



Handling Async Errors

next()



```
//NEW - Show Route
app.get("/chats/:id", async (req, res, next) => {
  let { id } = req.params;
  let chat = await Chat.findById(id);
  if (!chat) {
    return next(new ExpressError(404, "Chat not Found or Deleted"));
  }
  res.render("edit.ejs", { chat });
});
```

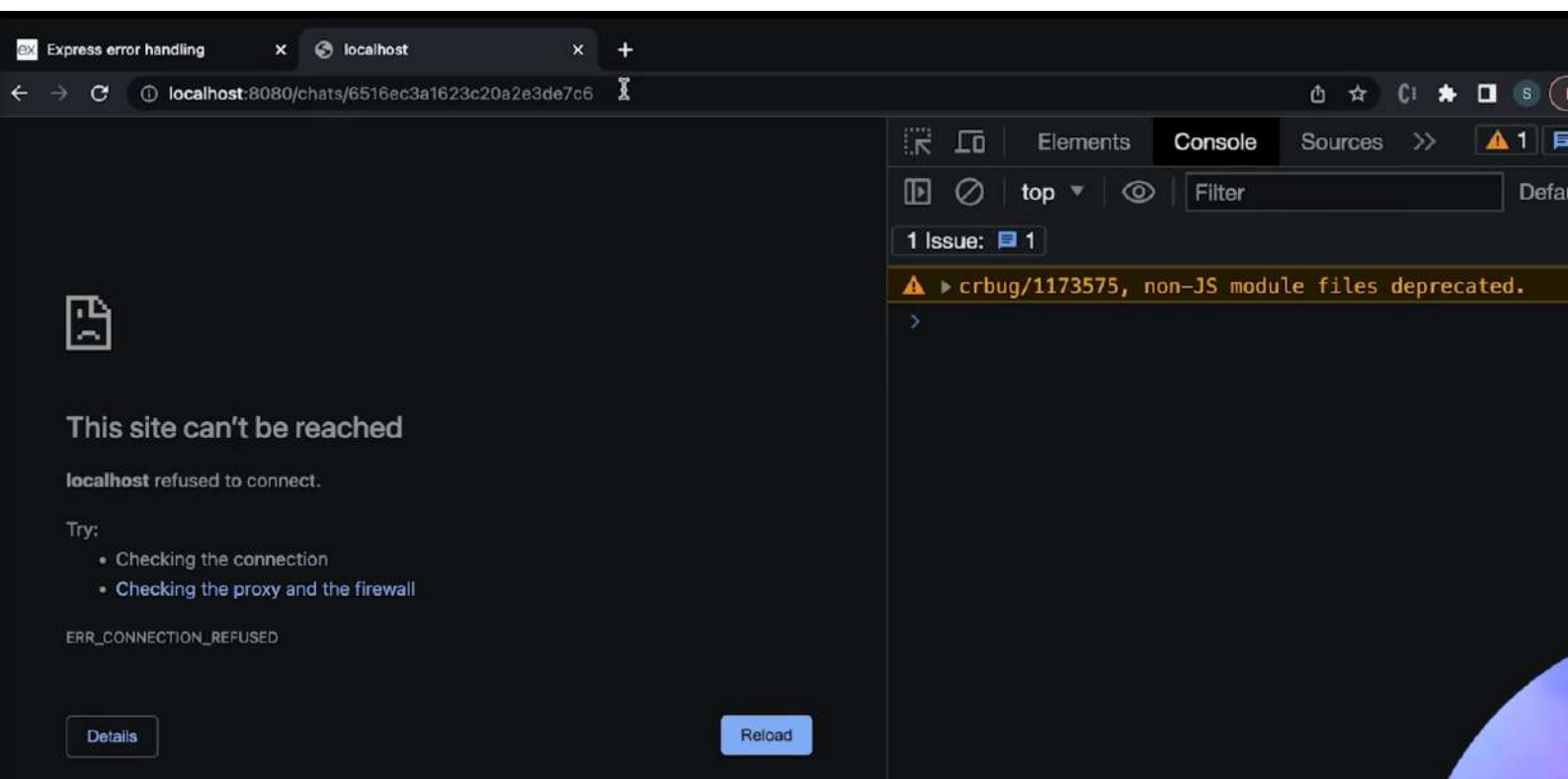
JS index.js × JS ExpressError.js

JS index.js >  app.get("/chats/:id") callback

```
48
49     await newChat.save();
50     res.redirect("/chats");
51 });
52
53 //NEW - Show Route
54 app.get("/chats/:id", async (req, res, next) => {
55     let { id } = req.params;
56     let chat = await Chat.findById(id);
57     if (!chat) {
58          throw new ExpressError(404, "Chat not found");
59     }
60     res.render("edit.ejs", { chat });
61 });
62
63 //Edit Route
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

 zsh  +



```
[nodemon] restarting due to changes...
```

```
[nodemon] starting `node index.js`
```

```
app is listening
```

```
connection successful
```

```
/Users/shradhakhapra/WebClassroom/Mongo/Project/index.js:58
```

```
    throw new ExpressError(404, "Chat not found");
```

```
    ^
```

```
ExpressError: Chat not found
```

```
    at /Users/shradhakhapra/WebClassroom/Mongo/Project/index.js:58:11
```

```
    at processTicksAndRejections (node:internal/process/task_queues:96:5) {
```

```
  status: 404
```

```
}
```

```
[nodemon] app crashed - waiting for file changes before starting...
```

JS index.js X JS ExpressError.js

JS index.js >  app.post("/chats") callback

```
36
37 //Create Route
38 app.post("/chats", async (req, res, next) => {
39   try {
40     let { from, to, message } = req.body;
41     let newChat = new Chat({
42       from: from,
43       to: to,
44       message: message,
45       created_at: new Date(),
46     });
47
48     await newChat.save();
49     res.redirect("/chats");
50   } catch (err) {
51     next(err);
52   }
53 });
54
55 //NEW - Show Route
56 app.get("/chats/:id", async (req, res, next) => {
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
path: 'to',
value: '',
reason: undefined,
[Symbol(mongoose:validatorError)]: true
```

mail.com

JS index.js × JS ExpressError.js

JS index.js > app.get("/chats/:id") callback

```
55     next(err);
56   }
57 });
58
59 //NEW - Show Route
60 app.get("/chats/:id", async (req, res, next) => {
61   try {
62     let { id } = req.params;
63     let chat = await Chat.findById(id);
64     if (!chat) {
65       next(new ExpressError(500, "Chat not found"));
66     }
67     res.render("edit.ejs", { chat });
68   } catch (err) {
69     next(err);
70   }
71 });
```

PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

```
    [Symbol(mongoose#Model)]: true
  }
}
```

```
[nodemon] app crashed - waiting for file changes before starting...
```

```
^C%
```

```
○ shradhakhapra@Shradhas-MacBook-Air Project % nodemon index.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 index.js`
```

using wrapAsync


- 1) normal errors ✓
- 2) async → Express Error
- 3) try-catch


```
function wrapAsync(fn) {  
  return function(req, res, next) {  
    fn(req, res, next)  
  }  
}
```

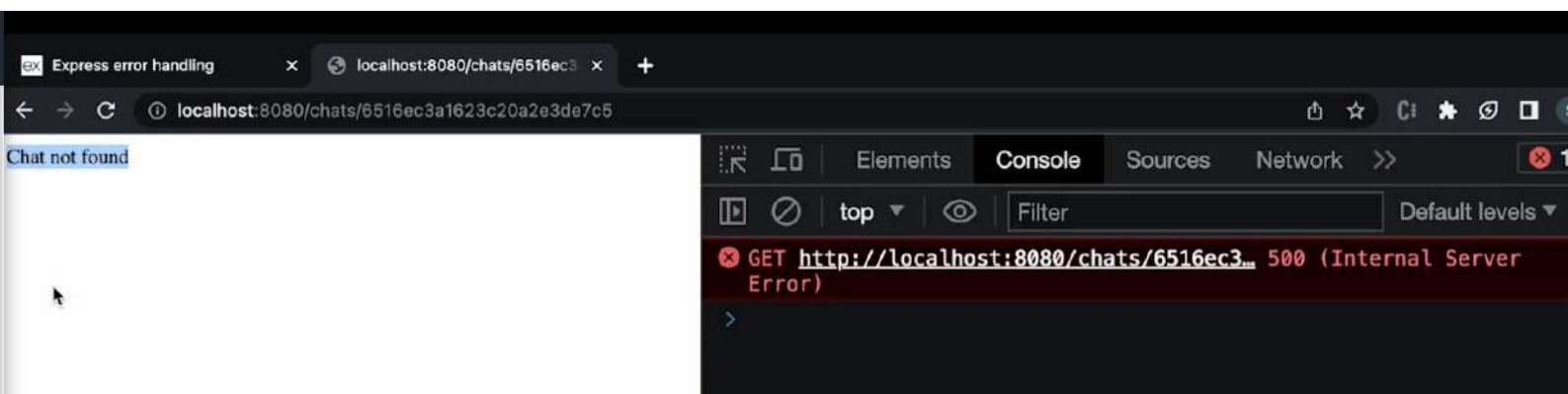

function wrapAsync (fn) {
 return function (req, res, next) {
 fn(req, res, next).catch(err)
 }
}

JS index.js

JS ExpressError.js

JS index.js >  asyncWrap() callback

```
57   });
58
59   function asyncWrap(fn) {
60     return function (req, res, next) {
61       fn(req, res, next).catch((err) => next(err));
62     };
63   }
64
65   //NEW - Show Route
66   app.get("/chats/:id", asyncWrap(async (req, res, next) => {
67     let { id } = req.params;
68     let chat = await Chat.findById(id);
69     if (!chat) {
70       next(new ExpressError(500, "Chat not found"));
71     }
72     res.render("edit.ejs", { chat });
73   }));
74
75   //Edit Route
```



using wrapAsync

simple

complex

- 1) normal errors ✓
- 2) async → Express Error
- 3) try-catch (bulky)
- 4) async wrap → wrap the callback

snehagupta7385@gmail.com

Mongoose Errors

```
const handleValidationError = (err) => {  
  console.log("Validation error occurred");  
  return err;  
};  
  
app.use((err, req, res, next) => {  
  console.log(err.name);  
  if (err.name === "ValidationError") {  
    err = handleValidationError(err);  
  }  
  next(err);  
});
```

JS index.js × JS ExpressError.js

JS index.js > app.use() callback

```
114 );
115
116 app.get("/", (req, res) => {
117   res.send("working root");
118 });
119
120 app.use((err, req, res, next) => {
121   console.log(err.name);
122   if (err.name === "ValidationError") {
123     console.log("This was a Validation error. Please follow rules");
124   }
125   next(err);
126 });
127
128 //Error Handling Middleware
129 app.use((err, req, res, next) => {
130   let { status = 500, message = "Some Error Occurred" } = err;
131   res.status(status).send(message);
132 });
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

> zsh ⚠

```
on.js:609:3)
    at ServerResponse.render (/Users/shradhakhapra/WebClassroom/Mongo/Project/node_modules/express/lib/response.js:1039:7)
    at /Users/shradhakhapra/WebClassroom/Mongo/Project/index.js:73:9
    at processTicksAndRejections (node:internal/process/task_queues:96:5)
ValidationError
CastError
[nodemon] restarting due to changes...
[nodemon] starting `node index.js`
```


EXPLORER

PROJECT

models

chat.js

node_modules

public

views

edit.ejs

index.ejs

new.ejs

ExpressError.js

index.js

init.js

package-lock.json

package.json

OUTLINE

TIMELINE

JS index.js

JS ExpressError.js

JS index.js > app.use() callback

114);

115

116 app.get("/", (req, res) => {

117 | res.send("working root");

118 });

119

120 app.use((err, req, res, next) => {

121 | console.log(err.name);

122 | if (err.name === "ValidationError") {

123 | | console.log("This was a Validation error. Please follow rules");

124 | }

125 | next(err);

126 | });

127

128 //Error Handling Middleware

129 app.use((err, req, res, next) => {

130 | let { status = 500, message = "Some Error Occurred" } = err;

131 | res.status(status).send(message);

132 | });

PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

zsh

ponse.js:1039:7)

at /Users/shradhakhapra/WebClassroom/Mongo/Project/index.js:73:9

at processTicksAndRejections (node:internal/process/task_queues:96:5)

ValidationError

CastError

[nodemon] restarting due to changes...

[nodemon] starting `node index.js`

app is listening

connection successful

ValidationError

This was a Validation error. Please follow rules

Ln 125, Col 13

Spaces: 2

UTF-8


LF

{}

JavaScript

Go

JS index.js × JS ExpressError.js

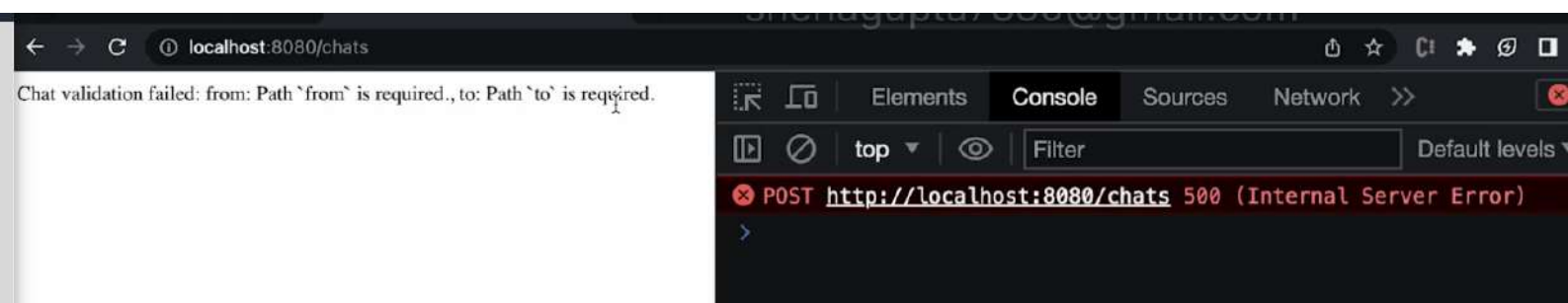
JS index.js >  app.use() callback

```
117     res.send('working route');  
118   });  
119  
120   const handleValidationError = (err) => {  
121     console.log("This was a Validation error. Please follow rules");  
122     console.dir(err);  
123     return err;  
124   };  
125  
126   app.use((err, req, res, next) => {  
127     console.log(err.name);  
128     if (err.name === "ValidationError") {  
129       err = handleValidationError(err);  
130     }  
131     next(err);  
132   });  
133  
134   //Error Handling Middleware  
135   app.use((err, req, res, next) => {
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

 zsh

○ shradhakhapra@Shradhas-MacBook-Air Project % nodemon index.js



```
[nodemon] restarting due to changes...
shradhakhapra@Shradhas-MacBook-Air Project % nodemon index.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 index.js`
app is listening
connection successful
ValidationError
This was a Validation error. Please follow rules
ValidationError: Chat validation failed: from: Path `from` is required., to: Pat
    at model.Document.invalidate (/Users/shradhakhapra/WebClassroom/Mongo/Projec
b/document.js:3162:32)
    at /Users/shradhakhapra/WebClassroom/Mongo/Project/node_modules/mongoose/lib
    at /Users/shradhakhapra/WebClassroom/Mongo/Project/node_modules/mongoose/lib
    at processTicksAndRejections (node:internal/process/task_queues:78:11) {
  errors: {
    from: ValidatorError: Path `from` is required.
```

JS index.js × JS ExpressError.js

JS index.js > [🔍] handleValidationErr

```
118   });  
119  
120   const handleValidationErr = (err) => {  
121     console.log("This was a Validation error. Please follow rules");  
122     console.dir(err.message);  
123     return err;  
124   };  
125  
126   app.use((err, req, res, next) => {  
127     console.log(err.name);  
128     if (err.name === "ValidationError") {  
129       err = handleValidationErr(err);  
130     }  
131     next(err);
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

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○ shradhakhapra@Shradhas-MacBook-Air Project % nodemon index.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 index.js`

app is listening

connection successful

ValidationError

This was a Validation error. Please follow rules

'Chat validation failed: from: Path `from` is required., to: Path `to` is required'

I