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Assignment 1 (Part 4)

GitHub Link
Note: Please refer to the GitHub link for the command execution in case of unclear

Create a collection called 'games'. We're going to put some games in it.
Add 5 games to the database.
Give each document the following properties: name, genre, rating (out of 100)

```
> db.games.insert({name: "Mortal Kombat", genre: "Fighting", rating: 90})
WriteResult({ "nInserted" : 1 })
> db.games.insert({name: "PubG", genre: "Battle Royale", rating: 95})
WriteResult({ "nInserted" : 1 })
> db.games.insert({name: "The Legend of Zelda", genre: "Adventure", rating: 80})
WriteResult({ "nInserted" : 1 })
> db.games.insert({name: "FIFA", genre: "Sports", rating: 75})
WriteResult({ "nInserted" : 1 })
> db.games.insert({name: "Super Mario", genre: "Action", rating: 70})
WriteResult({ "nInserted" : 1 })
> db.games.count()
5
```

```
> show collections
games
```

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Write a query that returns all the games

```
> db.games.find().pretty()
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90
}
{
        "_id" : ObjectId("628e2055b97bc284f55c909b"),
        "name" : "PubG",
        "genre" : "Battle Royale",
        "rating" : 95
}
{
        "_id" : ObjectId("628e2077b97bc284f55c909c"),
        "name" : "The Legend of Zelda",
        "genre" : "Adventure",
        "rating" : 80
}
{
        "_id" : ObjectId("628e20b7b97bc284f55c909d"),
        "name" : "FIFA",
        "genre" : "Sports",
        "rating" : 75
}
{
        "_id" : ObjectId("628e210db97bc284f55c909e"),
        "name" : "Super Mario",
        "genre" : "Action",
        "rating" : 70
}
```

Write a query to find one of your games by name without using limit().

```
> db.games.find({genre: "Action"})
{ "_id" : ObjectId("628e210db97bc284f55c909e"), "name" : "Super Mario", "genre" : "Action", "rating" : 70 }
```

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Use the findOne method. Look how much nicer it's formatted!

```
> db.games.findOne()
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90
}
```

Write a query that returns the 3 highest rated games.

```
> db.games.find({}).sort({rating:-1}).limit(3).pretty()
{
        "_id" : ObjectId("628e2055b97bc284f55c909b"),
        "name" : "PubG",
        "genre" : "Battle Royale",
        "rating" : 95
}
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90
}
{
        "_id" : ObjectId("628e2077b97bc284f55c909c"),
        "name" : "The Legend of Zelda",
        "genre" : "Adventure",
        "rating" : 80
}
```

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Update your two favorite games to have two achievements called ‘Game Master’ and ‘Speed Demon’, each under a single key. Do the first using update() and do the second using save().

first using update()

```
>  db.games.update({name:"PubG"}, {$set: {"Achievements": ["Game Master", "Speed Demon"]}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.games.find().pretty()
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90
}
{
        "_id" : ObjectId("628e2055b97bc284f55c909b"),
        "name" : "PubG",
        "genre" : "Battle Royale",
        "rating" : 95,
        "Achievements" : [
                "Game Master",
                "Speed Demon"
        ]
}
{
        "_id" : ObjectId("628e2077b97bc284f55c909c"),
        "name" : "The Legend of Zelda",
        "genre" : "Adventure",
        "rating" : 80
}
{
        "_id" : ObjectId("628e20b7b97bc284f55c909d"),
        "name" : "FIFA",
        "genre" : "Sports",
        "rating" : 75
}
{
        "_id" : ObjectId("628e210db97bc284f55c909e"),
        "name" : "Super Mario",
        "genre" : "Action",
        "rating" : 70
}
```

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second using save().

```
> db.games.save({"_id" : ObjectId("628e2000b97bc284f55c909a"), "name" : "Mortal Kombat",  "genre" : "Fighting",  "rating" : 90, "Achievements": ["Game Master", "Speed Demon"] })
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.games.find().pretty()
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90,
        "Achievements" : [
                "Game Master",
                "Speed Demon"
        ]
}
{
        "_id" : ObjectId("628e2055b97bc284f55c909b"),
        "name" : "PubG",
        "genre" : "Battle Royale",
        "rating" : 95,
        "Achievements" : [
                "Game Master",
                "Speed Demon"
        ]
}
{
        "_id" : ObjectId("628e2077b97bc284f55c909c"),
        "name" : "The Legend of Zelda",
        "genre" : "Adventure",
        "rating" : 80
}
{
        "_id" : ObjectId("628e20b7b97bc284f55c909d"),
        "name" : "FIFA",
        "genre" : "Sports",
        "rating" : 75
}
{
        "_id" : ObjectId("628e210db97bc284f55c909e"),
        "name" : "Super Mario",
        "genre" : "Action",
        "rating" : 70
```

Write a query that returns all the games that have both the ‘Game Master’ and the ‘Speed Demon’ achievements.

```
> db.games.find ( {"Achievements": ["Game Master", "Speed Demon"]} )
{ "_id" : ObjectId("628e2000b97bc284f55c909a"), "name" : "Mortal Kombat", "genre" : "Fighting", "rating" : 90, "Achievements" : [ "Game Master", "Speed Demon" ] }
{ "_id" : ObjectId("628e2055b97bc284f55c909b"), "name" : "PubG", "genre" : "Battle Royale", "rating" : 95, "Achievements" : [ "Game Master", "Speed Demon" ] }
```

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Write a query that returns only games that have achievements. Not all of your games should have achievements, obviously.

```
> db.games.update({name: "FIFA"}, { $set: {"Achievements" : "Game Master"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.games.update({name: "The Legend of Zelda"}, { $set: {"Achievements" : "Speed Demon"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.games.find().pretty()
{
        "_id" : ObjectId("628e2000b97bc284f55c909a"),
        "name" : "Mortal Kombat",
        "genre" : "Fighting",
        "rating" : 90,
        "Achievements" : [
                "Game Master",
                "Speed Demon"
        ]
}
{
        "_id" : ObjectId("628e2055b97bc284f55c909b"),
        "name" : "PubG",
        "genre" : "Battle Royale",
        "rating" : 95,
        "Achievements" : [
                "Game Master",
                "Speed Demon"
        ]
}
{
        "_id" : ObjectId("628e2077b97bc284f55c909c"),
        "name" : "The Legend of Zelda",
        "genre" : "Adventure",
        "rating" : 80,
        "Achievements" : "Speed Demon"
}
{
        "_id" : ObjectId("628e20b7b97bc284f55c909d"),
        "name" : "FIFA",
        "genre" : "Sports",
        "rating" : 75,
        "Achievements" : "Game Master"
}
{
        "_id" : ObjectId("628e210db97bc284f55c909e"),
        "name" : "Super Mario",
        "genre" : "Action",
        "rating" : 70
}
```

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```
> db.games.find ( { $or: [ {"Achievements" : "Game Master"}, {"Achievements" : "Speed Demon"} ] } )
{ "_id" : ObjectId("628e2000b97bc284f55c909a"), "name" : "Mortal Kombat", "genre" : "Fighting", "rating" : 90, "Achievements" : [ "Game Master", "Speed Demon" ] }
{ "_id" : ObjectId("628e2055b97bc284f55c909b"), "name" : "PubG", "genre" : "Battle Royale", "rating" : 95, "Achievements" : [ "Game Master", "Speed Demon" ] }
{ "_id" : ObjectId("628e2077b97bc284f55c909c"), "name" : "The Legend of Zelda", "genre" : "Adventure", "rating" : 80, "Achievements" : "Speed Demon" }
{ "_id" : ObjectId("628e20b7b97bc284f55c909d"), "name" : "FIFA", "genre" : "Sports", "rating" : 75, "Achievements" : "Game Master" }
```