# MongoDB Basics - Commands and Output

## 1. Show Available Databases
Command:
```
show dbs
```
Output:
```
admin    0.000GB
config   0.000GB
local    0.000GB
```

## 2. Create/Use a Database
Command:
```
use myDatabase
```
Output:
```
switched to db myDatabase
```

## 3. Create a Collection & Insert Data
Command:
```
db.users.insertOne({ name: "John", age: 30, country: "USA" })
```
Output:
```
{
  "acknowledged": true,
  "insertedId": ObjectId("60b8d295f1d2f3a9b8a7a8d1")
}
```

## 4. Insert Multiple Documents
Command:
```
db.users.insertMany([
  { name: "Alice", age: 25, country: "UK" },
  { name: "Bob", age: 28, country: "India" }
])
```
Output:
```
{
  "acknowledged": true,
  "insertedIds": {
    "0": ObjectId("60b8d295f1d2f3a9b8a7a8d2"),
    "1": ObjectId("60b8d295f1d2f3a9b8a7a8d3")
  }
```

}

## 5. Read Data (Find Documents)

Command:

```
db.users.find()
```

Output:

```
[
  { "_id": ObjectId("60b8d295f1d2f3a9b8a7a8d1"), "name": "John", "age": 30, "country": "USA" },
  { "_id": ObjectId("60b8d295f1d2f3a9b8a7a8d2"), "name": "Alice", "age": 25, "country": "UK" },
  { "_id": ObjectId("60b8d295f1d2f3a9b8a7a8d3"), "name": "Bob", "age": 28, "country": "India" }
]
```

## 6. Update Data

Command:

```
db.users.updateOne({ name: "John" }, { $set: { age: 31 } })
```

Output:

```
{
  "acknowledged": true,
  "matchedCount": 1,
  "modifiedCount": 1
}
```

## 7. Delete Data

Command:

```
db.users.deleteOne({ name: "Alice" })
```

Output:

```
{
  "acknowledged": true,
  "deletedCount": 1
}
```

## 8. Create an Index for Performance

Command:

```
db.users.createIndex({ name: 1 })
```

Output:

```
{
  "createdCollectionAutomatically": false,
  "numIndexesBefore": 1,
```

```
  "numIndexesAfter": 2,
  "ok": 1
}
```

9. Aggregation Example (Count Users by Country)

Command:

```
db.users.aggregate([
  { $group: { _id: "$country", count: { $sum: 1 } } }
])
```

Output:

```
[
  { "_id": "USA", "count": 1 },
  { "_id": "India", "count": 1 }
]
```

Conclusion

This document provides a reference for common MongoDB commands with their outputs. These comman