Static Files, Middleware

CS 390 – Web Application Development

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WIWYT – Static Files

- Express is pretty incredible: it allows us to develop full-fledged APIs like they're Hello World projects.

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- Serving static files is an essential component to a web API; understanding it is useful to help us build better software.

WIWYT – Middleware

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- Express works fundamentally as an abstraction layer over the traditional API implementation. It's a big reason why it's so easy to work with.
- Middleware allows us fine-grained control over the routing process within the API, enabling us to extend the Express functionality depending on the use-case.

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Static Files – General Idea, Syntax

The syntax for serving a static file is straightforward:

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// ... some code
app.use('/location', express.static('path/to/dir'))
// ... more code
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The directory is crucial to **containerize** file serving!

Let's Build a File Server!

If you can view this screen, I am making a mistake.

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Middleware – Understanding Hooks

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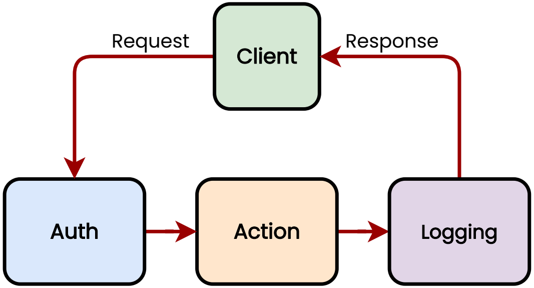

Middleware – Syntax

Let's break down some sample code:

```
// ... some code
app.get('/', function, (req, res) => {
                    res.send('Hello from the Express
                        API!!');
           })

function f(req, res, next) {
         console.log('f');
         next();
}
// ... some code
```

Middleware – Passing Values Between Functions

Passing data is incredibly important; it's what allows functions to communicate.

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Passing data is incredibly important; it's what allows functions to communicate. Here's how we do it:

```
// ... some code
app.get('/', function, (req, res) => {
                    console.log(`${req.f}`);
                    res.send('Hello from the Express
                        API!!');
           })

function f(req, res, next) {
         console.log('f');
         req.f = true;
         next();
}
// ... some code
```

Middleware – Some Nuance

There's **two** pitfalls to avoid. Firstly:

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Secondly:

- Middleware is called in order of declaration.
- Don't accidentally call authentication after the action!

Let's Implement Server Logging!

If you can view this screen, I am making a mistake (again).

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On Wednesday –

We'll cover working with Forms!

Also, sending, and understanding the difference between from types, like GET and POST.

Homework – Build an API!

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- Password-protected by argument (doesn't need to be secure; naive implementation is OK).
- Add a fun item please :)

Starter code, and the announcement with full details will be posted shortly!

Thank you!

Have an awesome rest of your day!

Slides: `https://www.cs390.dev/slides/static,middleware.pdf`

If anything's incorrect or unclear, please ping: `jsetpal@purdue.edu`
I'll patch it ASAP.