ASSIGNMENT 4 – Creating a Database using MongoDB and Mongosh

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Index.js

```
express = require('express')
const mongoose = require ('mongoose');
const Product = require('./models/product.model.js');
const app = express()

app.use(express.json());



//reading all products
app.get('/', function (req, res) {
         res.send("hello from the node api update");
     });

     app.get('/api/products', async (req,res)=> {

      try {
         const products = await Product.find({});
         res.status(200).json(products);

         }catch(error){
            res.status(500).json({message: error.message});

         }
     });

      //read api but by only one product
     app.get('/api/product/:id', async (req,res) =>{
```

```
try{
       const {id} = req.params;
       const product = await Product.findById(id);
       res.status(200).json( product );

 } catch(error){
    res.status(500).json({message: error.message});
 }
});


//creat api
app.post('/api/products',async (req,res)=>{
try{
   const product = await Product.create(req.body);
   res.status(200).json(product);
```

```
        }catch (error){
         res.status(500).json({message: error.message });
        }
        });



            //update a product
            app.put('/api/product/:id', async (req,res) => {
               try {
                  const{id} = req.params;

                   const product = await Product.findByIdAndUpdate(id ,

    req.body);         if(!product){
                         return res.status(404).json({message:"Product not found"});
                       }

                        const updatedProduct = await Product.findById(id);
                         res.status(200).json(updatedProduct);



               }catch(error){
                  res.status(500).json({message: error.message });
               }
            });


            //delete a product

            app.delete("/api/product/:id", async(req,res)=>{
               try{
                  const{id}= req.params;
                 const product = await Product.findByIdAndDelete(id);
                 if (!product){
                  return res.status(404).json({message: "Product not found"});
                 }

                 res.status(200).json({message:"Product deleted successfully"});


               }catch(error){
                  res.status(500).json({message: error.message });
               }
            } )
```

```
     //here first i connected db and then listened to the port

     mongoose.connect("mongodb+srv://akashvaddi333:K5m18vy6fB6aU7K2@cluster0.h
p9gamr.mongodb.net/Node-API?retryWrites=true&w=majority&appName=Cluster0")
  .then(() => {console.log('Connected!');
  app.listen(3000, () =>{
    console.log('server is running on port 3000')
 });

});
```

Package. Json

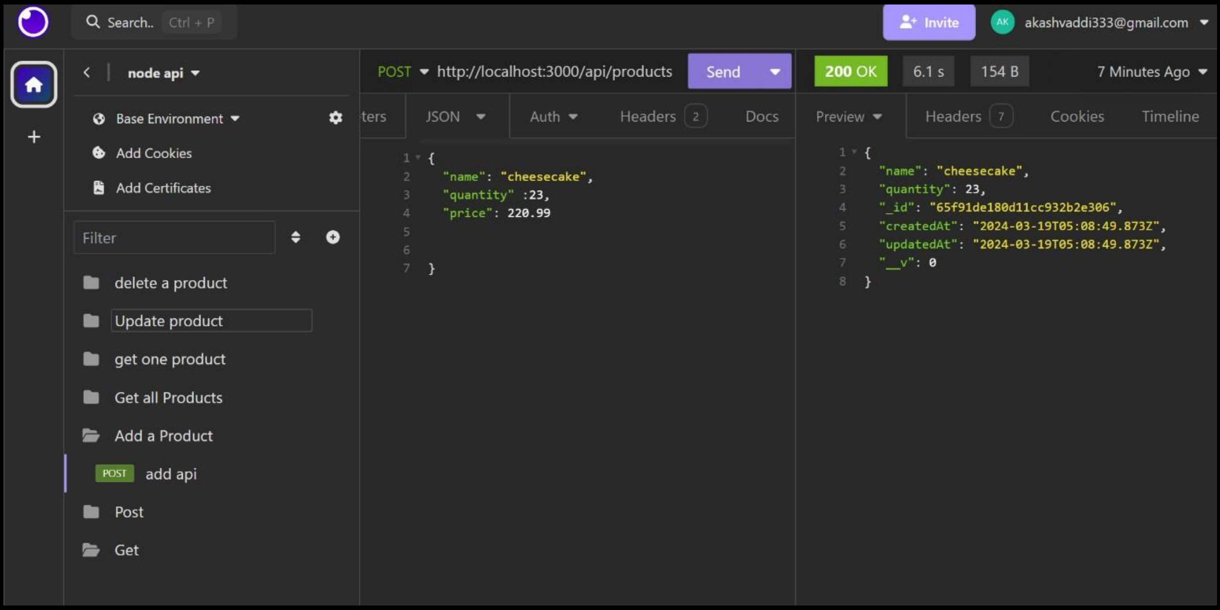
```
{
  "name": "aka-qpi",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "serve": "node index.js",
    "dev": "nodemon index.js"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "dependencies": {
    "express": "^4.18.3",
    "mongodb": "^6.5.0",
    "mongoose": "^8.2.2"
  },
  "devDependencies": {
    "nodemon": "^3.1.0"
  }
}
```

Product.model.js

```
const mongoose = require ('mongoose');


const ProductSchema =  mongoose.Schema(
    {
        name: {
                type:String,
                required: [true,"proto"],


        },
        quantity:{
            type:Number,
            required:true,
            default:0
        },

        image:{
            type:String,
            required: false
        },


    } ,

    {
            timestamps: true,
    }
);



const Product = mongoose.model("Product",ProductSchema);
module.exports= Product;
```

- ***CRUD operations***

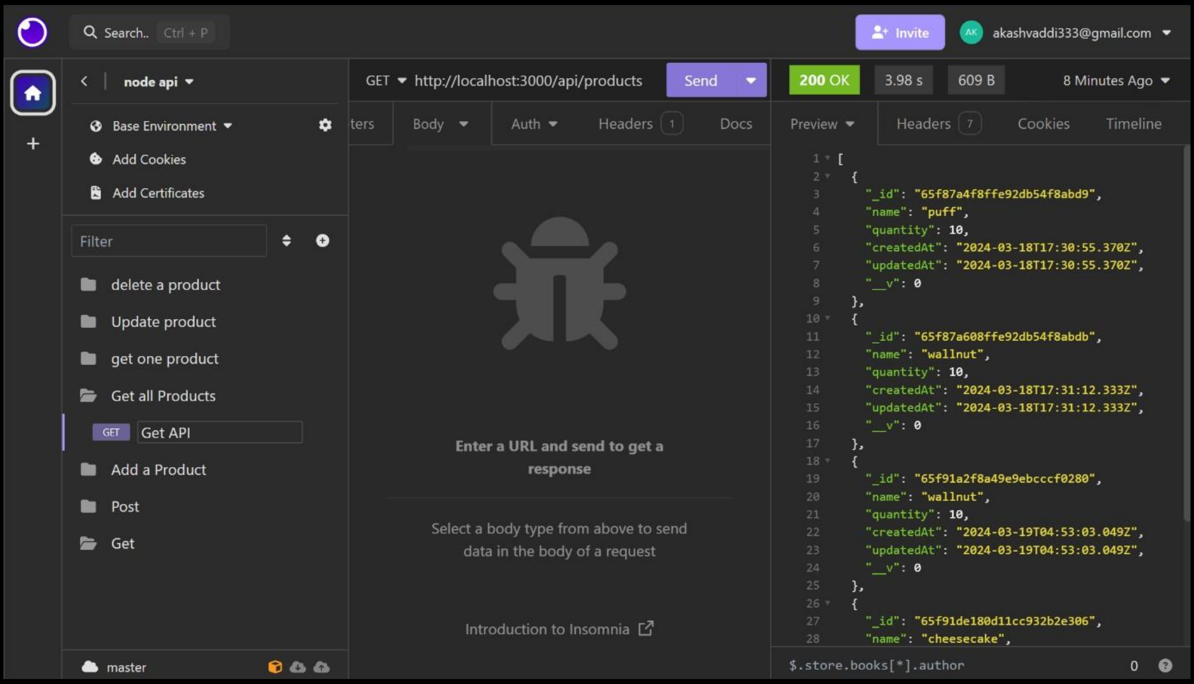
Create api:


POST http://localhost:3000/api/products — 200 OK, 6.1 s, 154 B, 7 Minutes Ago

```
{
  "name": "cheesecake",
  "quantity" :23,
  "price": 220.99

}
```

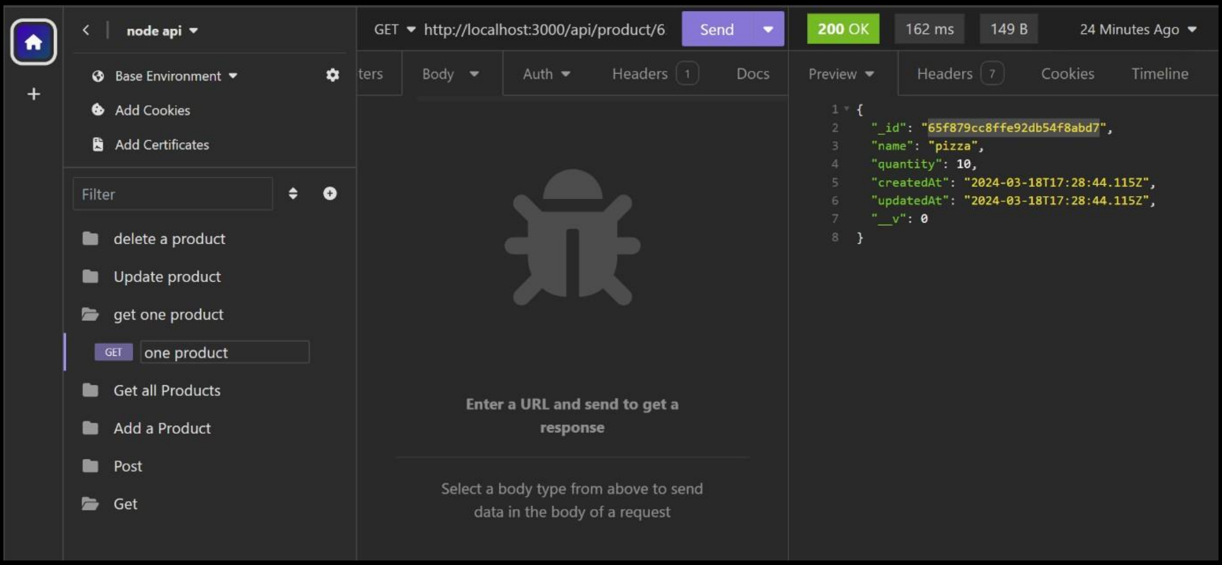
```
{
  "name": "cheesecake",
  "quantity": 23,
  "_id": "65f91de180d11cc932b2e306",
  "createdAt": "2024-03-19T05:08:49.873Z",
  "updatedAt": "2024-03-19T05:08:49.873Z",
  "__v": 0
}
```

Read Api:


GET http://localhost:3000/api/products — 200 OK, 3.98 s, 609 B, 8 Minutes Ago

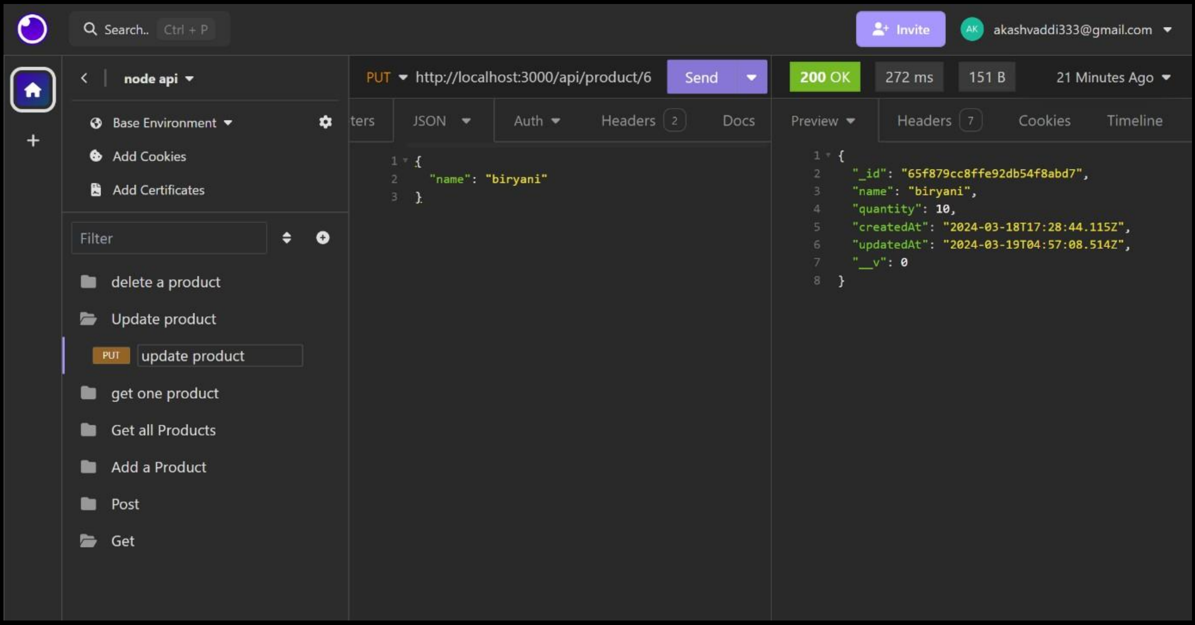
```
[
  {
    "_id": "65f87a4f8ffe92db54f8abd9",
    "name": "puff",
    "quantity": 10,
    "createdAt": "2024-03-18T17:30:55.370Z",
    "updatedAt": "2024-03-18T17:30:55.370Z",
    "__v": 0
  },
  {
    "_id": "65f87a608ffe92db54f8abdb",
    "name": "wallnut",
    "quantity": 10,
    "createdAt": "2024-03-18T17:31:12.333Z",
    "updatedAt": "2024-03-18T17:31:12.333Z",
    "__v": 0
  },
  {
    "_id": "65f91a2f8a49e9ebcccf0280",
    "name": "wallnut",
    "quantity": 10,
    "createdAt": "2024-03-19T04:53:03.049Z",
    "updatedAt": "2024-03-19T04:53:03.049Z",
    "__v": 0
  },
  {
    "_id": "65f91de180d11cc932b2e306",
    "name": "cheesecake",
```

Read one Api:



```
{
  "_id": "65f879cc8ffe92db54f8abd7",
  "name": "pizza",
  "quantity": 10,
  "createdAt": "2024-03-18T17:28:44.115Z",
  "updatedAt": "2024-03-18T17:28:44.115Z",
  "__v": 0
}
```

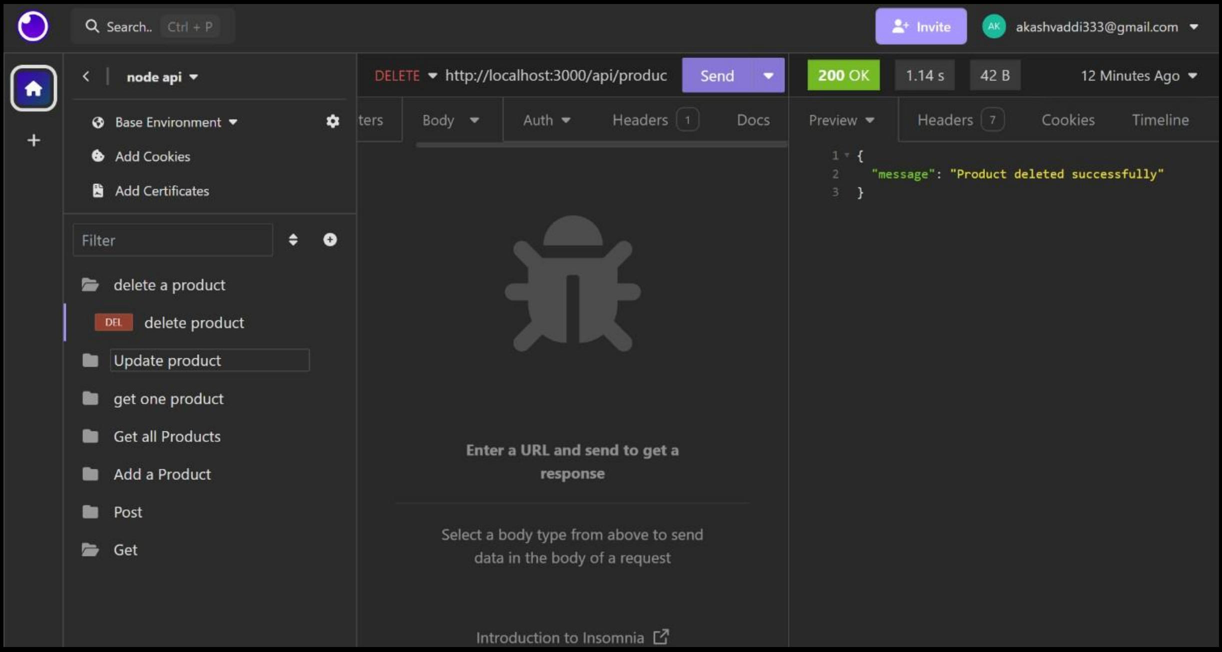
Update Api:



```
{
  "name": "biryani"
}
```

```
{
  "_id": "65f879cc8ffe92db54f8abd7",
  "name": "biryani",
  "quantity": 10,
  "createdAt": "2024-03-18T17:28:44.115Z",
  "updatedAt": "2024-03-19T04:57:08.514Z",
  "__v": 0
}
```

Delete Api:

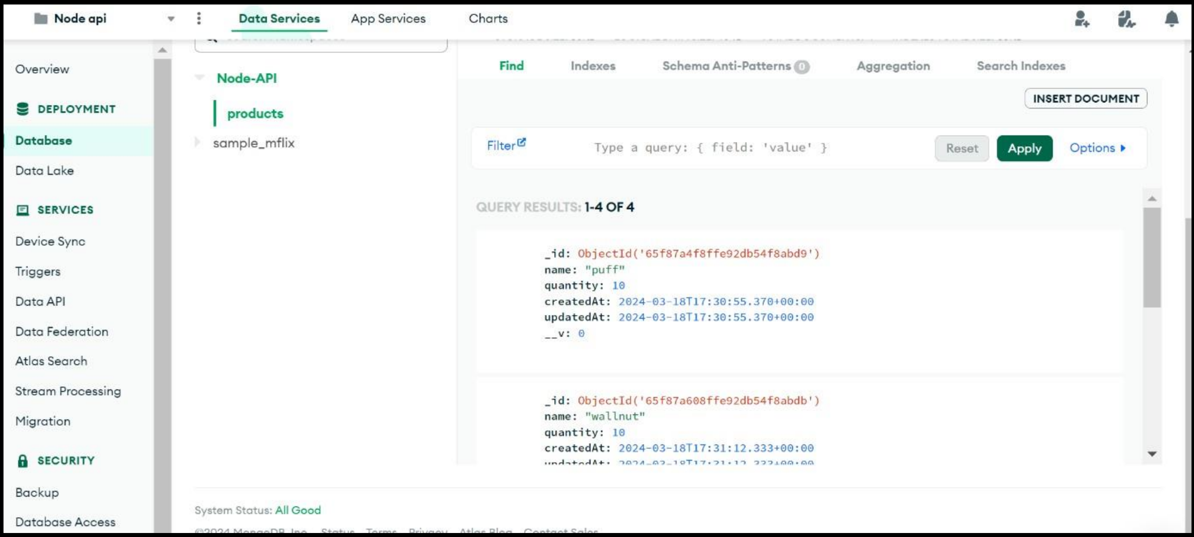


DELETE http://localhost:3000/api/produc

200 OK 1.14 s 42 B 12 Minutes Ago

```
{
  "message": "Product deleted successfully"
}
```

MongoDB : (final view)

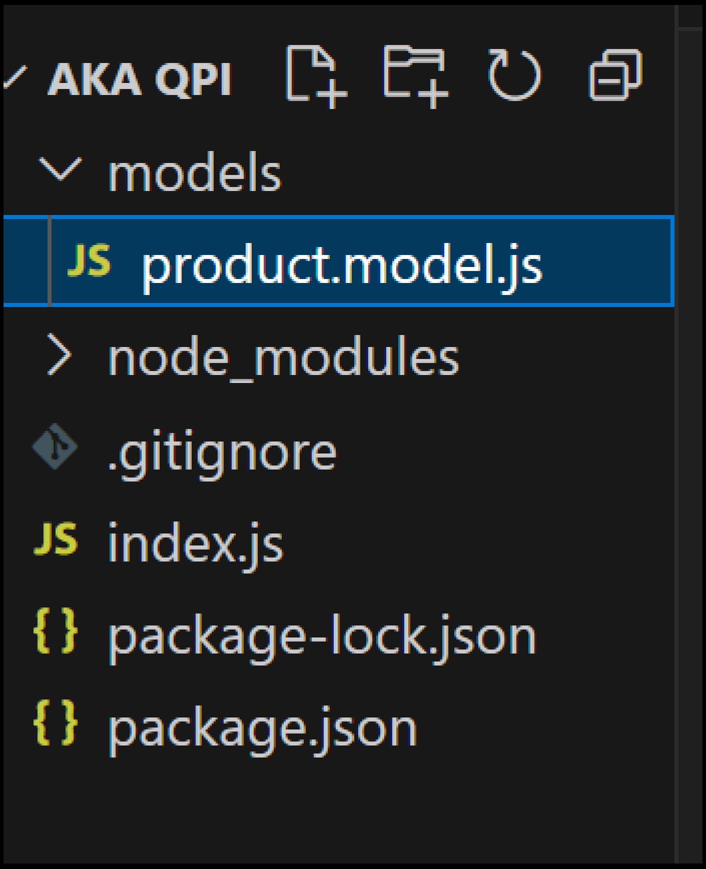


QUERY RESULTS: 1-4 OF 4

```
_id: ObjectId('65f87a4f8ffe92db54f8abd9')
name: "puff"
quantity: 10
createdAt: 2024-03-18T17:30:55.370+00:00
updatedAt: 2024-03-18T17:30:55.370+00:00
__v: 0
```

```
_id: ObjectId('65f87a608ffe92db54f8abdb')
name: "wallnut"
quantity: 10
createdAt: 2024-03-18T17:31:12.333+00:00
```

AKA QPI:


AKA QPI
models
product.model.js
node_modules
.gitignore
index.js
package-lock.json
package.json