MongoDB Lab1

- Create a free cluster on Atlas or install
- Install Mongo Shell.
- Load a sample dataset.
- Explore databases and collections.
- Execute find queries using query operators ($ne, $eq, $gt, $regex, etc) and projection.
- Insert arrays and arrays of nested documents.
- Execute find queries on arrays and arrays of nested documents using $elemMatch, $all and $size.

Ex1,2,3,4)

```
}
islam> db.islam.find()
[
  {
    _id: ObjectId("63fb4e65cd24d39c73869be4"),
    id: 1,
    name: 'Leanne Graham',
    username: 'Bret',
    email: 'Sincere@april.biz',
    address: {
      street: 'Kulas Light',
      suite: 'Apt. 556',
      city: 'Gwenborough',
      zipcode: '92998-3874',
      geo: { lat: '-37.3159', lng: '81.1496' }
    },
    phone: '1-770-736-8031 x56442',
    website: 'hildegard.org',
    company: {
      name: 'Romaguera-Crona',
      catchPhrase: 'Multi-layered client-server neural-net',
      bs: 'harness real-time e-markets'
    }
  },
  {
    _id: ObjectId("63fb4e65cd24d39c73869be5"),
    id: 2,
    name: 'Ervin Howell',
    username: 'Antonette',
    email: 'Shanna@melissa.tv',
    address: {
      street: 'Victor Plains',
      suite: 'Suite 879',
      city: 'Wisokyburgh',
      zipcode: '90566-7771',
      geo: { lat: '-43.9509', lng: '-34.4618' }
    },
    phone: '010-692-6593 x09125',
    website: 'anastasia.net',
    company: {
      name: 'Deckow-Crist',
      catchPhrase: 'Proactive didactic contingency',
      bs: 'synergize scalable supply-chains'
```

EX5)

```
islam> db.islam.find(
...
... {
...     $or : [
...         {name: {$eq:"Glenna Reichert"}}
...     ]
... }
... )
[
  {
    _id: ObjectId("63fb4e65cd24d39c73869bec"),
    id: 9,
    name: 'Glenna Reichert',
    username: 'Delphine',
    email: 'Chaim_McDermott@dana.io',
    address: {
      street: 'Dayna Park',
      suite: 'Suite 449',
      city: 'Bartholomebury',
      zipcode: '76495-3109',
      geo: { lat: '24.6463', lng: '-168.8889' }
    },
    phone: '(775)976-6794 x41206',
    website: 'conrad.com',
    company: {
      name: 'Yost and Sons',
      catchPhrase: 'Switchable contextually-based project',
      bs: 'aggregate real-time technologies'
    }
  }
]
islam>


      geo: { lat: '24.6463', lng: '-168.8889' }
    },
    phone: '(775)976-6794 x41206',
    website: 'conrad.com',
    company: {
      name: 'Yost and Sons',
      catchPhrase: 'Switchable contextually-based project',
      bs: 'aggregate real-time technologies'
    }
  }
]
islam>
```

```
islam> db.islam.find({email : {$regex:".io"}}, {username:0, address:0})
[
  {
    _id: ObjectId("63fb4e65cd24d39c73869be8"),
    id: 5,
    name: 'Chelsey Dietrich',
    email: 'Lucio_Hettinger@annie.ca',
    phone: '(254)954-1289',
    website: 'demarco.info',
    company: {
      name: 'Keebler LLC',
      catchPhrase: 'User-centric fault-tolerant solution',
      bs: 'revolutionize end-to-end systems'
    }
  },
  {
    _id: ObjectId("63fb4e65cd24d39c73869bec"),
    id: 9,
    name: 'Glenna Reichert',
    email: 'Chaim_McDermott@dana.io',
    phone: '(775)976-6794 x41206',
    website: 'conrad.com',
    company: {
      name: 'Yost and Sons',
      catchPhrase: 'Switchable contextually-based project',
      bs: 'aggregate real-time technologies'
    }
  }
]
islam>
```

```
islam> db.islam.find(
...     {
...         id: {$gt:6}
...     }
... )
[
  {
    _id: ObjectId("63fb4e65cd24d39c73869bea"),
    id: 7,
    name: 'Kurtis Weissnat',
    username: 'Elwyn.Skiles',
    email: 'Telly.Hoeger@billy.biz',
    address: {
      street: 'Rex Trail',
      suite: 'Suite 280',
      city: 'Howemouth',
      zipcode: '58804-1099',
      geo: { lat: '24.8918', lng: '21.8984' }
    },
    phone: '210.067.6132',
    website: 'elvis.io',
    company: {
      name: 'Johns Group',
      catchPhrase: 'Configurable multimedia task-force',
      bs: 'generate enterprise e-tailers'
    }
  },
  {
```

EX6)

```
]
islam> db.islam.insertMany( [ [1, 2, 3, 4, 5], [ { "_id": 1, "name": "Wag", "type": "Dog" }, { "_id": 2,
"name": "Bark", "type": "Dog" }, { "_id": 3, "name": "Meow", "type": "Cat" }]])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("63fc976b1d44f2e339034779"),
    '1': ObjectId("63fc976b1d44f2e33903477a")
  }
}
islam> db.islam.find()
```

EX7)

a.

```
islam> db.survey.find({ results: { $elemMatch: { product: 'xyz', score: { $gte: 8 } } } })
[
  {
    _id: 3,
    results: [ { product: 'abc', score: 7 }, { product: 'xyz', score: 8 } ]
  }
]
islam>
```

b.

```
islam> db.islam.find({
...    tags: {
...      $all: ["appliance", "school"]
...    }
... })
[
  {
    _id: ObjectId("5234cc89687ea597eabee675"),
    code: 'xyz',
    tags: [ 'school', 'book', 'bag', 'headphone', 'appliance' ],
    qty: [
      { size: 'S', num: 10, color: 'blue' },
      { size: 'M', num: 45, color: 'blue' },
      { size: 'L', num: 100, color: 'green' }
    ]
  },
  {
    _id: ObjectId("5234cc8a687ea597eabee676"),
    code: 'abc',
    tags: [ 'appliance', 'school', 'book' ],
    qty: [
      { size: '6', num: 100, color: 'green' },
      { size: '6', num: 50, color: 'blue' },
      { size: '8', num: 100, color: 'brown' }
    ]
  }
]
islam>
```

C.

```
]
islam> db.islam.find({tags: {$size:2}})
[
  {
    _id: ObjectId("52350353b2eff1353b349de9"),
    code: 'ijk',
    tags: [ 'electronics', 'school' ],
    qty: [ { size: 'M', num: 100, color: 'green' } ]
  }
]
islam>
```