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Assignment:3: A RESTful API using express.js and create a database and index in MongoDB

Source code:

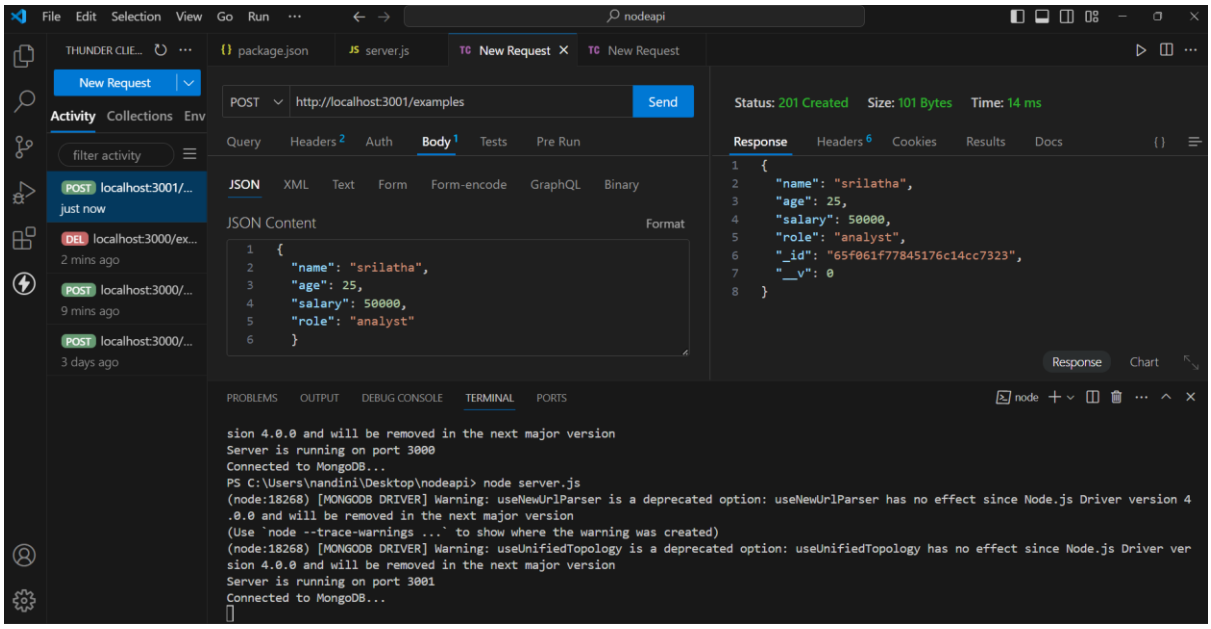
```
const express = require('express');
const mongoose = require('mongoose');
const app = express();
const port = 3001;

// MongoDB connection
mongoose.connect('mongodb://localhost:27017/myDatabase', { useNewUrlParser:
true, useUnifiedTopology: true });
const db = mongoose.connection;
db.on('error', console.error.bind(console, 'MongoDB connection error:'));
db.once('open', function() {
    console.log('Connected to MongoDB...');
});

// Define a schema for your data
const Schema = mongoose.Schema;
const exampleSchema = new Schema({
    name: String,
    age: Number,
    salary: Number,
    role: String
});

// Create a model based on the schema
const Example = mongoose.model('Example', exampleSchema);

// Express middleware for parsing JSON bodies
app.use(express.json());

// Route to create a new example
app.post('/examples', async (req, res) => {
    try {
        const example = await Example.create(req.body);
        res.status(201).json(example);
    } catch (err) {
        res.status(400).json({ message: err.message });
    }
});

// Route to retrieve all examples where salary and role have values greater
than 2
app.get('/examples', async (req, res) => {
```

```
    try {
        const examples = await Example.find({
            $and: [
                { salary: { $gt: 2 } }, // Salary greater than 2
                { role: { $gt: 2 } }    // Role greater than 2
            ]
        });
        res.json(examples);
    } catch (err) {
        res.status(500).json({ message: err.message });
    }
});

// Route to retrieve a specific example by ID
app.get('/examples/:id', async (req, res) => {
    try {
        const example = await Example.findById(req.params.id);
        if (!example) {
            return res.status(404).json({ message: 'Example not found' });
        }
        res.json(example);
    } catch (err) {
        res.status(500).json({ message: err.message });
    }
});

// Route to update an example by ID
app.put('/examples/:id', async (req, res) => {
    try {
        const example = await Example.findByIdAndUpdate(req.params.id,
req.body, { new: true });
        if (!example) {
            return res.status(404).json({ message: 'Example not found' });
        }
        res.json(example);
    } catch (err) {
        res.status(400).json({ message: err.message });
    }
});

// Route to delete an example by ID
app.delete('/examples/:id', async (req, res) => {
    try {
        const example = await Example.findByIdAndDelete(req.params.id);
        if (!example) {
            return res.status(404).json({ message: 'Example not found' });
        }
        res.json({ message: 'Example deleted successfully' });
```

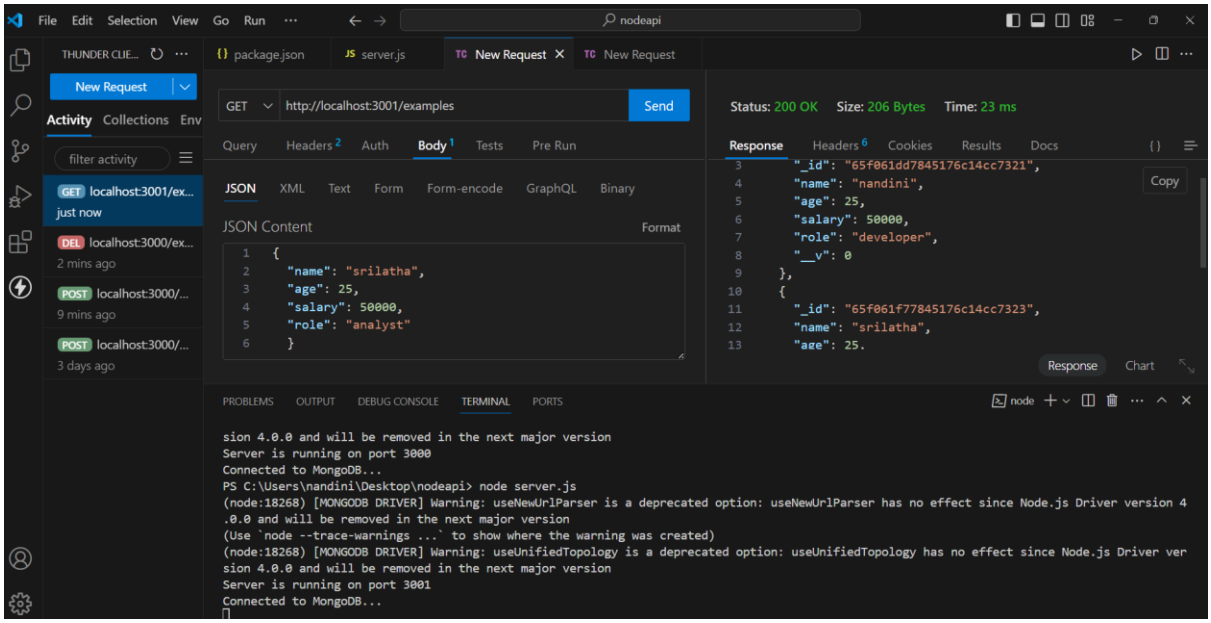
```
    } catch (err) {
        res.status(500).json({ message: err.message });
    }
});

// Start the server
app.listen(port, () => {
    console.log(`Server is running on port ${port}`);
});
```

OutPut:

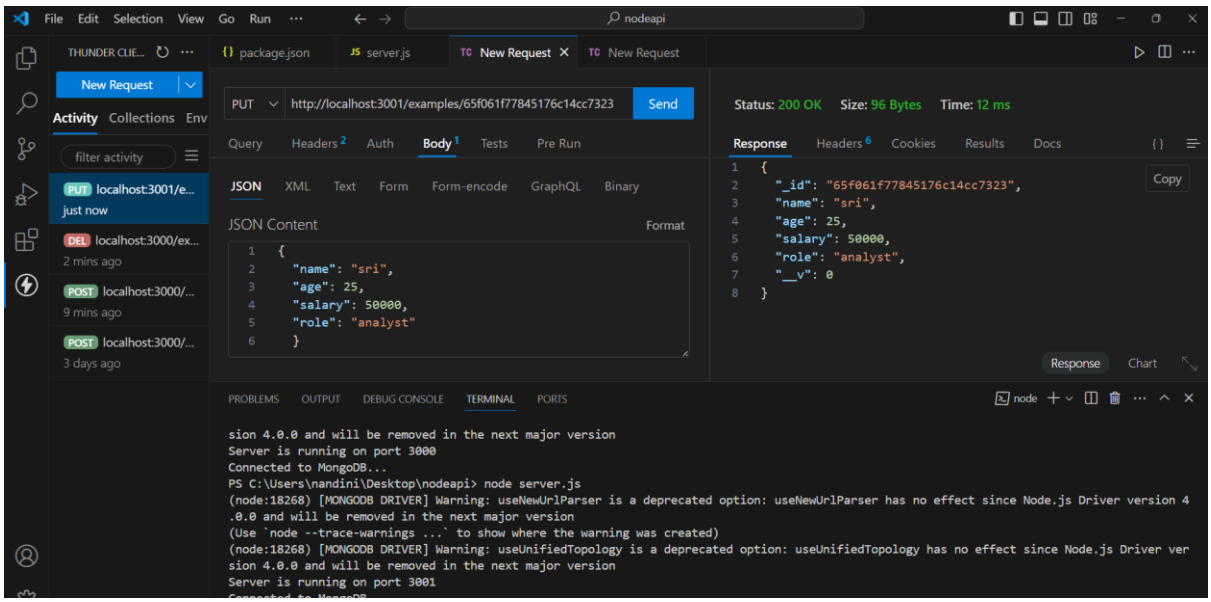
Post method:



Get Method:



Put method:



Delete method: