pets
switched to db pets
```

b) Create a collection named mammals.

pets> db.createCollection("mammals")

{ ok: 1 }

```
pets> db.createCollection("mammals")
{ ok: 1 }
```

c) Insert some documents to the mammals collection with fields petid, name and species. (Using insertOne())

mammals>db.mammals.insertOne({"petid":1,"name":"smokey","species":"dog"})

{

  acknowledged: true,

  insertedId: ObjectId("6516ba87d0d4313ebc6da8a7")

}

mammals> db.mammals.insertOne({"petid":2,"name":"meow","species":"cat"})

{

  acknowledged: true,

  insertedId: ObjectId("6516bab4d0d4313ebc6da8a8")

}

mammals> db.mammals.insertOne({"petid":3,"name":"blacky","species":"dog"})

{

  acknowledged: true,

  insertedId: ObjectId("6516bacbd0d4313ebc6da8a9")

}

```
pets> use mammals
switched to db mammals
mammals> db.mammals.insertOne({"petid":1,"name":"smokey","species":"dog"})
{
  acknowledged: true,
  insertedId: ObjectId("6516ba87d0d4313ebc6da8a7")
}
mammals> db.mammals.insertOne({"petid":2,"name":"meow","species":"cat"})
{
  acknowledged: true,
  insertedId: ObjectId("6516bab4d0d4313ebc6da8a8")
}
mammals> db.mammals.insertOne({"petid":3,"name":"blacky","species":"dog"})
{
  acknowledged: true,
  insertedId: ObjectId("6516bacbd0d4313ebc6da8a9")
}
```

d) Find all the mammals.

```
mammals> db.mammals.find()
[
  {
    _id: ObjectId("6516ba87d0d4313ebc6da8a7"),
    petid: 1,
    name: 'smokey',
    species: 'dog'
  },
  {
    _id: ObjectId("6516bab4d0d4313ebc6da8a8"),
    petid: 2,
    name: 'meow',
    species: 'cat'
  },
  {
    _id: ObjectId("6516bacbd0d4313ebc6da8a9"),
    petid: 3,
    name: 'blacky',
    species: 'dog'
  }
]
```

e) Find all the mammals with "dog" as their species.

mammals> db.mammals.find({"species":"dog"})
[
  {
    _id: ObjectId("6516ba87d0d4313ebc6da8a7"),
    petid: 1,
    name: 'smokey',
    species: 'dog'
  },
  {
    _id: ObjectId("6516bacbd0d4313ebc6da8a9"),
    petid: 3,
    name: 'blacky',
    species: 'dog'
  }

```
mammals> db.mammals.find({"species":"dog"})
[
  {
    _id: ObjectId("6516ba87d0d4313ebc6da8a7"),
    petid: 1,
    name: 'smokey',
    species: 'dog'
  },
  {
    _id: ObjectId("6516bacbd0d4313ebc6da8a9"),
    petid: 3,
    name: 'blacky',
    species: 'dog'
  }
]
```

f) Create another capped collection named owner with maximum 10 documents.

pets> db.createCollection("owner",{capped : true, size : 5242880, max :10})
{ ok: 1 }

```
pets> db.createCollection("owner",{capped : true, size : 5242880, max :10})
{ ok: 1 }
```

g) Insert some documents to the owner collection with fields ownerid, name, city, state and contact where contact is an embedded document containing fields email and mobile. (Using insertMany()).

pets>db.owner.insertMany([{"ownerid":1,"name":"shubham","city":"jabalpur","state":"M.P.","contact":{"email":"shw@gmail.com","mobile":98564221}},{"ownerid":2,"name":"nikita","city":"jabalpur","state":"M.P.","contact":{"email":"niks@gmail.com","mobile":982417511}},{"ownwerid":3,"name":"Sheetal","city":"Mumbai","state":"Maharasthra","contact":{"email":"sheetal@gmail.com","mobile":9865432148}}])

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("6516ab407bb7392d4a896f3e"),
    '1': ObjectId("6516ab407bb7392d4a896f3f"),
    '2': ObjectId("6516ab407bb7392d4a896f40")
  }
}
```


h) Find all owners residing in a particular city and state.

pets> db.owner.find({"city":"Mumbai","state":"Maharasthra"})

```
[
  {
    _id: ObjectId("6516ab407bb7392d4a896f40"),
    ownwerid: 3,
    name: 'Sheetal',
    city: 'Mumbai',
    state: 'Maharasthra',
    contact: { email: 'sheetal@gmail.com', mobile: 9865432148 }
  }
]
```

i) Find a particular owner whose mobile is given.

```
pets> db.owner.find({"contact.mobile":98564221})
[
  {
    _id: ObjectId("6516ab407bb7392d4a896f3e"),
    ownerid: 1,
    name: 'shubham',
    city: 'jabalpur',
    state: 'M.P.',
    contact: { email: 'shw@gmail.com', mobile: 98564221 }
  }
]
```

```
pets> db.owner.find({"contact.mobile":98564221})
[
   {
     _id: ObjectId("6516ab407bb7392d4a896f3e"),
     ownerid: 1,
     name: 'shubham',
     city: 'jabalpur',
     state: 'M.P.',
     contact: { email: 'shw@gmail.com', mobile: 98564221 }
   }
]
```

j) Find owners whose email or mobile is given.

```
pets>db.owner.find({"$or":[{"contact.mobile":98564221},{"contact.email":"niks@gmail.com"}]})
```

```
pets> db.owner.find({"$or":[{"contact.mobile":98564221},{"contact.email":"niks@gmail.com"}]})
[
  {
    _id: ObjectId("6516ab407bb7392d4a896f3e"),
    ownerid: 1,
    name: 'shubham',
    city: 'jabalpur',
    state: 'M.P.',
    contact: { email: 'shw@gmail.com', mobile: 98564221 }
  },
  {
    _id: ObjectId("6516ab407bb7392d4a896f3f"),
    ownerid: 2,
    name: 'nikita',
    city: 'jabalpur',
    state: 'M.P.',
    contact: { email: 'niks@gmail.com', mobile: 982417511 }
  }
]
```