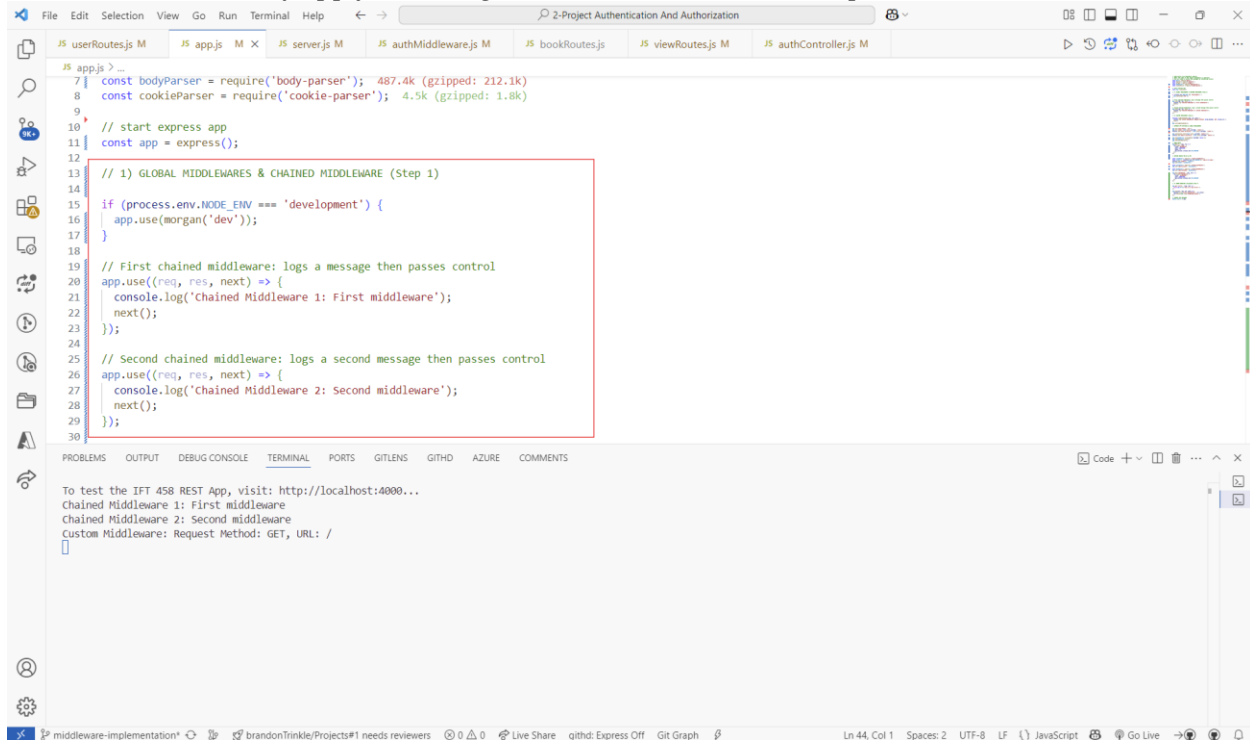


**Module 6 Activity 1****Brandon Trinkle****IFT 458: Middleware Prog & Database Sec****Professor: Dinesh Sthapit****Mar 22, 2025**

## Module 6 Activity 1

### 1. Screenshots Of app.js showing the chained middleware implementation.



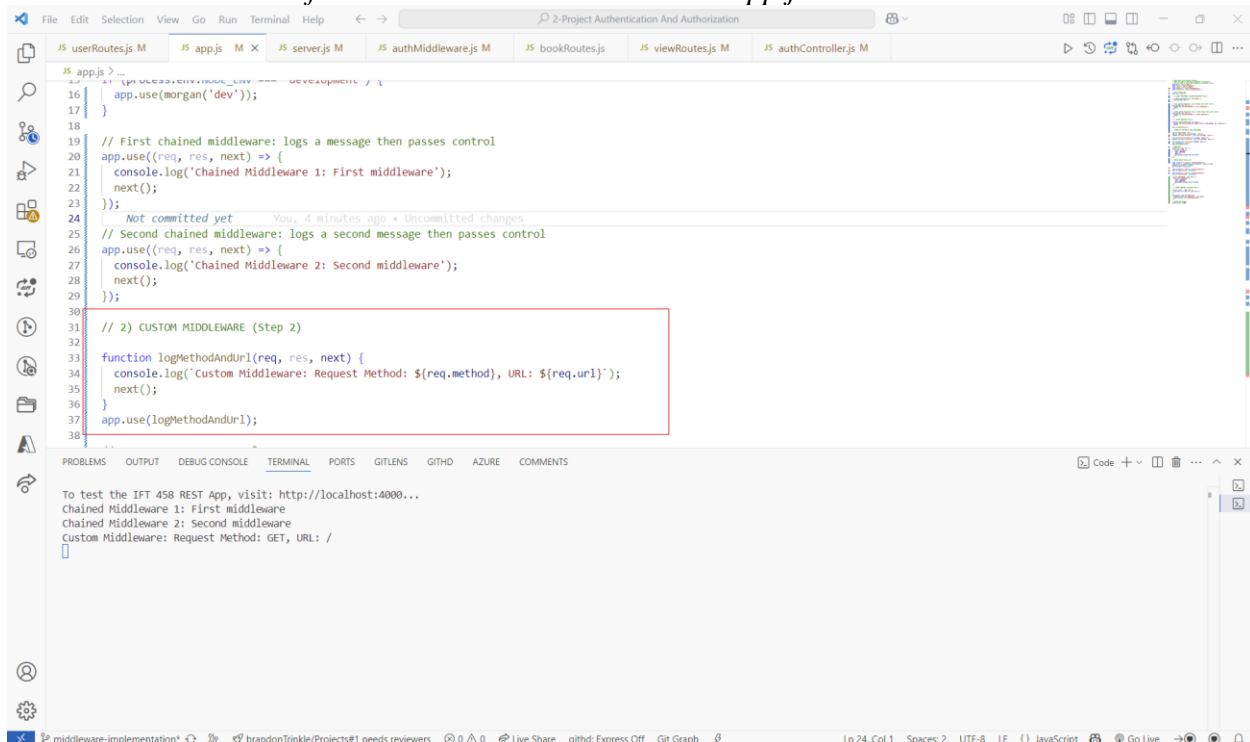
The screenshot shows the VS Code editor with the file `app.js` open. The code implements a basic Express.js application with chained middleware. A red box highlights the middleware section from line 13 to 29. The terminal at the bottom shows the output of the application running on port 4000.

```
7 | const bodyParser = require('body-parser'); // 487.4K (gzipped: 212.1k)
8 | const cookieParser = require('cookie-parser'); // 4.5k (gzipped: 1.8k)
9 |
10 | // start express app
11 | const app = express();
12 |
13 | // 1) GLOBAL MIDDLEWARES & CHAINED MIDDLEWARE (Step 1)
14 |
15 | if (process.env.NODE_ENV === 'development') {
16 |   app.use(morgan('dev'));
17 | }
18 |
19 | // First chained middleware: logs a message then passes control
20 | app.use((req, res, next) => {
21 |   console.log('chained Middleware 1: First middleware');
22 |   next();
23 | });
24 |
25 | // Second chained middleware: logs a second message then passes control
26 | app.use((req, res, next) => {
27 |   console.log('chained Middleware 2: Second middleware');
28 |   next();
29 | });
30 |
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS GITHD AZURE COMMENTS

To test the IFT 458 REST App, visit: <http://localhost:4000...>  
Chained Middleware 1: First middleware  
Chained Middleware 2: Second middleware  
Custom Middleware: Request Method: GET, URL: /

### 2. Screenshot 2: Of the custom middleware code in app.js.



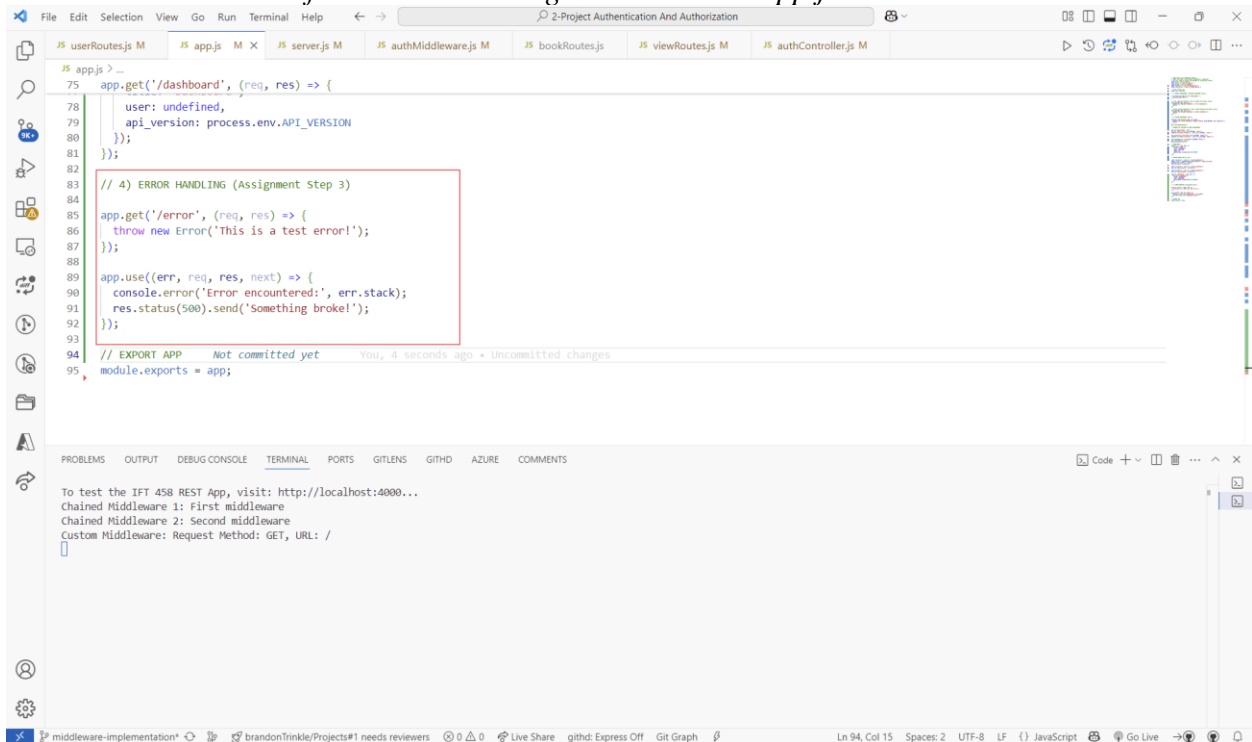
This screenshot shows the same `app.js` file, but with a red box highlighting the custom middleware implementation from line 31 to 38. The terminal output now includes the log from the custom middleware.

```
16 |   app.use(morgan('dev'));
17 | }
18 |
19 | // First chained middleware: logs a message then passes control
20 | app.use((req, res, next) => {
21 |   console.log('chained Middleware 1: First middleware');
22 |   next();
23 | });
24 | // Second chained middleware: logs a second message then passes control
25 | app.use((req, res, next) => {
26 |   console.log('chained Middleware 2: Second middleware');
27 |   next();
28 | });
29 |
30 | // 2) CUSTOM MIDDLEWARE (Step 2)
31 |
32 | function logMethodAndUrl(req, res, next) {
33 |   console.log('Custom Middleware: Request Method: ${req.method}, URL: ${req.url}');
34 |   next();
35 | }
36 | app.use(logMethodAndUrl);
37 |
38 |
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS GITHD AZURE COMMENTS

To test the IFT 458 REST App, visit: <http://localhost:4000...>  
Chained Middleware 1: First middleware  
Chained Middleware 2: Second middleware  
Custom Middleware: Request Method: GET, URL: /

### 3. Screenshot 3: Of the error handling middleware in app.js.



### 4. Screenshot 4: Of the /error route and the error response in the browser or terminal.

