MongoDB Query Document using find() method

In my previous tutorials I have used the find() method to query all the documents from a collection. In this tutorial, we will see the usage of find() method to query the documents from a collection based on the given criteria. Lets get started.

Querying all the documents in JSON format

Lets say we have a collection `students` in a database named `beginnersbookdb`. To get all the documents we use this command:

```
db.students.find()
```

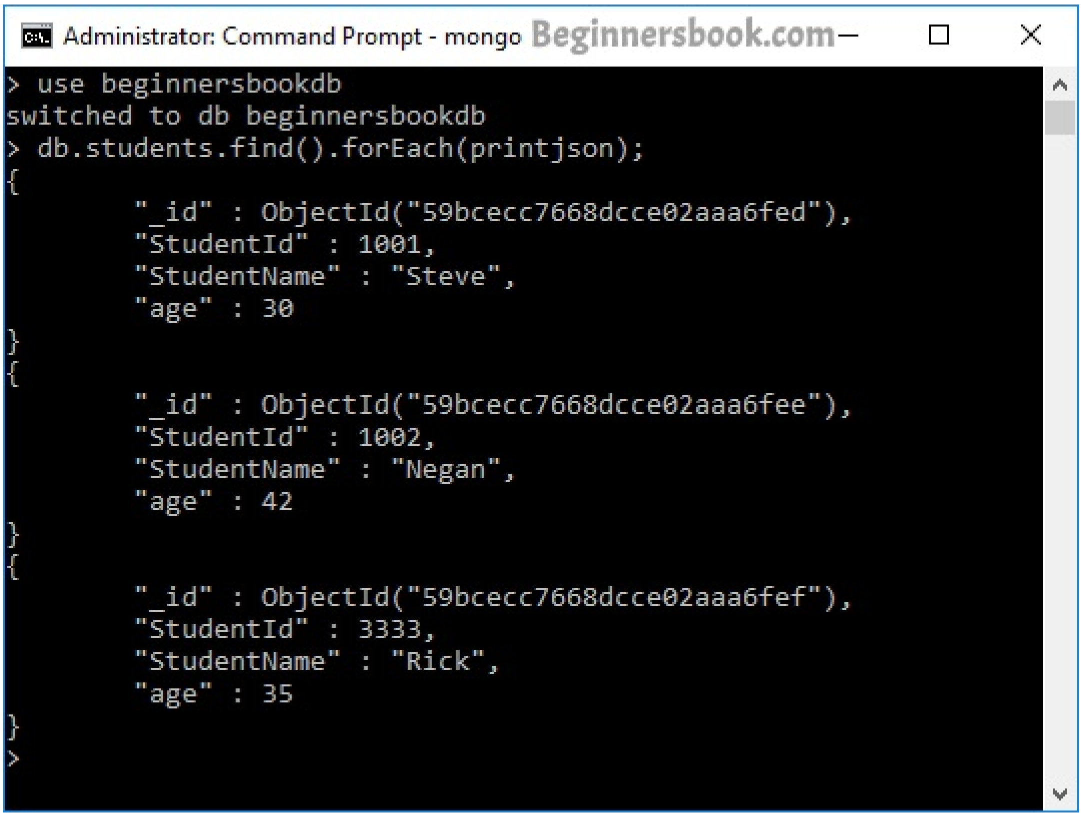
However the output we get is not in any format and less-readable. To improve the readability, we can format the output in JSON format with this command:

```
db.students.find().forEach(printjson);
```

OR simply use pretty() – It does the same thing.

```
db.students.find().pretty()
```

As you can see in the screenshot below that the documents are in JSON format.



```
> use beginnersbookdb
switched to db beginnersbookdb
> db.students.find().forEach(printjson);
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fed"),
        "StudentId" : 1001,
        "StudentName" : "Steve",
        "age" : 30
}
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fee"),
        "StudentId" : 1002,
        "StudentName" : "Negan",
        "age" : 42
}
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fef"),
        "StudentId" : 3333,
        "StudentName" : "Rick",
        "age" : 35
}
>
```

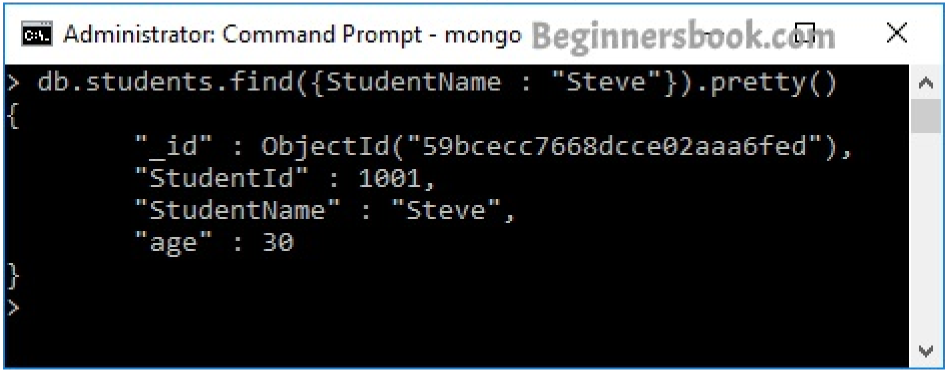
Query Document based on the criteria

Instead of fetching all the documents from collection, we can fetch selected documents based on a criteria.

Equality Criteria:
For example: I want to fetch the data of “Steve” from students collection. The command for this should be:

```
db.students.find({StudentName : "Steve"}).pretty()
```

This command returns the document matching the given criteria.



```
> db.students.find({StudentName : "Steve"}).pretty()
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fed"),
        "StudentId" : 1001,
        "StudentName" : "Steve",
        "age" : 30
}
>
```

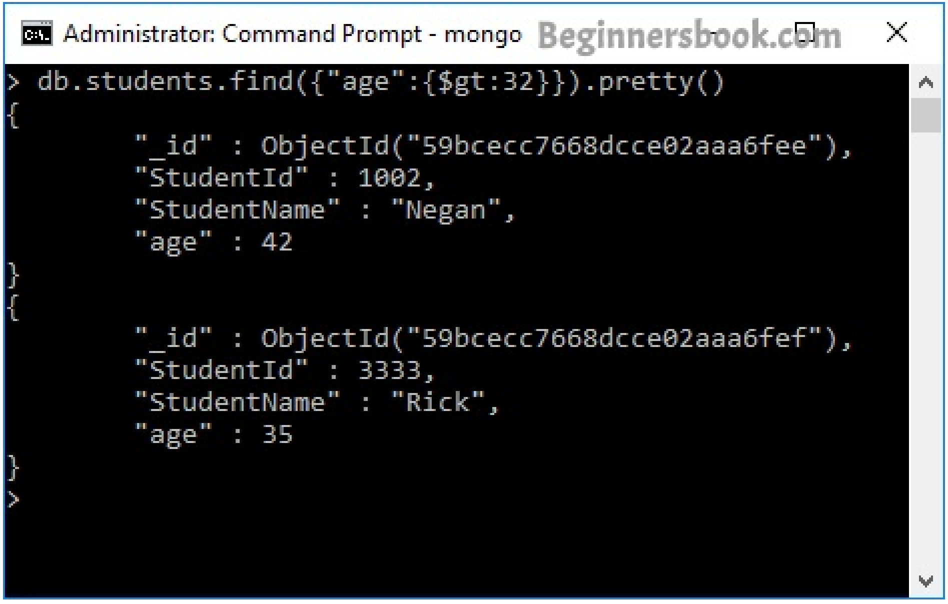
Greater Than Criteria:
Syntax:

```
db.collection_name.find({"field_name":{$gt:criteria_value}}).pretty()
```

For example: I would like to fetch the details of students having age > 32 then the query should be:

```
db.students.find({"age":{$gt:32}}).pretty()
```

I got two documents matching the criteria as shown in the screenshot below:



```
> db.students.find({"age":{$gt:32}}).pretty()
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fee"),
        "StudentId" : 1002,
        "StudentName" : "Negan",
        "age" : 42
}
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fef"),
        "StudentId" : 3333,
        "StudentName" : "Rick",
        "age" : 35
}
>
```

Less than Criteria:
Syntax:

```
db.collection_name.find({"field_name":{$lt:criteria_value}}).pretty()
```

Example: Find all the students having id less than 3000. The command for this criteria would be:

```
db.students.find({"StudentId":{$lt:3000}}).pretty()
```

Output:

```
> db.students.find({"StudentId":{$lt:3000}}).pretty()
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fed"),
        "StudentId" : 1001,
        "StudentName" : "Steve",
        "age" : 30
}
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fee"),
        "StudentId" : 1002,
        "StudentName" : "Negan",
        "age" : 42
}
```

Not Equals Criteria:
Syntax:

```
db.collection_name.find({"field_name":{$ne:criteria_value}}).pretty()
```

Example: Find all the students where id is not equal to 1002. The command for this criteria would be:

```
db.students.find({"StudentId":{$ne:1002}}).pretty()
```

Output:

```
> db.students.find({"StudentId":{$ne:1002}}).pretty()
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fed"),
        "StudentId" : 1001,
        "StudentName" : "Steve",
        "age" : 30
}
{
        "_id" : ObjectId("59bcecc7668dcce02aaa6fef"),
        "StudentId" : 3333,
        "StudentName" : "Rick",
        "age" : 35
}
```

Here are the other two criteria:

Greater than equals Criteria:

```
db.collection_name.find({"field_name":{$gte:criteria_value}}).pretty()
```

Less than equals Criteria:

```
db.collection_name.find({"field_name":{$lte:criteria_value}}).pretty()
```

> The pretty() method that we have added at the end of all the commands is not mandatory. It is just used for formatting purposes.