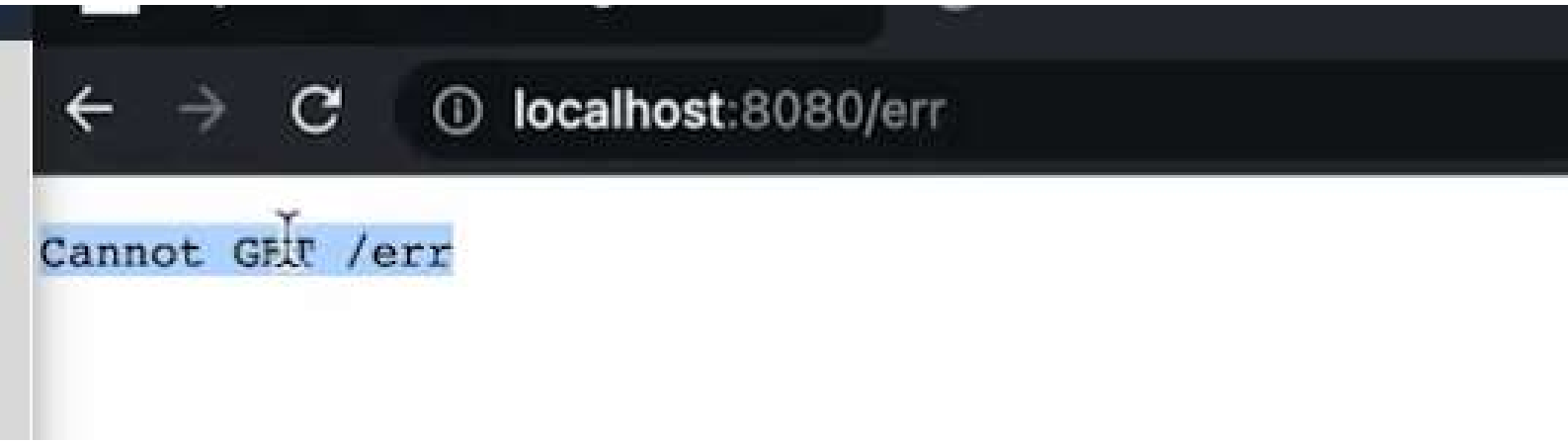
```
21      res.send("this is a random page");
22    });
23
24    app.get("/err", (req, res) => {
25      abcd = abcd;
26    });
27
28    app.use((err, req, res, next) => {
29      console.log("------ ERROR --------");
30    });
31
32    app.use((req, res) => {
33      res.status(404).send("Page not found!");
34    });
35
36    app.listen(8080, () => {
37      console.log("server listening to port 8080");
38    });
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
shradhakhapra@Shradhas-MacBook-Air Middlewares % nodemon app.js
[nodemon] 3.0.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node app.js`
server listening to port 8080
------ ERROR --------
```

```
app.get("/err", (req, res) => {
  abcd = abcd;
});

app.use((err, req, res, next) => {
  console.log("------ ERROR --------");
  next();
});
```


localhost:8080/err
Cannot GET /err

```
19
20  app.get("/random", (req, res) => {
21    res.send("this is a random page");
22  });
23
24  app.get("/err", (req, res) => {
25    abcd = abcd;
26  });
27
28  app.use((err, req, res, next) => {
29    console.log("------ ERROR --------");
30    next(err);
31  });
```

```
ReferenceError: abcd is not defined
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/app.js:25:3
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/route.js:144:13)
    at Route.dispatch (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/route.js:114:3)
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:284:15
    at Function.process_params (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:346:12)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:280:10)
    at expressInit (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/middleware/init.js:40:5)
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
```

```
27
28  app.use((err, req, res, next) => {
29    console.log("------ ERROR --------");
30    next(err);
31  });
32
33  app.use((err, req, res, next) => {
34    console.log("------ ERROR2 Middleware --------");
35    next(err);
36  });
37
```

```
ReferenceError: abcd is not defined
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/app.js:25:3
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/route.js:144:13)
    at Route.dispatch (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/route.js:114:3)
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:284:15
    at Function.process_params (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:346:12)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/index.js:280:10)
    at expressInit (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/middleware/init.js:40:5)
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/layer.js:95:5)
```

```
server listening to port 8080
------ ERROR --------
------ ERROR2 Middleware --------
ReferenceError: abcd is not defined
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/app.js:25:3
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Ba
s/express/lib/router/layer.js:95:5)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modu
s:144:13)
    at Route.dispatch (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/
er/route.js:114:3)
    at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Ba
s/express/lib/router/layer.js:95:5)
    at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/exp
15
    at Function.process_params (/Users/shradhakhapra/WebClassroom/Backend/Mid
/lib/router/index.js:346:12)
    at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modu
s:280:10)
    at expressInit (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/nod
```

Error Handlers

Custom

Error handling Middleware

snehagupta7385@gmail.com

```
app.use((err, req, res, next) => {
  console.log("----- ERROR ------");
  next(err);
});
```

Error Handlers

next()

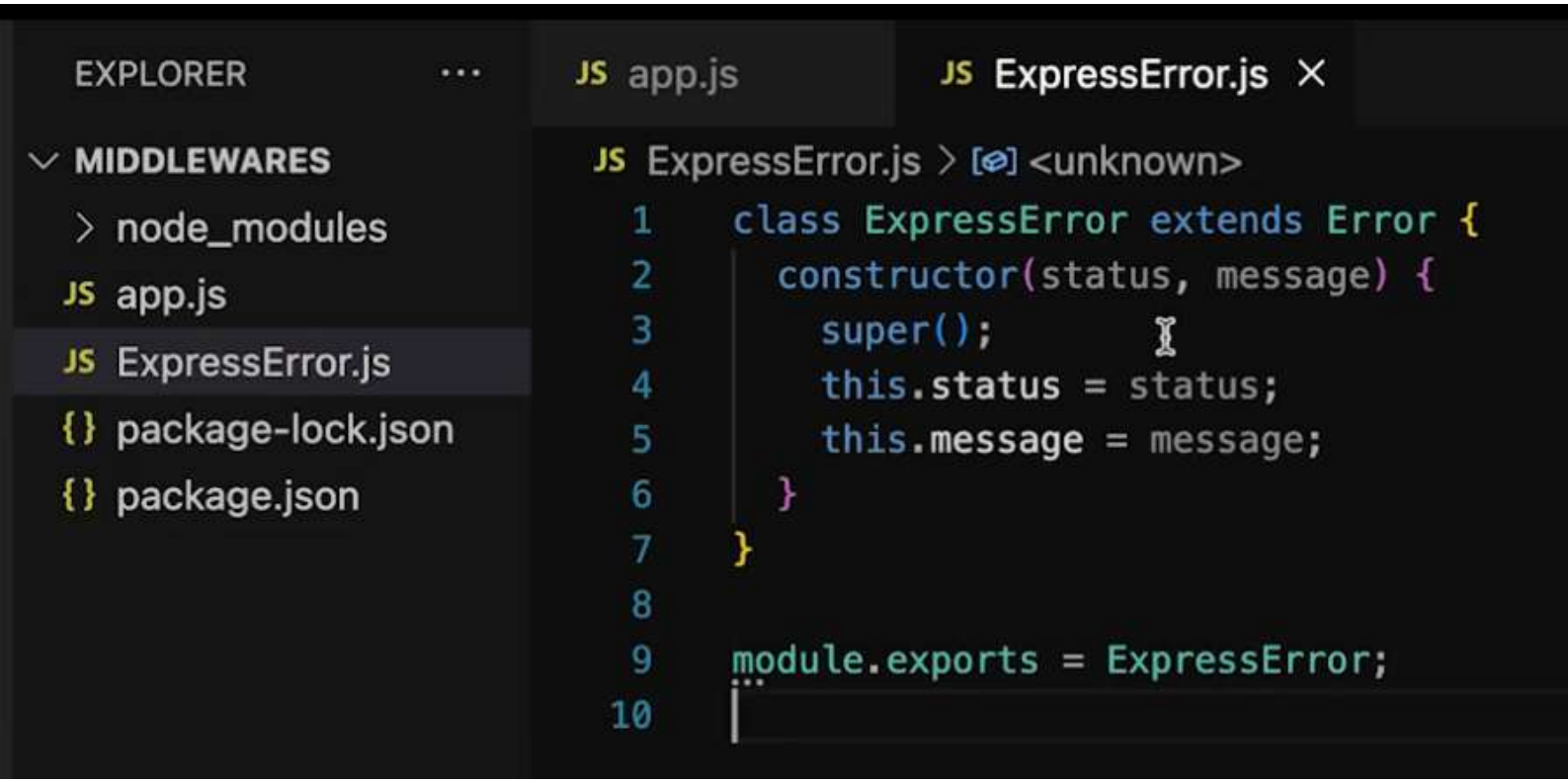
next(err)

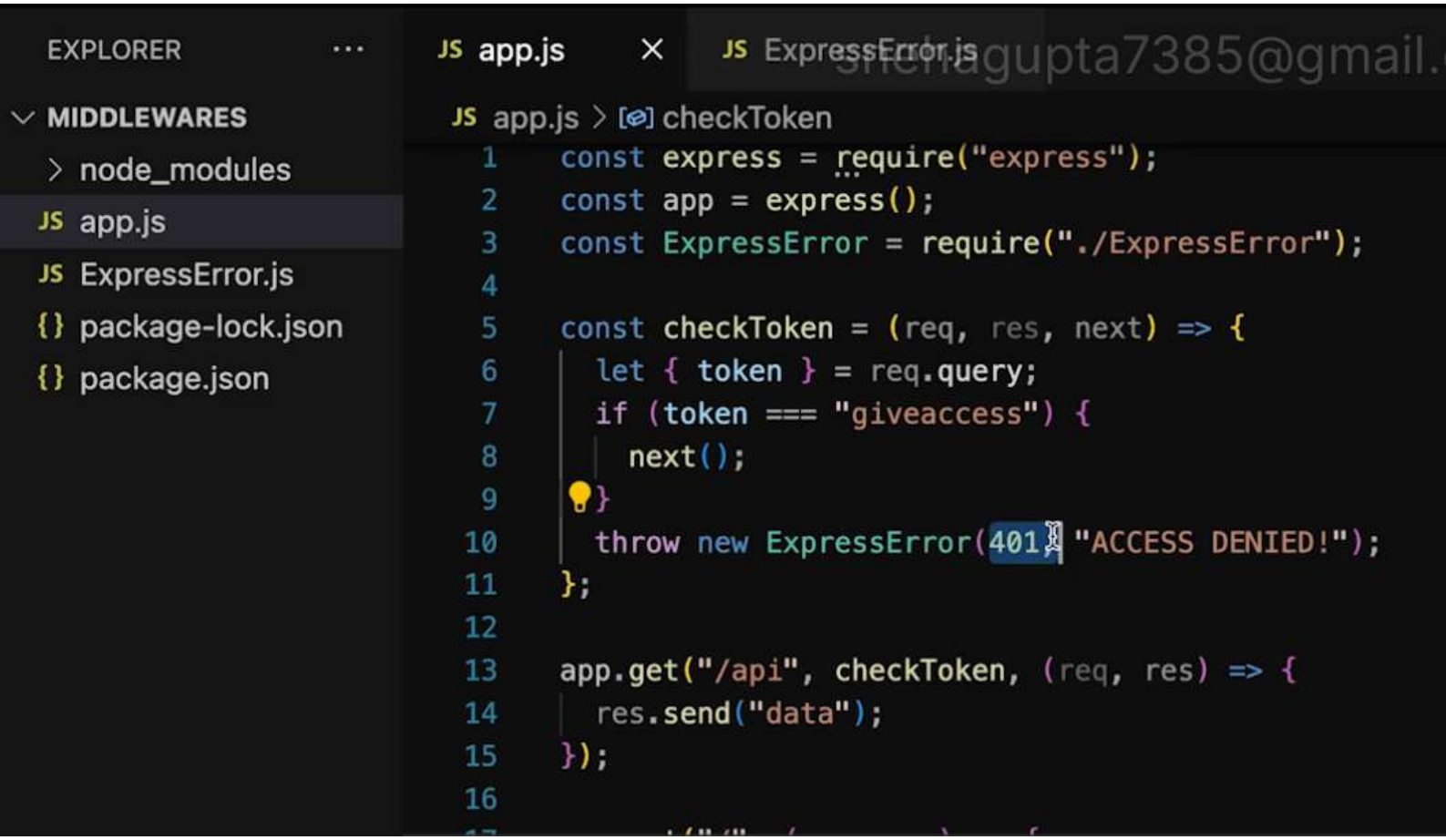
Custom

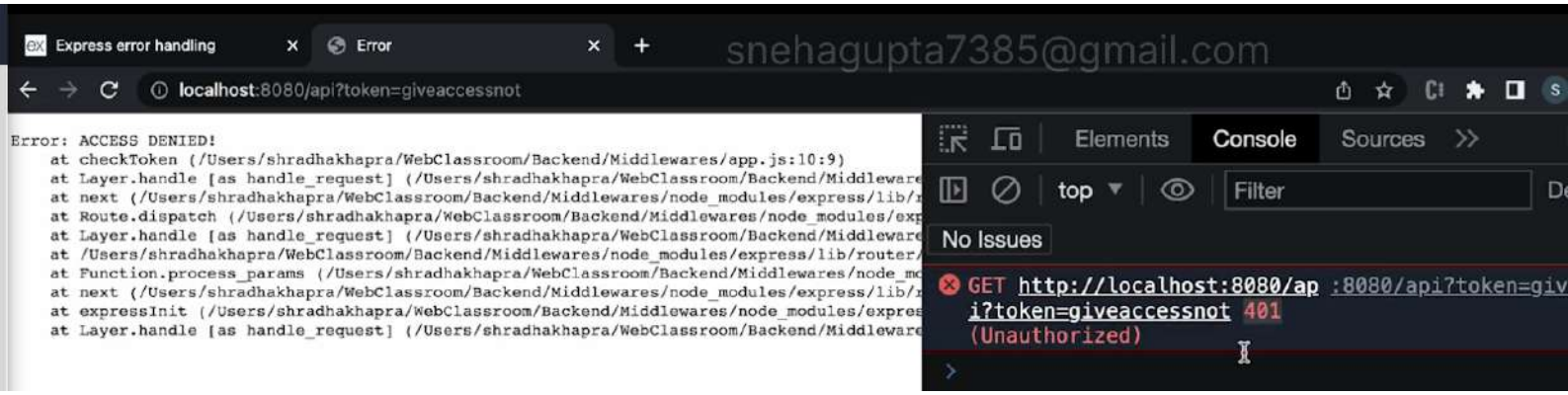
Error handling Middleware

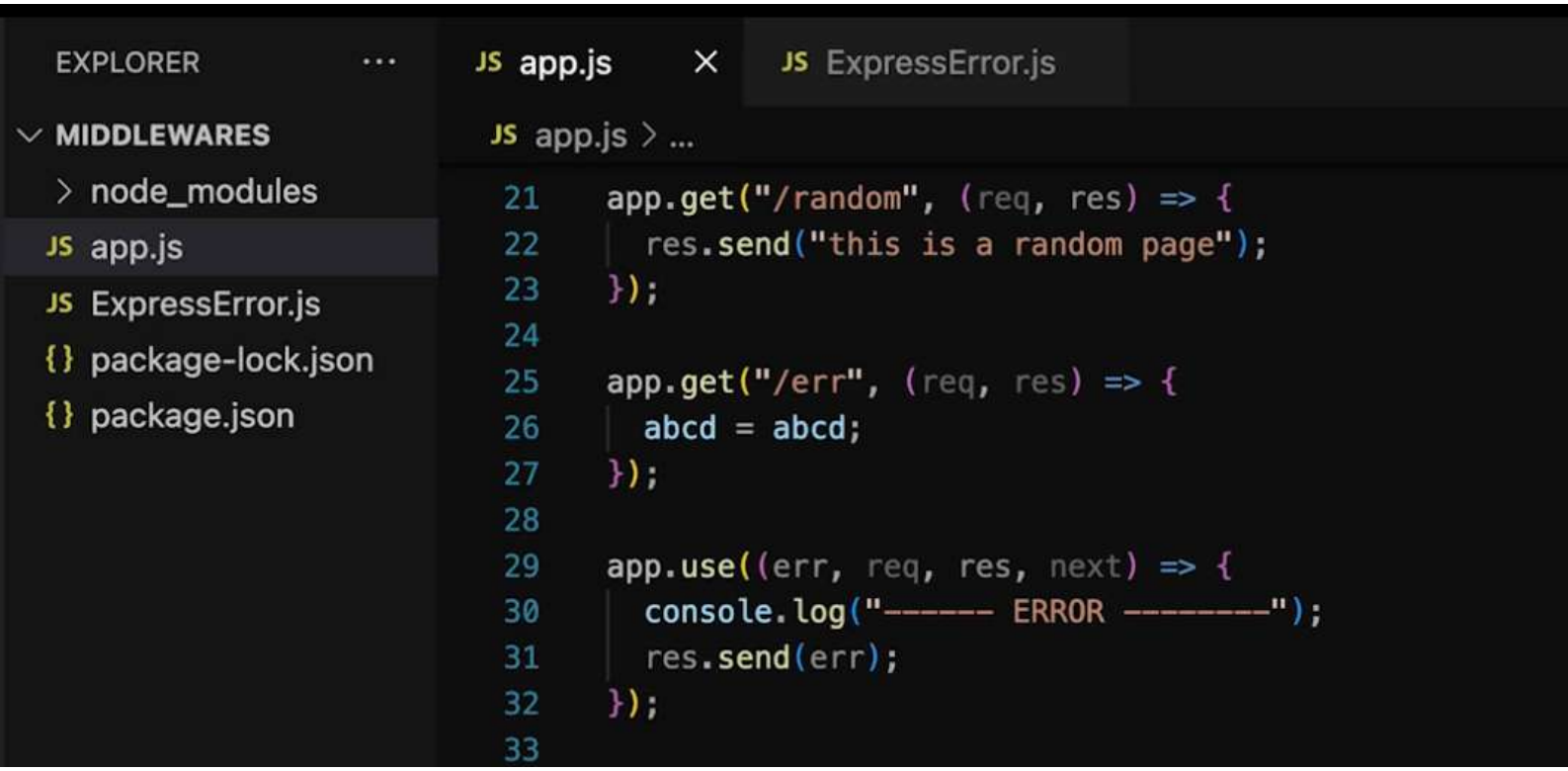
```
app.use((err, req, res, next) => {
  console.log("---- ERROR ------");
  next(err);
});
```

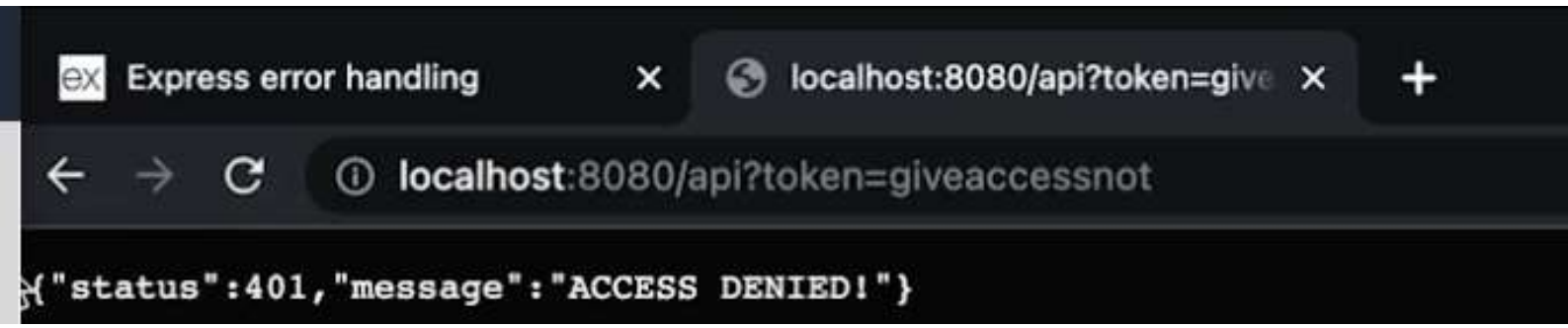
snehagund...@g...


EXPLORER
app.js
ExpressError.js
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
ExpressError.js > <unknown>
class ExpressError extends Error {
constructor(status, message) {
super();
this.status = status;
this.message = message;
}
}
module.exports = ExpressError;


EXPLORER
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js
ExpressError.js
app.js > checkToken
const express = require("express");
const app = express();
const ExpressError = require("./ExpressError");
const checkToken = (req, res, next) => {
let { token } = req.query;
if (token === "giveaccess") {
next();
}
throw new ExpressError(401, "ACCESS DENIED!");
};
app.get("/api", checkToken, (req, res) => {
res.send("data");
});


Express error handling
Error
snehagupta7385@gmail.com
localhost:8080/api?token=giveaccessnot
Error: ACCESS DENIED!
at checkToken (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/app.js:10:9)
at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewar
at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/r
at Route.dispatch (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/exp
at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewar
at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/
at Function.process_params (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_mo
at next (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/r
at expressInit (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/expres
at Layer.handle [as handle_request] (/Users/shradhakhapra/WebClassroom/Backend/Middlewar
Elements
Console
Sources
top
Filter
No Issues
GET http://localhost:8080/ap :8080/api?token=giv
i?token=giveaccessnot 401
(Unauthorized)

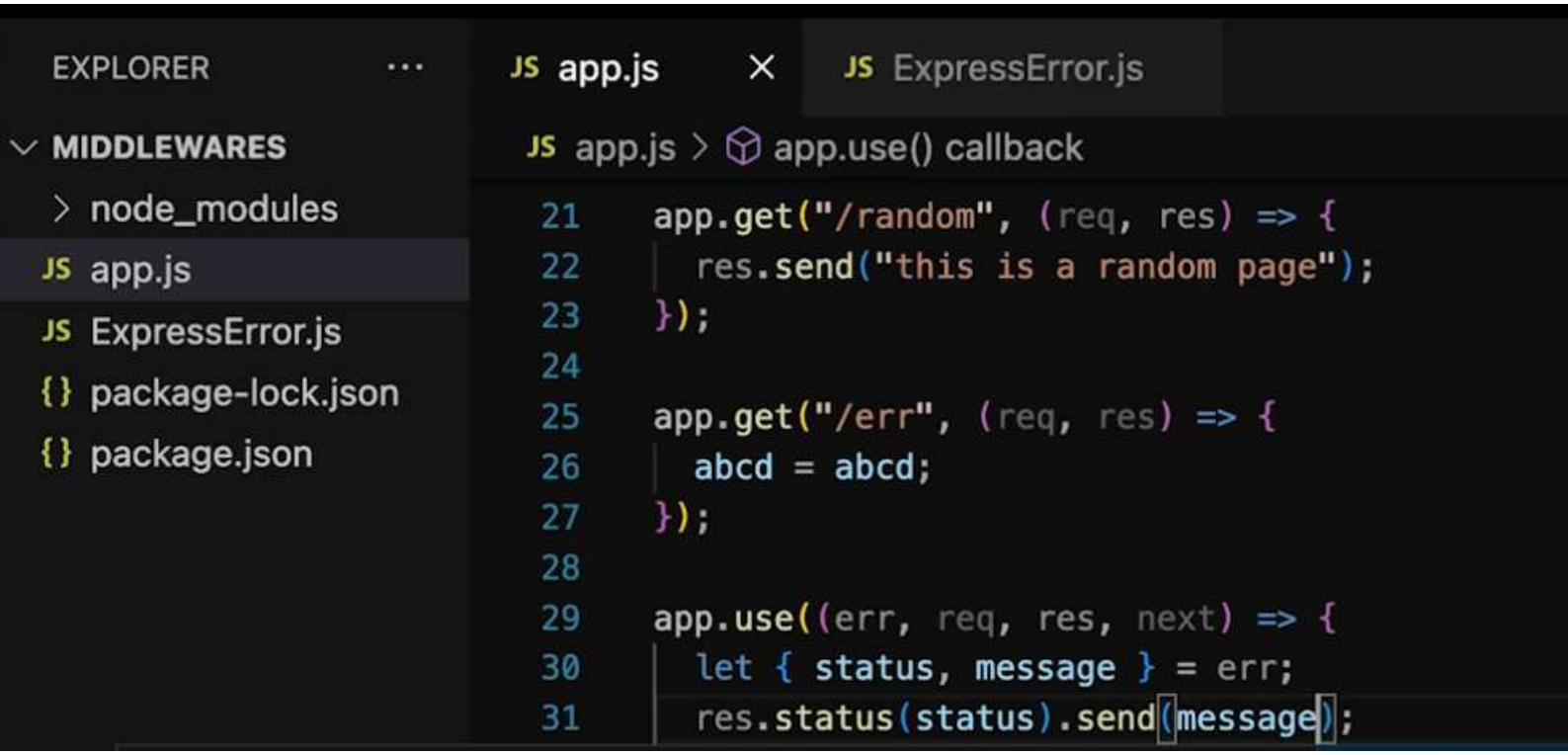

EXPLORER
app.js
ExpressError.js
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js > ...
app.get("/random", (req, res) => {
res.send("this is a random page");
});
app.get("/err", (req, res) => {
abcd = abcd;
});
app.use((err, req, res, next) => {
console.log("------ ERROR --------");
res.send(err);
});

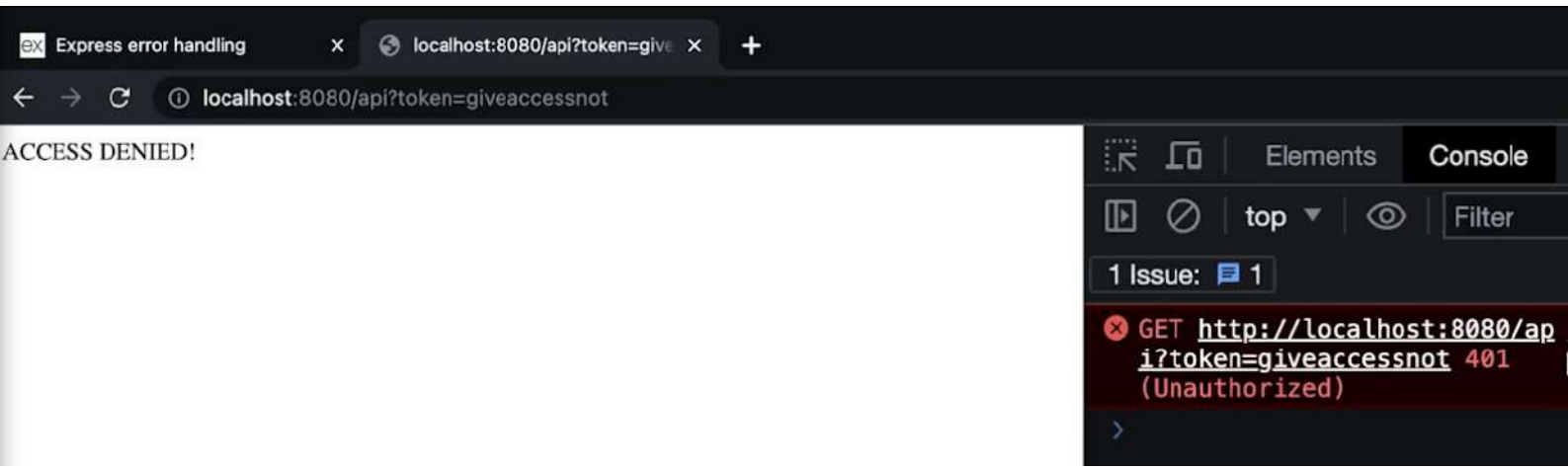

Express error handling
localhost:8080/api?token=give
localhost:8080/api?token=giveaccessnot
{"status":401,"message":"ACCESS DENIED!"}

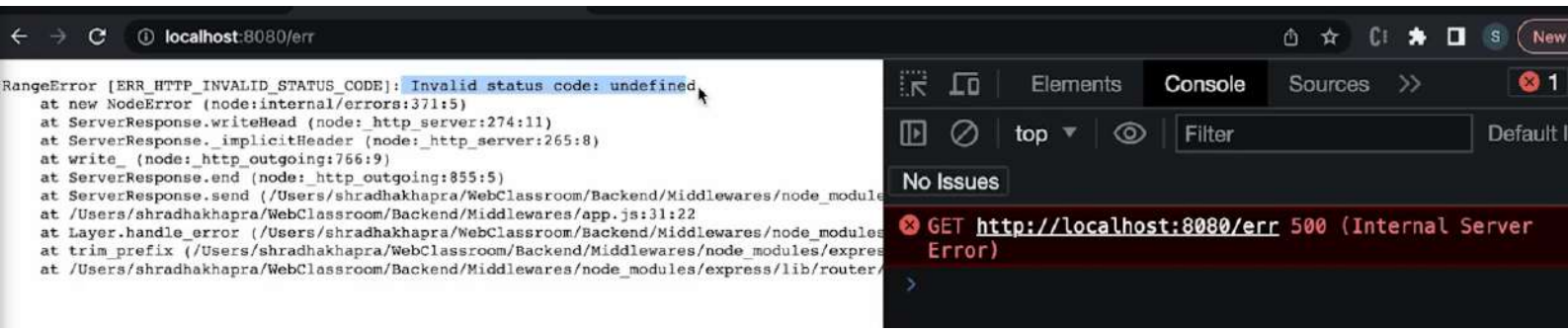
Error Class

Custom

```
app.use((err, req, res, next) => {
  let { status = 500, message = "SOME ERROR" } = err;
  res.status(status).send(message);
});
```


EXPLORER
app.js
ExpressError.js
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js > app.use() callback
app.get("/random", (req, res) => {
res.send("this is a random page");
});
app.get("/err", (req, res) => {
abcd = abcd;
});
app.use((err, req, res, next) => {
let { status, message } = err;
res.status(status).send(message);


Express error handling
localhost:8080/api?token=give
localhost:8080/api?token=giveaccessnot
ACCESS DENIED!
Elements
Console
top
Filter
1 Issue: 1
GET http://localhost:8080/api?token=giveaccessnot 401 (Unauthorized)


localhost:8080/err
RangeError [ERR_HTTP_INVALID_STATUS_CODE]: Invalid status code: undefined
at new NodeError (node:internal/errors:371:5)
at ServerResponse.writeHead (node:_http_server:274:11)
at ServerResponse._implicitHeader (node:_http_server:265:8)
at write_ (node:_http_outgoing:766:9)
at ServerResponse.end (node:_http_outgoing:855:5)
at ServerResponse.send (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_module
at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/app.js:31:22
at Layer.handle_error (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules
at trim_prefix (/Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/expres
at /Users/shradhakhapra/WebClassroom/Backend/Middlewares/node_modules/express/lib/router/
Elements
Console
Sources
top
Filter
No Issues
GET http://localhost:8080/err 500 (Internal Server Error)

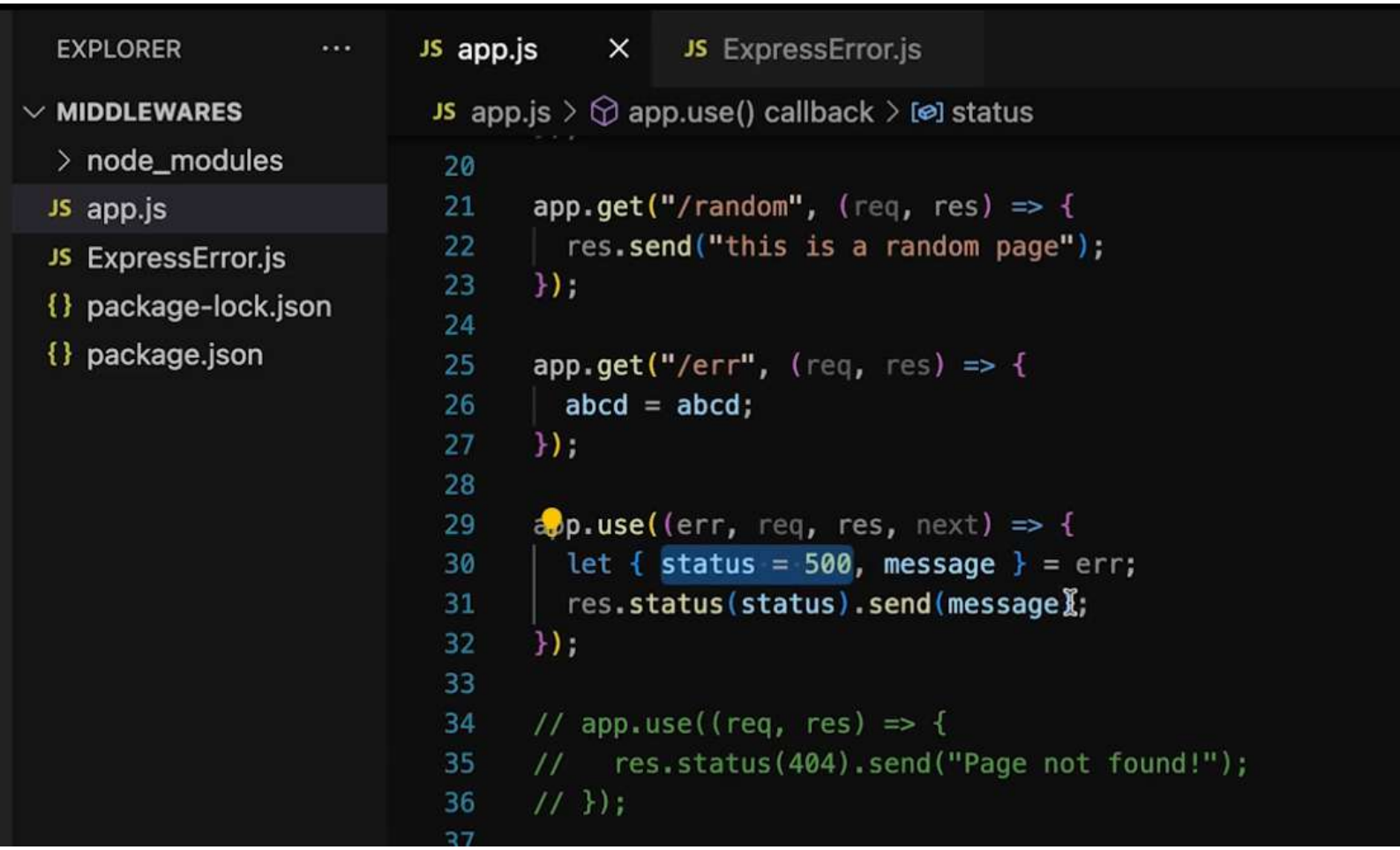
express error

Error Class

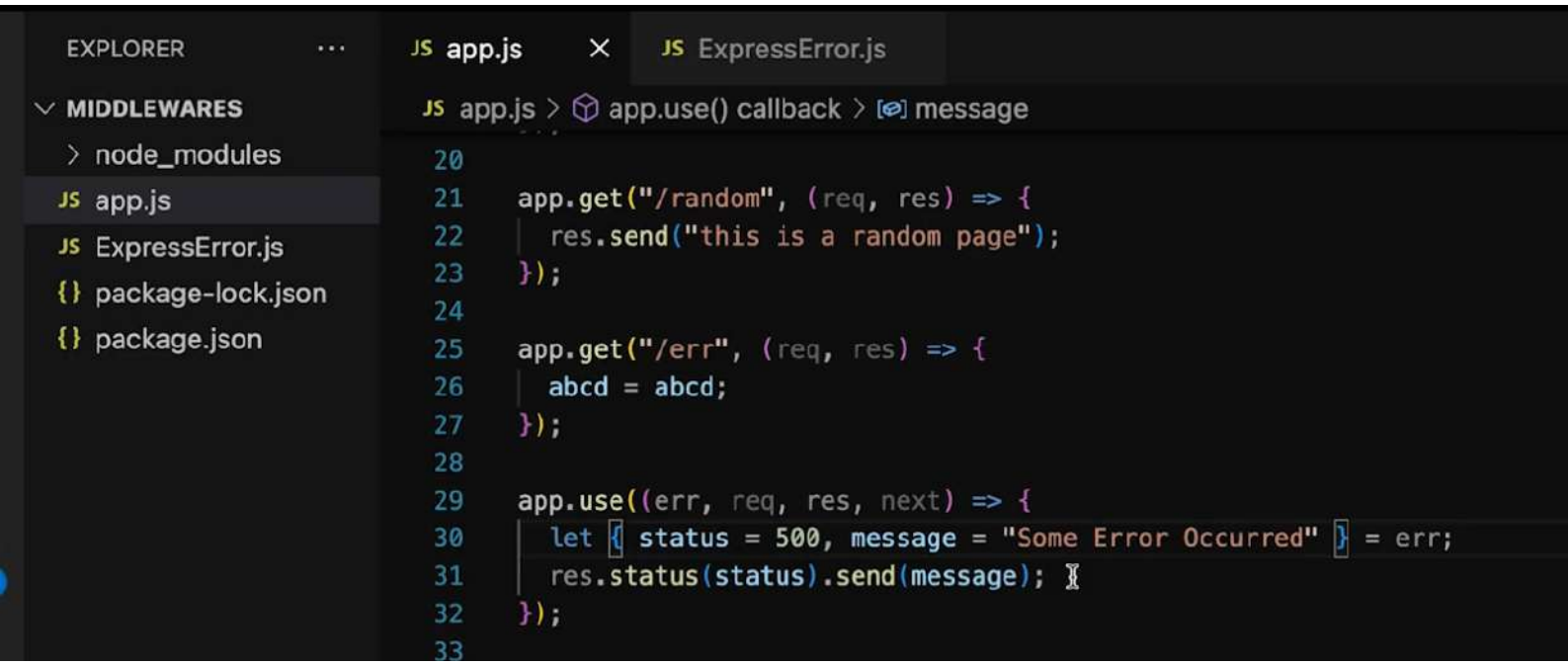
Custom

```
app.use((err, req, res, next) => {
  let { status = 500, message = "SOME ERROR" } = err;
  res.status(status).send(message);
});
```

Err object → valid status code

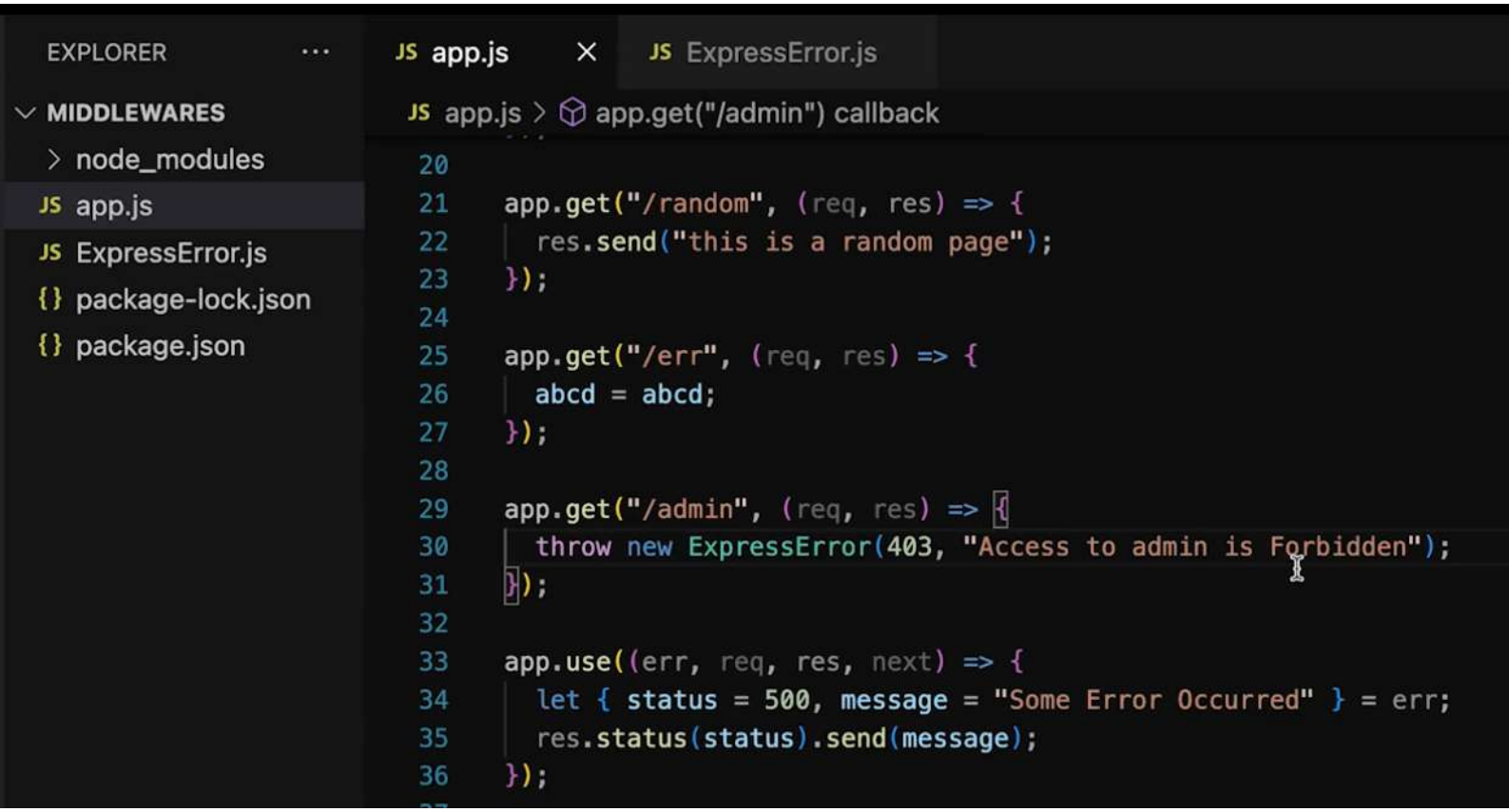

EXPLORER
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js
ExpressError.js
app.js > app.use() callback > status
app.get("/random", (req, res) => {
res.send("this is a random page");
});
app.get("/err", (req, res) => {
abcd = abcd;
});
app.use((err, req, res, next) => {
let { status = 500, message } = err;
res.status(status).send(message);
});
// app.use((req, res) => {
// res.status(404).send("Page not found!");
// });

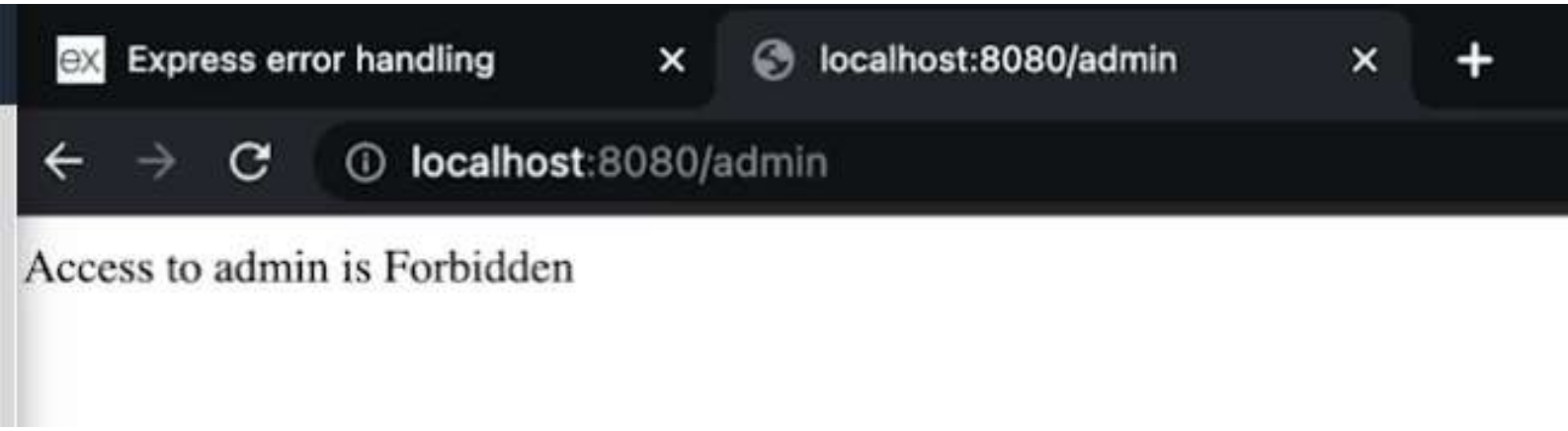
Express error handling
localhost:8080/err
snehagupta7385@gmail.com
localhost:8080/err
abcd is not defined
719px × 821px
Elements
Console
Sources
top
Filter
1 Issue: 1
GET http://localhost:8080/err 500 (Internal Server Error)


EXPLORER
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js
ExpressError.js
app.js > app.use() callback > message
20
21 app.get("/random", (req, res) => {
22 res.send("this is a random page");
23 });
24
25 app.get("/err", (req, res) => {
26 abcd = abcd;
27 });
28
29 app.use((err, req, res, next) => {
30 let { status = 500, message = "Some Error Occurred" } = err;
31 res.status(status).send(message);
32 });
33

Error Class

Create an admin route & send an error with a 403 status code.


EXPLORER
app.js
ExpressError.js
MIDDLEWARES
node_modules
app.js
ExpressError.js
package-lock.json
package.json
app.js > app.get("/admin") callback
app.get("/random", (req, res) => {
res.send("this is a random page");
});
app.get("/err", (req, res) => {
abcd = abcd;
});
app.get("/admin", (req, res) => {
throw new ExpressError(403, "Access to admin is Forbidden");
});
app.use((err, req, res, next) => {
let { status = 500, message = "Some Error Occurred" } = err;
res.status(status).send(message);
});


Express error handling
localhost:8080/admin
localhost:8080/admin
Access to admin is Forbidden