

Q1. a) Create a database named pets in MongoDB Shell.

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

b) Create a collection named mammals.

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

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

```
pets> db.mammals.insertOne({"petid" :1,"name":"elephant","species":"asikan"})
{
  acknowledged: true,
  insertedId: ObjectId("6516a550b7f742f054ce587d")
}
```

```
pets> db.mammals.insertOne({"petid" :2,"name":"cat","species":"wild"})
{
  acknowledged: true,
  insertedId: ObjectId("6516a5a7b7f742f054ce587e")
}
```

d) Find all the mammals.

```
pets> db.mammals.find({})
[
  {
    _id: ObjectId("6516a550b7f742f054ce587d"),
    petid: 1,
    name: 'elephant',
    species: 'asikan'
  },
  {
    _id: ObjectId("6516a5a7b7f742f054ce587e"),
    petid: 2,
    name: 'cat',
    species: 'wild'
  }
]
```

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

```
pets> db.mammals.find({"species":"dog"})
[
  {
    _id: ObjectId("6516a891b7f742f054ce5881"),
    petid: 2,
    name: 'labra',
    species: 'dog'
  },
  {
    _id: ObjectId("6516a8a6b7f742f054ce5882"),
    petid: 2,
    name: 'golden ret',
    species: 'dog'
  }
]
```

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

```
pets> db.createCollection("owner", {capped:true, size:5604683, 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":111,"name":"jack","city":"New York","state":"NY",
"contact":{"email":"jack@g.com","mobile":"9560325635"}},{ "ownerid":222,"name":"john","c
ity":"mumbai","state":"maha","contact":{"email":"jo@mn.com","mobile":"625914356"}}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("6516aeb3b7f742f054ce5883"),
    '1': ObjectId("6516aeb3b7f742f054ce5884")
  }
}
```

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

```
pets> db.owner.find({"city":"mumbai","state":"maha"})
[
  {
    _id: ObjectId("6516aeb3b7f742f054ce5884"),
    ownerid: 222,
    name: 'john',
    city: 'mumbai',
    state: 'maha',
    contact: { email: 'jo@mn.com', mobile: '625914356' }
  }
]
```

i).Find a particular owner whose mobile is given.

```
pets> db.owner.find({"contact.mobile":"9560325635"})
[
  {
    _id: ObjectId("6516aeb3b7f742f054ce5883"),
    ownerid: 111,
    name: 'jack',
    city: 'New York',
    state: 'NY',
    contact: { email: 'jack@g.com', mobile: '9560325635' }
  }
]
```

j) Find owners whose email or mobile is given.

```
pets> db.owner.find({"contact.email":"jack@g.com","contact.mobile":"9560325635"})
[
  {
    _id: ObjectId("6516aeb3b7f742f054ce5883"),
    ownerid: 111,
    name: 'jack',
    city: 'New York',
    state: 'NY',
    contact: { email: 'jack@g.com', mobile: '9560325635' }
  }
]
```