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College:Sri Padmavathi Mahila Visvavidyalayam
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 });
    }
});

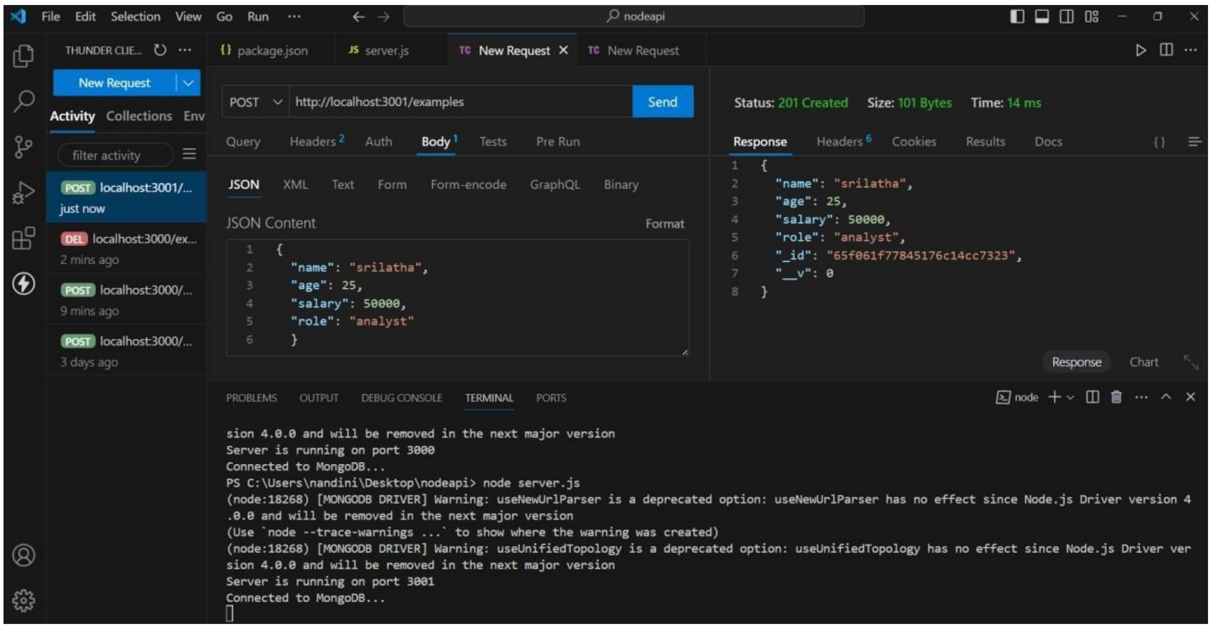
// Route to delete an example by ID
app.delete('/examples/:id', async (req, res) => {     try {         const
example = await Example.findByIdAndDelete(req.params.id);         if
(!example) {             return res.status(404).json({ message: 'Example
not found' });
        }         res.json({ message: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



File Edit Selection View Go Run
nodeapi
THUNDER CLIE...
New Request
Activity Collections Env
filter activity
POST localhost:3001/... just now
DEL localhost:3000/ex... 2 mins ago
POST localhost:3000/... 9 mins ago
POST localhost:3000/... 3 days ago
package.json
server.js
New Request
New Request
Send
Query Headers 2 Auth Body 1 Tests Pre Run
JSON XML Text Form Form-encode GraphQL Binary
JSON Content
Format
Response Headers 6 Cookies Results Docs
Response
Chart
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
node

POST http://localhost:3001/examples

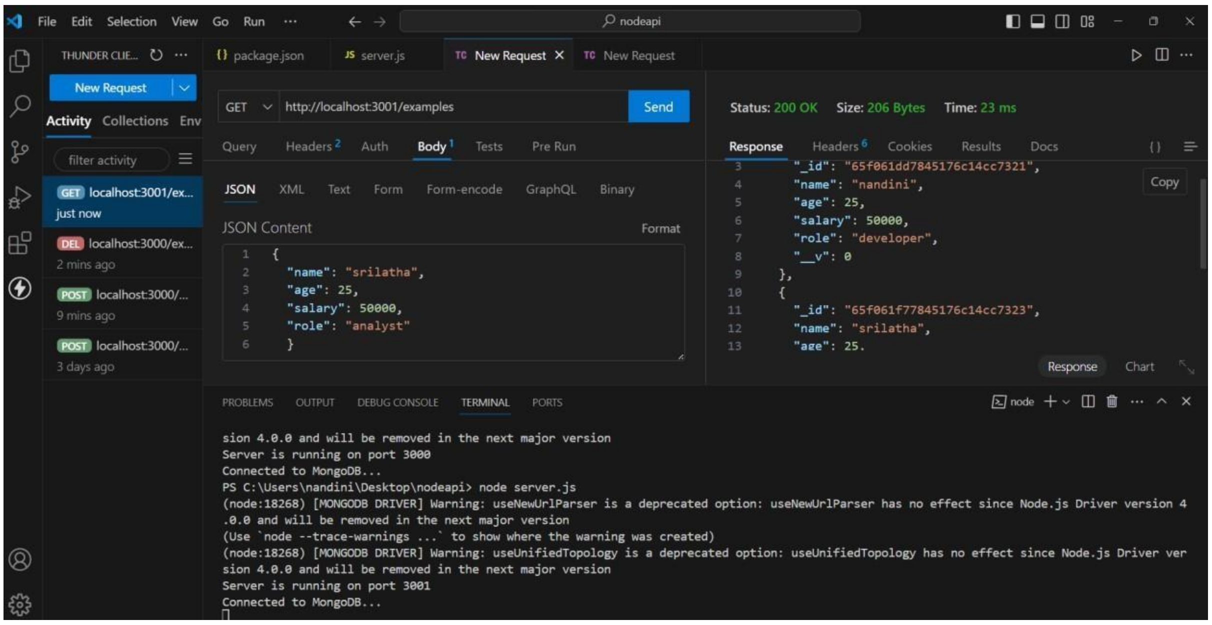
```
{
  "name": "srilatha",
  "age": 25,
  "salary": 50000,
  "role": "analyst"
}
```

Status: 201 Created Size: 101 Bytes Time: 14 ms

```
{
  "name": "srilatha",
  "age": 25,
  "salary": 50000,
  "role": "analyst",
  "_id": "65f061f77845176c14cc7323",
  "__v": 0
}
```

```
sion 4.0.0 and will be removed in the next major version
Server is running on port 3000
Connected to MongoDB...
PS C:\Users\nandini\Desktop\nodeapi> node server.js
(node:18268) [MONGODB DRIVER] Warning: useNewUrlParser is a deprecated option: useNewUrlParser has no effect since Node.js Driver version 4
.0.0 and will be removed in the next major version
(Use `node --trace-warnings ...` to show where the warning was created)
(node:18268) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js Driver ver
sion 4.0.0 and will be removed in the next major version
Server is running on port 3001
Connected to MongoDB...
```

Get Method: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Query Headers 2 Auth Body 1 Tests Pre Run
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Response Headers 6 Cookies Results Docs
Copy
Response Chart
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
node

GET http://localhost:3001/examples

```
{
    "name": "srilatha",
    "age": 25,
    "salary": 50000,
    "role": "analyst"
}
```

Status: 200 OK Size: 206 Bytes Time: 23 ms

```
    "_id": "65f061dd7845176c14cc7321",
    "name": "nandini",
    "age": 25,
    "salary": 50000,
    "role": "developer",
    "__v": 0
  },
  {
    "_id": "65f061f77845176c14cc7323",
    "name": "srilatha",
    "age": 25,
```

```
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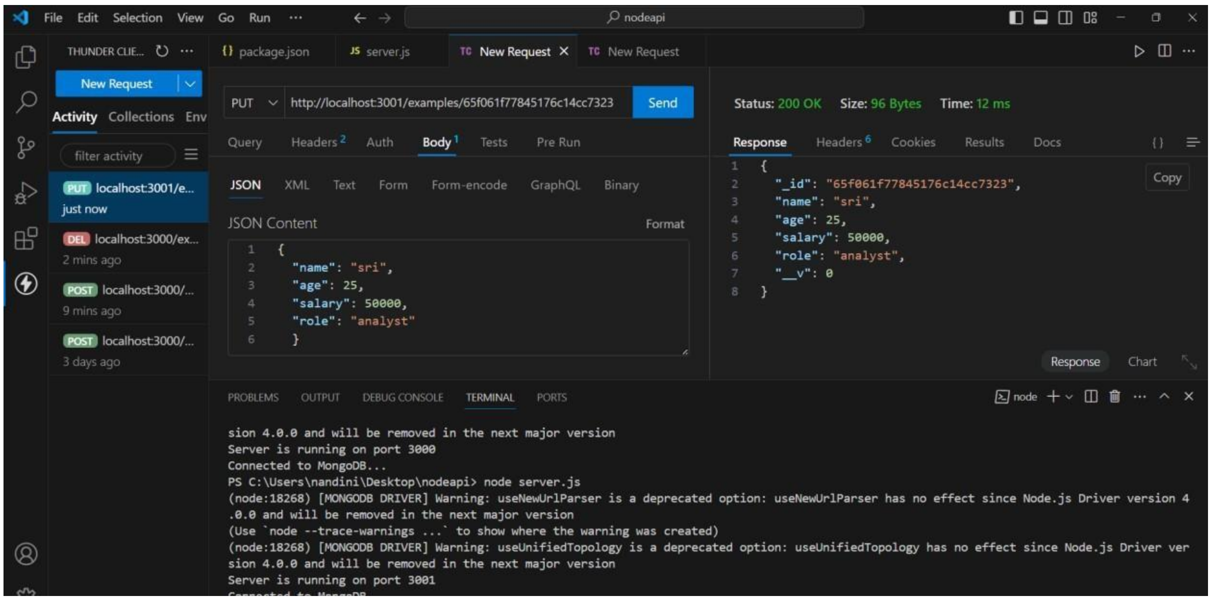
```

Put method: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PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
node

PUT http://localhost:3001/examples/65f061f77845176c14cc7323

```
{
    "name": "sri",
    "age": 25,
    "salary": 50000,
    "role": "analyst"
}
```

Status: 200 OK Size: 96 Bytes Time: 12 ms

```
{
  "_id": "65f061f77845176c14cc7323",
  "name": "sri",
  "age": 25,
  "salary": 50000,
  "role": "analyst",
  "__v": 0
}
```

```
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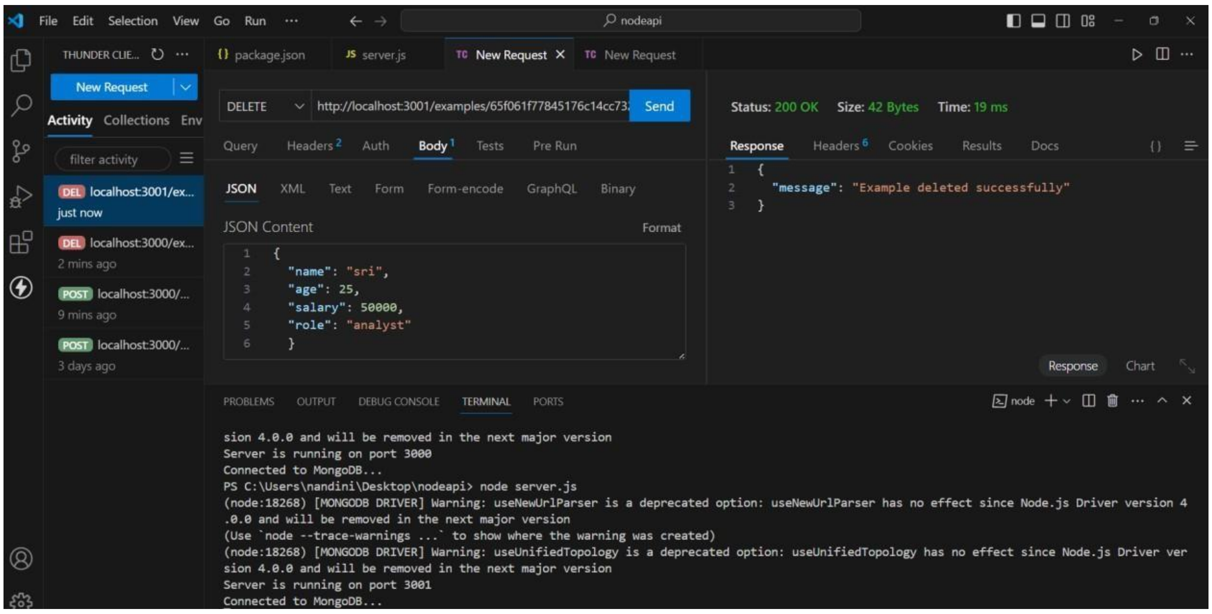
Delete method: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DELETE http://localhost:3001/examples/65f061f77845176c14cc73

Send

```json
{
  "name": "sri",
  "age": 25,
  "salary": 50000,
  "role": "analyst"
  }
```

Status: 200 OK Size: 42 Bytes Time: 19 ms

```json
{
  "message": "Example deleted successfully"
}
```

```
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```