

Insert the following documents into a movies collection.

```
db.movies.insertMany([
  {
    title:"Fight Club",
    writer:"Chuck Plahniuk",
    year:1999,
    actors:["Brad Pitt","Edward Norton"]
  },
  {
    title:"Pulp Fiction",
    writer:"Quentin Tarantino",
    year:1994,
    actors:["BJohn Travolta","Uma Thurman"]
  },
  {
    title:"Inglorious Basterds",
    writer:"Quentin Tarantino",
    year:2009,
    actors:["Brad Pitt","Diane Kruger","Eli Roth"]
  },
  {
    title:"The Hobbit: An Unexpected Journey",
    writer:"J.R.R. Tolkein",
    year:2012,
    actors:["Brad Pitt","Diane Kruger","Eli Roth"]
  },
  {
    title : "The Hobbit: The Desolation of Smaug",
    writer : "J.R.R. Tolkein",
    year : 2013,
    franchise : "The Hobbit"
  },
  {
    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 an array of
    combatants and keep the Lonely Mountain from falling into the hands of a rising darkness.
  },
  {
    title : "Pee Wee Herman's Big Adventure "
```

```

    },
    {
      title : "Avatar"
    }
  ]
)

```

1. Get all documents

```

> db.movies.find().pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37795"),
  "title" : "Fight Club",
  "writer" : "Chuck Plahniuk",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37796"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman",
    "Samuel L. Jackson"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37797"),
  "title" : "Inglorious Basterds",
  "writer" : "Quentin Tarantino",
  "year" : 2009,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ]
}

```

2. Get all documents with writer set to "Quentin Tarantino"

```
> db.movies.find({writer:{ $eq:"Quentin Tarantino"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37796"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman",
    "Samuel L. Jackson"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37797"),
  "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"]}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37795"),
  "title" : "Fight Club",
  "writer" : "Chuck Plahniuk",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37797"),
  "title" : "Inglorious Basterds",
  "writer" : "Quentin Tarantino",
  "year" : 2009,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
```

4. Get all documents with franchise set to "The Hobbit"

```
> db.movies.find({franchise:{$eq:"The Hobbit"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779a"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "franchise" : "The Hobbit"
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779b"),
  "title" : "The Hobbit: The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit"
```

5. Get all movies released in the 90s

```
> db.movies.find({$and:[{year:{$gte:1900}},{year:{$lt:2000}}]}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37795"),
  "title" : "Fight Club",
  "writer" : "Chuck Plahniuk",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37796"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "BJohn Travolta",
    "Uma Thurman"
  ]
}
```

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

```
> db.movies.find({$or:[{year:{$gt:2010}},{year:{$lt:2000}}]}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37795"),
  "title" : "Fight Club",
  "writer" : "Chuck Plahniuk",
  "year" : 1999,
  "actors" : [
    "Brad Pitt",
    "Edward Norton"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37796"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman"
  ]
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkien",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
```

Update Documents

1 .add a synopsis to "The Hobbit: An Unexpected Journey" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon Smaug."

```
> db.movies.update({'title':{'$eq':'The Hobbit: An Unexpected Journey'}},{ '$set':{'synopsis':'A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon Smaug.'}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

2. add a synopsis to "The Hobbit: The Desolation of Smaug" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."

```
> db.movies.update({'title':{'$eq':'The Hobbit: The Desolation of Smaug'}},{ '$set':{'synopsis':'The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring.'}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

```

> db.movies.find({synopsis:{$exists:true}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ],
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a
d the gold within it - from the dragon Smaug."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779b"),
  "title" : "The Hobbit: The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit",
  "synopsis" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue thei
aggins is in possession of a mysterious and magical ring."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779c"),
  "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 an array of comba
of a rising darkness."
}
}
>

```

3. add an actor named "Samuel L. Jackson" to the movie "Pulp Fiction"

```

> db.movies.update({title:{$eq:"Pulp Fiction"}},{ $push:{actors:"Samuel L. Jackson"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.movies.find({title:{$eq:"Pulp Fiction"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37796"),
  "title" : "Pulp Fiction",
  "writer" : "Quentin Tarantino",
  "year" : 1994,
  "actors" : [
    "John Travolta",
    "Uma Thurman",
    "Samuel L. Jackson"
  ]
}

```

Text Search

1. find all movies that have a synopsis that contains the word "Bilbo"

```
> db.movies.createIndex({synopsis:"text"})
{
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "createdCollectionAutomatically" : false,
  "ok" : 1
}
```

```
> db.movies.find({$text:{$search:"Bilbo", $caseSensitive:true}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779b"),
  "title" : "The Hobbit: The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit",
  "synopsis" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to recover the One Ring. Smaug, the dragon who guarded the treasure, has been slain, and Bilbo Baggins is in possession of a mysterious and magical ring."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779c"),
  "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 an array of combatants and keep the One Ring hidden from a rising darkness."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ],
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim the gold within it - from the dragon Smaug."
}
```


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

```
> db.movies.find({$text:{$search:"Gandalf"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779b"),
  "title" : "The Hobbit: The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit",
  "synopsis" : "The dwarves, along with Bilbo Baggins and Gandalf the
aggins is in possession of a mysterious and magical ring."
}
```

3. find all movies that have a synopsis that contains the word "Bilbo" and not the word "Gandalf"

```
> db.movies.find({$text:{$search:"Bilbo -Gandalf"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779c"),
  "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 an army
of a rising darkness."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ],
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain
to find the gold within it - from the dragon Smaug."
}
```

4. find all movies that have a synopsis that contains the word "dwarves" or "hobbit"

```
}
> db.movies.find({$text:{$search:"dwarves hobbit"}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ],
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lone
d the gold within it - from the dragon Smaug."
}
{
  "_id" : ObjectId("611e6e8c67a927d4d9f3779b"),
  "title" : "The Hobbit: The Desolation of Smaug",
  "writer" : "J.R.R. Tolkein",
  "year" : 2013,
  "franchise" : "The Hobbit",
  "synopsis" : "The dwarves, along with Bilbo Baggins and Gandalf the G
aggins is in possession of a mysterious and magical ring."
}
}
```

5. find all movies that have a synopsis that contains the word "gold" and "dragon"

```
> db.movies.find({$text:{$search:"\"gold\" \"dragon\""}}).pretty()
{
  "_id" : ObjectId("611e6e8c67a927d4d9f37798"),
  "title" : "The Hobbit: An Unexpected Journey",
  "writer" : "J.R.R. Tolkein",
  "year" : 2012,
  "actors" : [
    "Brad Pitt",
    "Diane Kruger",
    "Eli Roth"
  ],
  "synopsis" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lone
d the gold within it - from the dragon Smaug."
}
>
```

Delete Documents

1. delete the movie "Pee Wee Herman's Big Adventure"

```
> db.movies.deleteMany({title:{$eq:"Pee Wee Herman's Big Adventure"}})
{ "acknowledged" : true, "deletedCount" : 1 }
```

2. delete the movie "Avatar"

```
> db.movies.deleteMany({title:{$eq:"Avatar"}})
{ "acknowledged" : true, "deletedCount" : 1 }
>
```