MongoDB Queries

Creating database and movies collection

```
test> use moviesDB;
switched to db moviesDB
moviesDB> db.createCollection("movies")
{ ok: 1 }
moviesDB> show collections
movies
```

Inserting data into data base

```
moviesDB> db.movies.insertMany([{ "title": "Fight Club", "writer": "Chuck Palahniuk
", "year": 1999, "actors": ["Brad Pitt", "Edward Norton"] }, { "title": "Pulp Ficti
on", "writer": "Quentin Tarantino", "year": 1994, "actors": ["John Travolta", "Uma
Thurman "] }, { "title": "Inglorious Basterds", "writer": "Quentin Tarantino", "yea
r": 2009, "actors": ["Brad Pitt", "Diane Kruger ", "Eli Roth "] }, { "title": "The
Hobbit: An Unexpected Journey", "writer": "J.R.R. Tolkein ", "year": 2012, "franchi
se ": "The Hobbit" }, { "title": "The Hobbit: The Desolation of Smaug", "writer": "
J.R.R. Tolkein ", "year": 2013, "franchise ": "The Hobbit" }, { "title": "The Hobbi
t: The Battle of the Five Armies", "writer": "J.R.R. Tolkein ", "year": 2012, "fran
chise ": "The Hobbit", "synopsis": "Bilbo and Company are forced to engage in a war
 against an array of combatants and keep the Lonely Mountain from falling into the
hands of a rising darkness." }])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("63886f99add0b70b5e52038c"),
    '1': ObjectId("63886f99add0b70b5e52038d"),
    '2': ObjectId("63886f99add0b70b5e52038e"),
    '3': ObjectId("63886f99add0b70b5e52038f"),
    '4': ObjectId("63886f99add0b70b5e520390"),
    '5': ObjectId("63886f99add0b70b5e520391")
  }
}
```

1.get all documents

db.movies.find()

```
moviesDB> db.movies.find()
[
  {
    _id: ObjectId("63886f99add0b70b5e52038c"),
    title: 'Fight Club',
    writer: 'Chuck Palahniuk',
    year: 1999,
    actors: [ 'Brad Pitt', 'Edward Norton' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038e"),
    title: 'Inglorious Basterds',
    writer: 'Quentin Tarantino',
    year: 2009,
    actors: [ 'Brad Pitt', 'Diane Kruger ', 'Eli Roth ' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038f"),
    title: 'The Hobbit: An Unexpected Journey',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    'franchise ': 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520390"),
    title: 'The Hobbit: The Desolation of Smaug',
    writer: 'J.R.R. Tolkein ',
    year: 2013,
    'franchise ': 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520391"),
    title: 'The Hobbit: The Battle of the Five Armies',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    'franchise ': 'The Hobbit',
    synopsis: 'Bilbo and Company are forced to engage in a war against
  }
]
```

2. get all documents with `writer` set to "Quentin Tarantino"

db.movies.find({writer:"Quentin Tarantino"})

```
moviesDB> db.movies.find({writer:"Quentin Tarantino"})
[
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038e"),
    title: 'Inglorious Basterds',
    writer: 'Quentin Tarantino',
    year: 2009,
    actors: [ 'Brad Pitt', 'Diane Kruger ', 'Eli Roth ' ]
  }
]
```

3. get all documents where `actors` include "Brad Pitt"

```
db.movies.find({actors:{$in:["Brad Pitt"]}})
```

```
moviesDB> db.movies.find({actors:{$in:["Brad Pitt"]}})
[
  {
    _id: ObjectId("63886f99add0b70b5e52038c"),
    title: 'Fight Club',
    writer: 'Chuck Palahniuk',
    year: 1999,
    actors: [ 'Brad Pitt', 'Edward Norton' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038e"),
    title: 'Inglorious Basterds',
    writer: 'Quentin Tarantino',
    year: 2009,
    actors: [ 'Brad Pitt', 'Diane Kruger ', 'Eli Roth ' ]
  }
]
```

4. get all documents with `franchise` set to "The Hobbit"

```
db.movies.find({"franchise ":"The Hobbit"})
```

```
moviesDB> db.movies.find({franchise:"The Hobbit"})
[
  {
    _id: ObjectId("63886f99add0b70b5e520390"),
    title: 'The Hobbit: The Desolation of Smaug',
    writer: 'J.R.R. Tolkein ',
    year: 2013,
    franchise: 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520391"),
    title: 'The Hobbit: The Battle of the Five Armies',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    synopsis: 'Bilbo and Company are forced to engage in a war against an array of
combatants and keep the Lonely Mountain from falling into the hands of a rising dar
kness.',
    franchise: 'The Hobbit'
  }
]
```

5. get all movies released in the 90s

db.movies.find({year:{$gte:1990,$lt:2000}})

```
moviesDB> db.movies.find({year:{$gte:1990,$lt:2000}})
[
  {
    _id: ObjectId("63886f99add0b70b5e52038c"),
    title: 'Fight Club',
    writer: 'Chuck Palahniuk',
    year: 1999,
    actors: [ 'Brad Pitt', 'Edward Norton' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ' ]
  }
]
```

6.get all movies released before the year 2000 or after 2010

db.movies.find({$or:[{year:{$lt:2000}},{year:{$gt:2010}}]})

```
moviesDB> db.movies.find({$or:[{year:{$lt:2000}},{year:{$gt:2010}}]})
[
  {
    _id: ObjectId("63886f99add0b70b5e52038c"),
    title: 'Fight Club',
    writer: 'Chuck Palahniuk',
    year: 1999,
    actors: [ 'Brad Pitt', 'Edward Norton' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038f"),
    title: 'The Hobbit: An Unexpected Journey',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    'franchise ': 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520390"),
    title: 'The Hobbit: The Desolation of Smaug',
    writer: 'J.R.R. Tolkein ',
    year: 2013,
    franchise: 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520391"),
    title: 'The Hobbit: The Battle of the Five Armies',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    synopsis: 'Bilbo and Company are forced to engage in a war against
    franchise: 'The Hobbit'
  }
]
```

7. count the number of writer from the movie collection

db.movies.distinct("writer").length

```
moviesDB> db.movies.distinct("writer").length
3
```

8. update an actor named "Samuel L. Jackson" to the movie "Pulp Fiction"

db.movies.update({title:"Pulp Fiction"},{$push:{"actors":"Samuel L. Jackson"}})

```
moviesDB> db.movies.update({title:"Pulp Fiction"},{$push:{"actors":"Samuel L. Jackson"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
moviesDB> db.movies.find({title:"Pulp Fiction"})
[
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ', 'Samuel L. Jackson' ]
  }
]
```

9. find all movies that have a synopsis that contains the word "Gandalf"

db.movies.find({synopsis:{$in : [/Gandalf/]}})

```
moviesDB> db.movies.find({synopsis:{$in : [/Gandalf/]}})

moviesDB> db.movies.find({synopsis:{$in : [/Lonely/]}})
[
  {
    _id: ObjectId("63886f99add0b70b5e520391"),
    title: 'The Hobbit: The Battle of the Five Armies',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    synopsis: 'Bilbo and Company are forced to engage in a war against an array of combatants and keep the Lonely Mountain fro
he hands of a rising darkness.',
    franchise: 'The Hobbit'
  }
]
```

10. display the movie collection based on year in descending order.

db.movies.find().sort({year:-1})

```
moviesDB> db.movies.find().sort({year:-1})
[
  {
    _id: ObjectId("63886f99add0b70b5e520390"),
    title: 'The Hobbit: The Desolation of Smaug',
    writer: 'J.R.R. Tolkein ',
    year: 2013,
    franchise: 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038f"),
    title: 'The Hobbit: An Unexpected Journey',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    'franchise ': 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e520391"),
    title: 'The Hobbit: The Battle of the Five Armies',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    synopsis: 'Bilbo and Company are forced to engage in a w
    franchise: 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038e"),
    title: 'Inglorious Basterds',
    writer: 'Quentin Tarantino',
    year: 2009,
    actors: [ 'Brad Pitt', 'Diane Kruger ', 'Eli Roth ' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038c"),
    title: 'Fight Club',
    writer: 'Chuck Palahniuk',
    year: 1999,
    actors: [ 'Brad Pitt', 'Edward Norton' ]
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038d"),
    title: 'Pulp Fiction',
    writer: 'Quentin Tarantino',
    year: 1994,
    actors: [ 'John Travolta', 'Uma Thurman ' ]
  }
]
```

11. Display last two recent movie .

db.movies.find().sort({year:-1}).limit(2)

```
moviesDB> db.movies.find().sort({year:-1}).limit(2)
[
  {
    _id: ObjectId("63886f99add0b70b5e520390"),
    title: 'The Hobbit: The Desolation of Smaug',
    writer: 'J.R.R. Tolkein ',
    year: 2013,
    franchise: 'The Hobbit'
  },
  {
    _id: ObjectId("63886f99add0b70b5e52038f"),
    title: 'The Hobbit: An Unexpected Journey',
    writer: 'J.R.R. Tolkein ',
    year: 2012,
    'franchise ': 'The Hobbit'
  }
]
```