MongoDB Demo

Installing MongoDB and Robo 3T

- Download MongoDB from:
  - https://www.mongodb.com/download-center#community.
- Download Rob 3T from:
  - https://robomongo.org/
- Download MongoDB driver:
  - npm install mongodb --save

Create a Connection

```
//Get MongoClient from mongodb library
const MongoClient = require('mongodb').MongoClient;

MongoClient.connect('mongodb://localhost:27017/BookApp', (err,client) => {
    if(err){
        console.log("Error Connecting to Mongo Database");
    }else{
        console.log("Connection Successful");
        //Business Logic goes here
        //close the connection
        client.close();
    }
})
```

Insert a document in a Collection

```
MongoClient.connect('mongodb://localhost:27017/BookApp', (err,client) => {
    if(err){
        console.log("Error Connecting to Mongo Database");
    }else{
        console.log("Connection Successful");
        const db = client.db('BookApp');
        db.collection('Books').insertOne({
            bookID : '1',
            title : 'Book 1',
            author : 'Author 1'
        },(err,result)=>{
            if(err){
                console.log("Unable to insert record to the database : ",err);
            }else{
                console.log(JSON.stringify(result.ops,undefined,2));
            }
        })
        client.close();
    }
})
```

Fetch a document from collection

```
MongoClient.connect('mongodb://localhost:27017/BookApp', (err,client) => {
    if(err){
        console.log("Error Connecting to Mongo Database");
    }else{
        console.log("Connection Successful");
        const db = client.db('BookApp');
        db.collection('Books').find({
            bookID : "1"
        })
        .toArray()
        .then((docs)=>{
            console.log("Documents Fetched : ");
            console.log(JSON.stringify(docs,undefined,2));
        },(err)=>{
            console.log("Unable to fetch documents : ",err);
        })
        client.close();
    }
})
```

Delete a document from collection

```
MongoClient.connect('mongodb://localhost:27017/BookApp', (err,client) => {
    if(err){
        console.log("Error Connecting to Mongo Database");
    }else{
        console.log("Connection Successful");
        const db = client.db('BookApp');
        db.collection('Books').deleteOne({
            bookID : "1"
        },(err,result) => {
            if(err){
                console.log("Unable to delete the document");
            }else{
                console.log("Document with ID 1 deleted successfully");
            }
        })
        client.close();
    }
})
```

Update a document

```
MongoClient.connect('mongodb://localhost:27017/BookApp', (err,client) => {
    if(err){
        console.log("Error Connecting to Mongo Database");
    }else{
        console.log("Connection Successful");
        const db = client.db('BookApp');
        db.collection('Books').findOneAndUpdate({
            bookID : "1"
        },{
            $set : {
                title : "Book 1 New Title"
            }
        },{
            returnOriginal : false
        }).then((result) => {
            console.log("Updated document : ", result);
        })
        client.close();
    }
})
```

Mongoose - Model

```
var mongoose = require('mongoose');
mongoose.Promise = global.Promise;
mongoose.connect("mongodb://localhost:27017/BookApp");
var Books = mongoose.model('Books',{
    bookID :{
        type : Number
    },
    title :{
        type : String
    },
    author : {
        type : String
    }
})
var book = new Books({
    bookID : 1,
    title : 'Book 1',
    author : 'Author 1'
});

book.save().then((doc) =>{
    console.log("Book saved successfully : ", doc);
},(err) =>{
    console.log("Unable to save the book");
})
```

Resources

- https://www.mongodb.com/
- https://docs.mongodb.com/manual/tutorial/query-documents/