Building a future-proof and fully modular React LMS frontend

Matej Grozdanović // Appsembler

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About me

UX / UI / Frontend at **Appsembler**

3 years working with Open edX

Tahoe frontend and theming engine, **Figures**, ...

Carpentry

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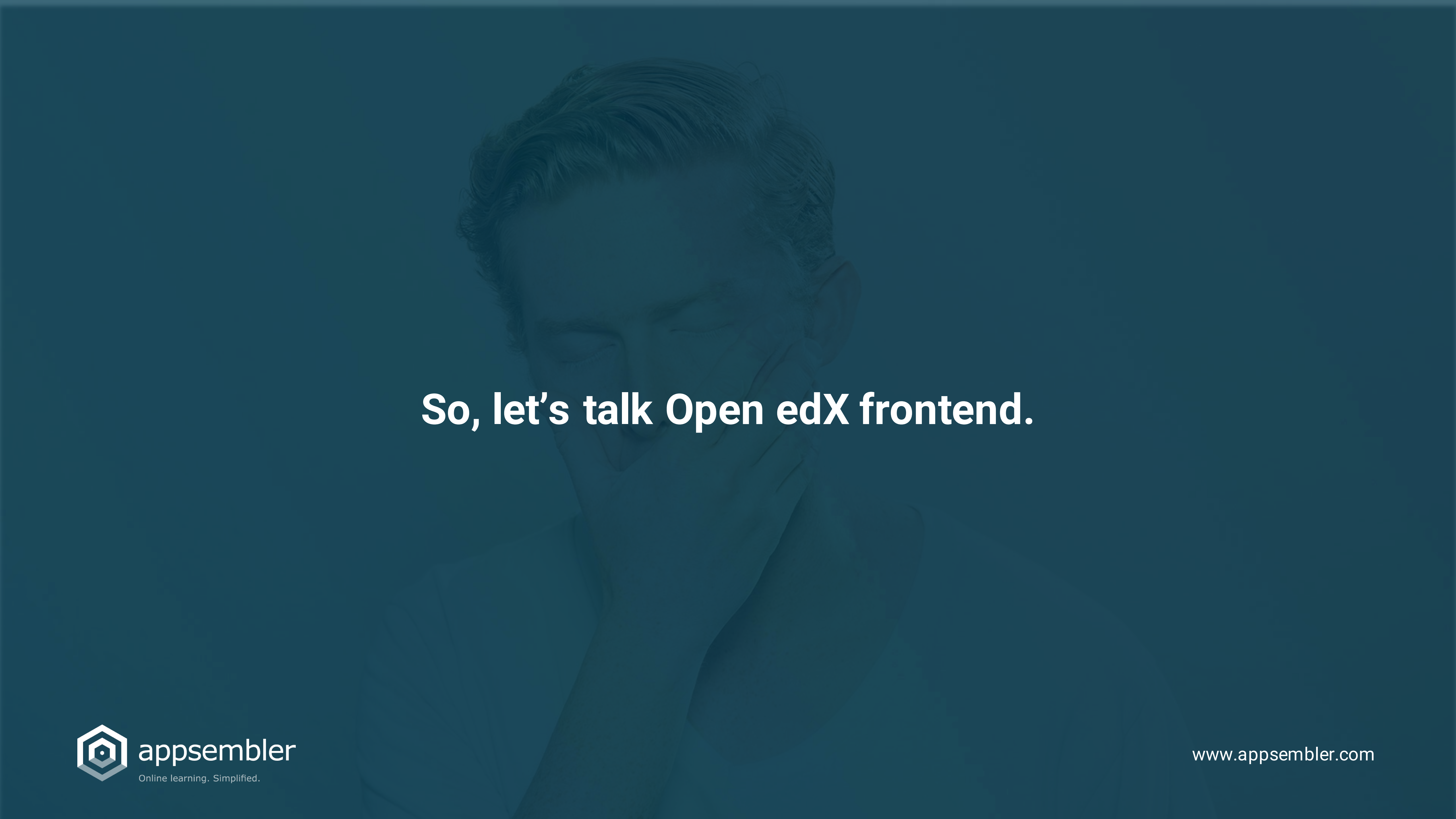
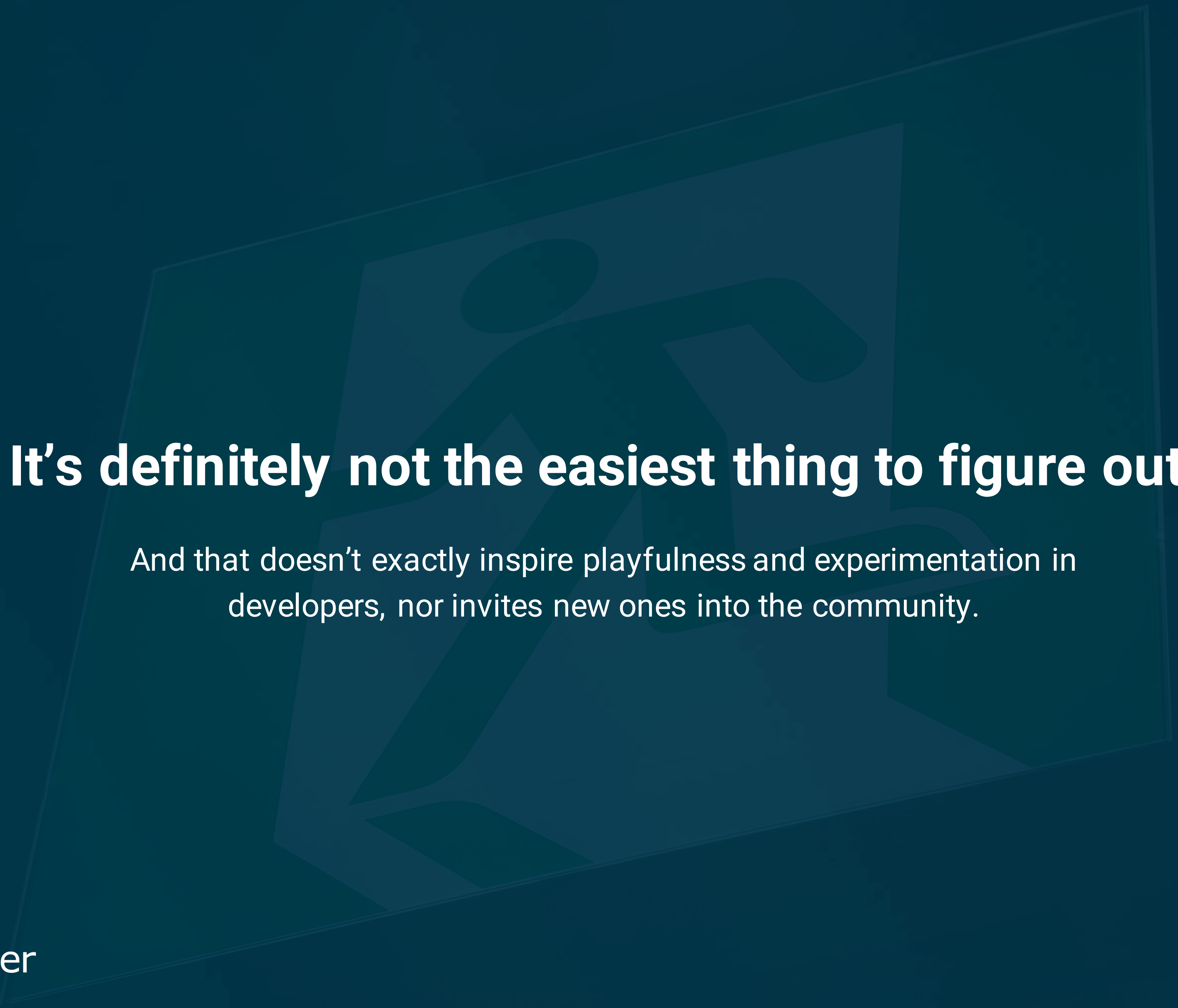


So, let’s talk Open edX frontend.



It’s definitely not the easiest thing to figure out.

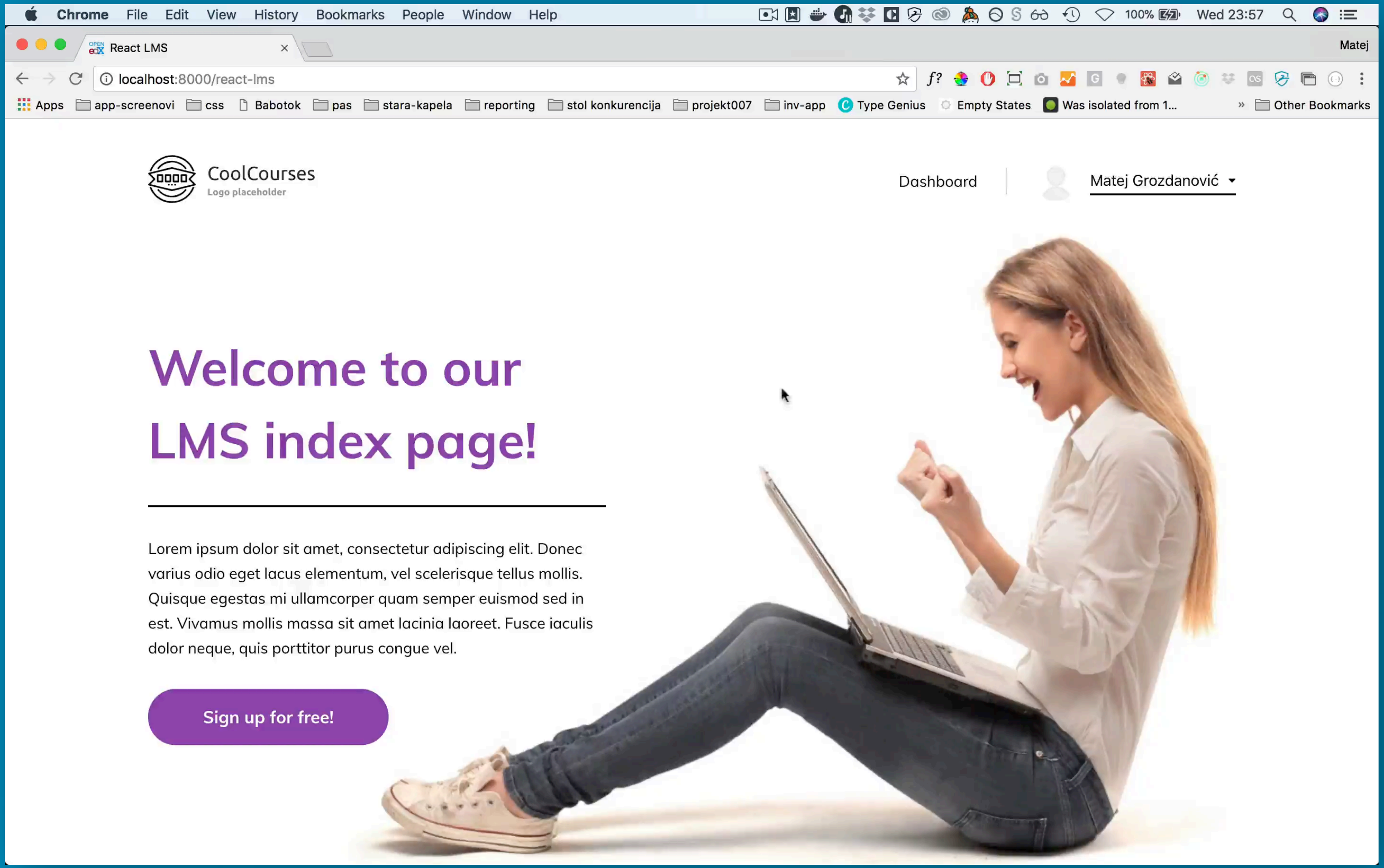
And that doesn’t exactly inspire playfulness and experimentation in developers, nor invites new ones into the community.

Separation of frontend and backend! (!!omg!!!yes!)

Frontend and backend communicating through API’s, essentially making frontend development teams lives a lot easier and giving us tons of flexibility.

Benefits of separated frontend

Lower barrier of entry for new developers & possibilities of UX/UI experiments creating and contributing to apps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Welcome to our LMS index page!

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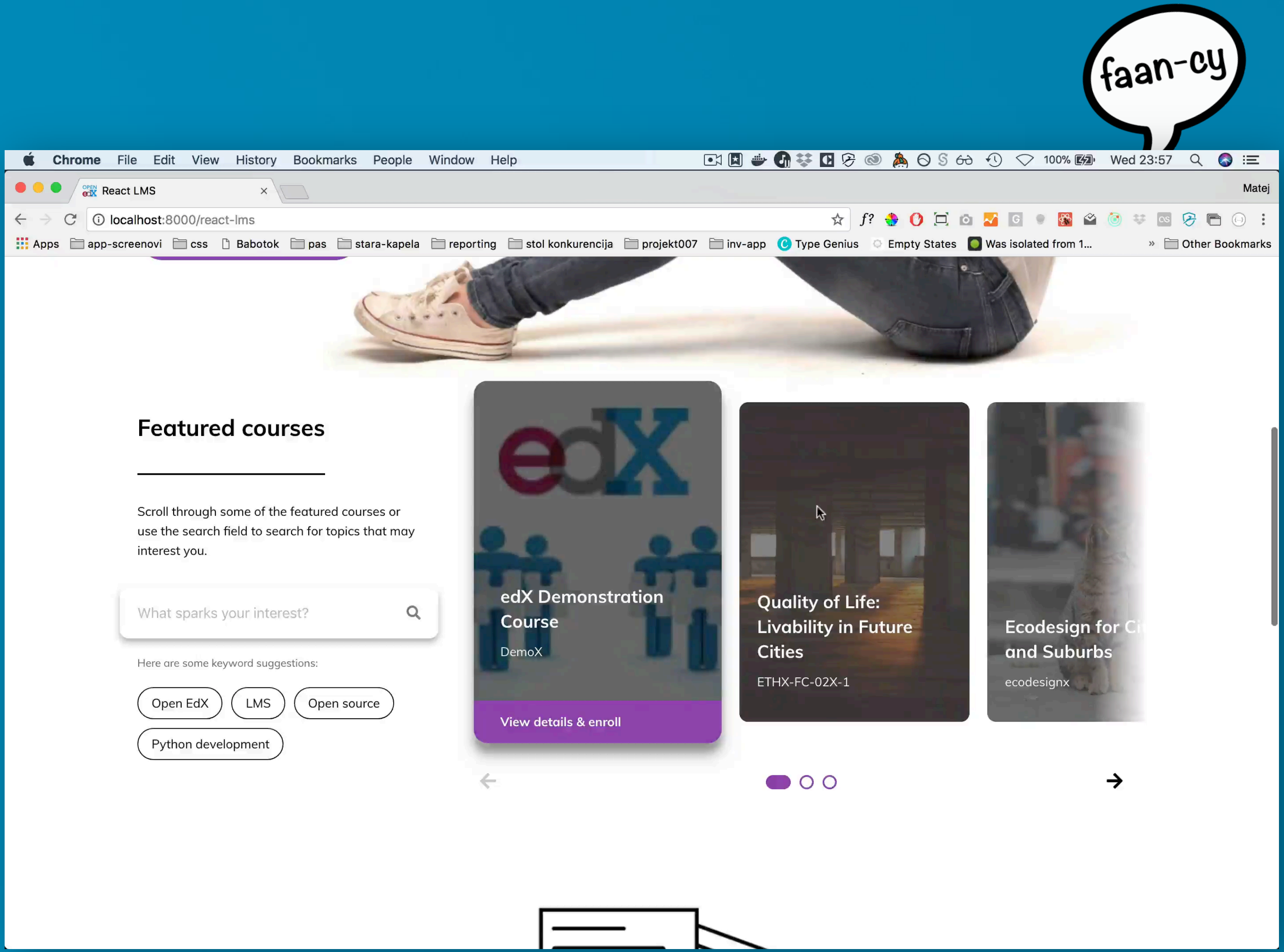
Benefits of modern frameworks

Possibilities of creating and implementing modern UI designs and interactions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What sparks your interest?

Here are some keyword suggestions:

Open EdX | LMS | Open source | Python development

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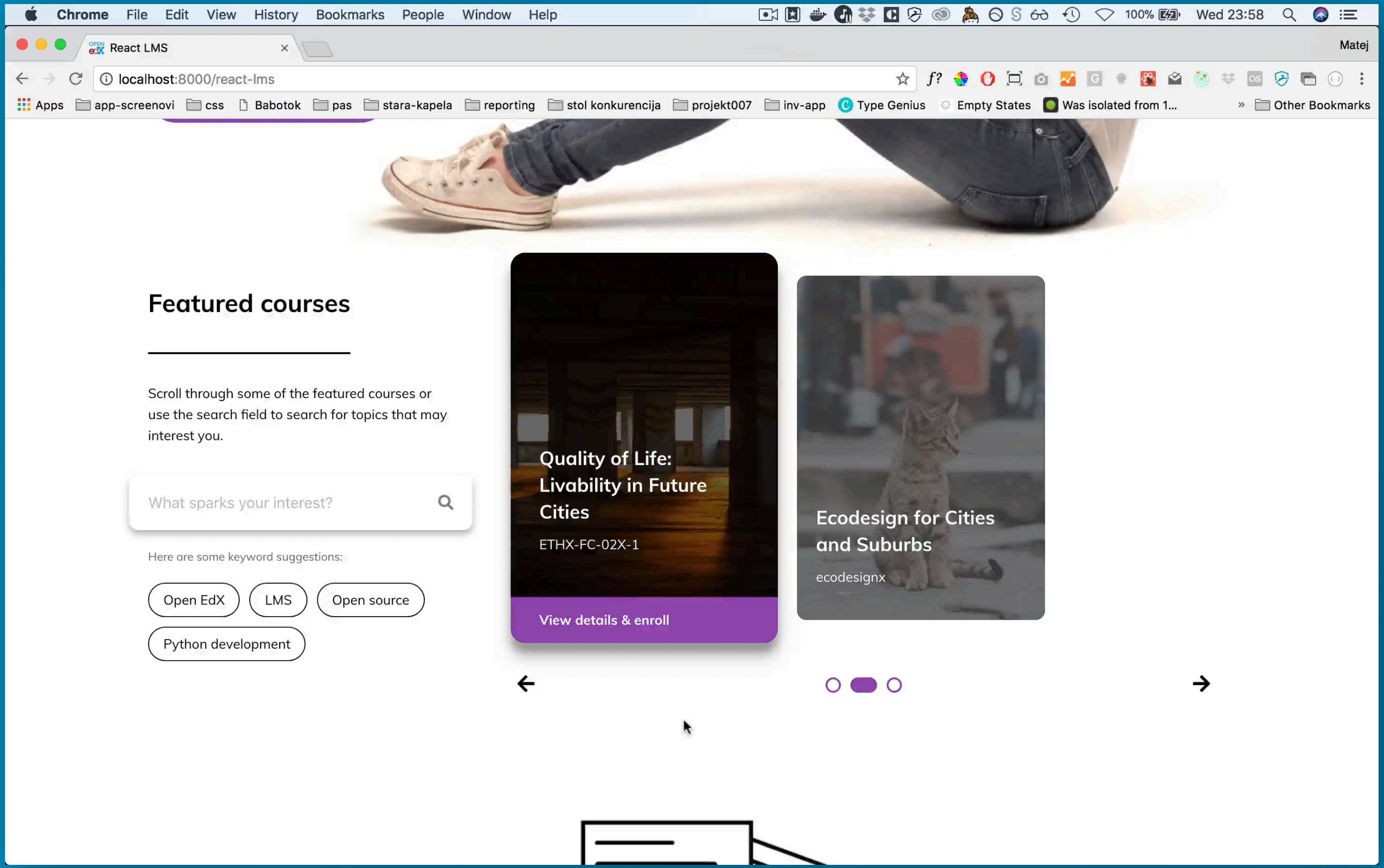
Benefits of modern frameworks

More fancy stuff like custom routing, hot reloading and fancy transitions*

* that I miserably failed to implement here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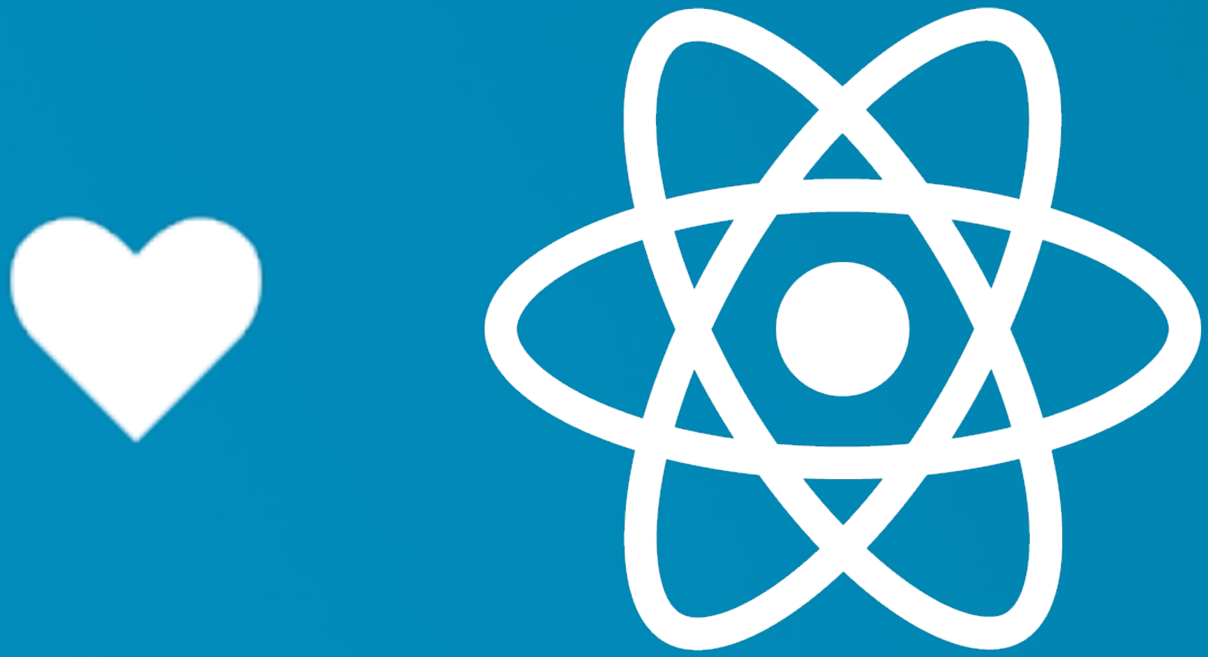
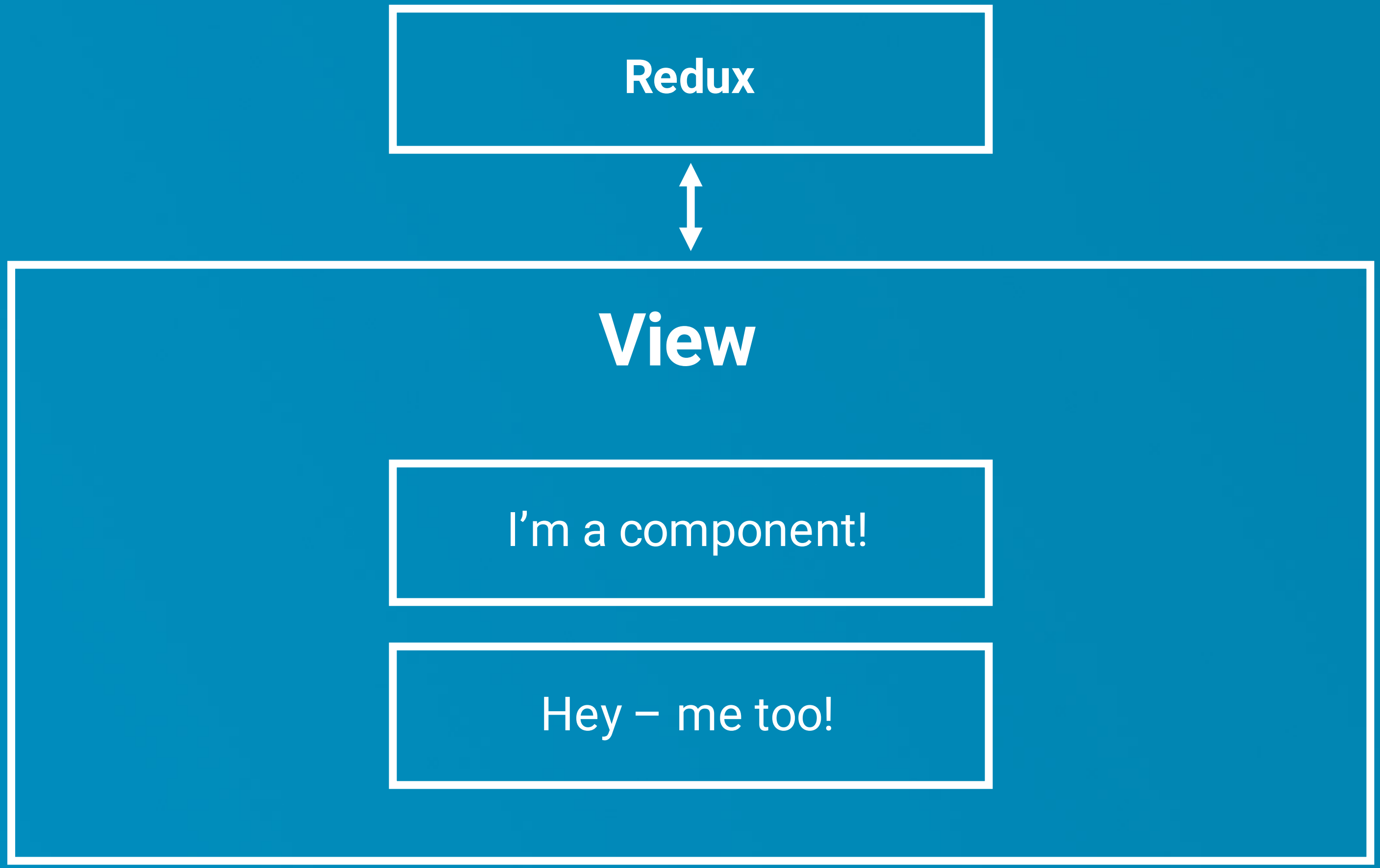


Redux

Holds and serves general application state
(user auth status, user data, general platform data).



Redux

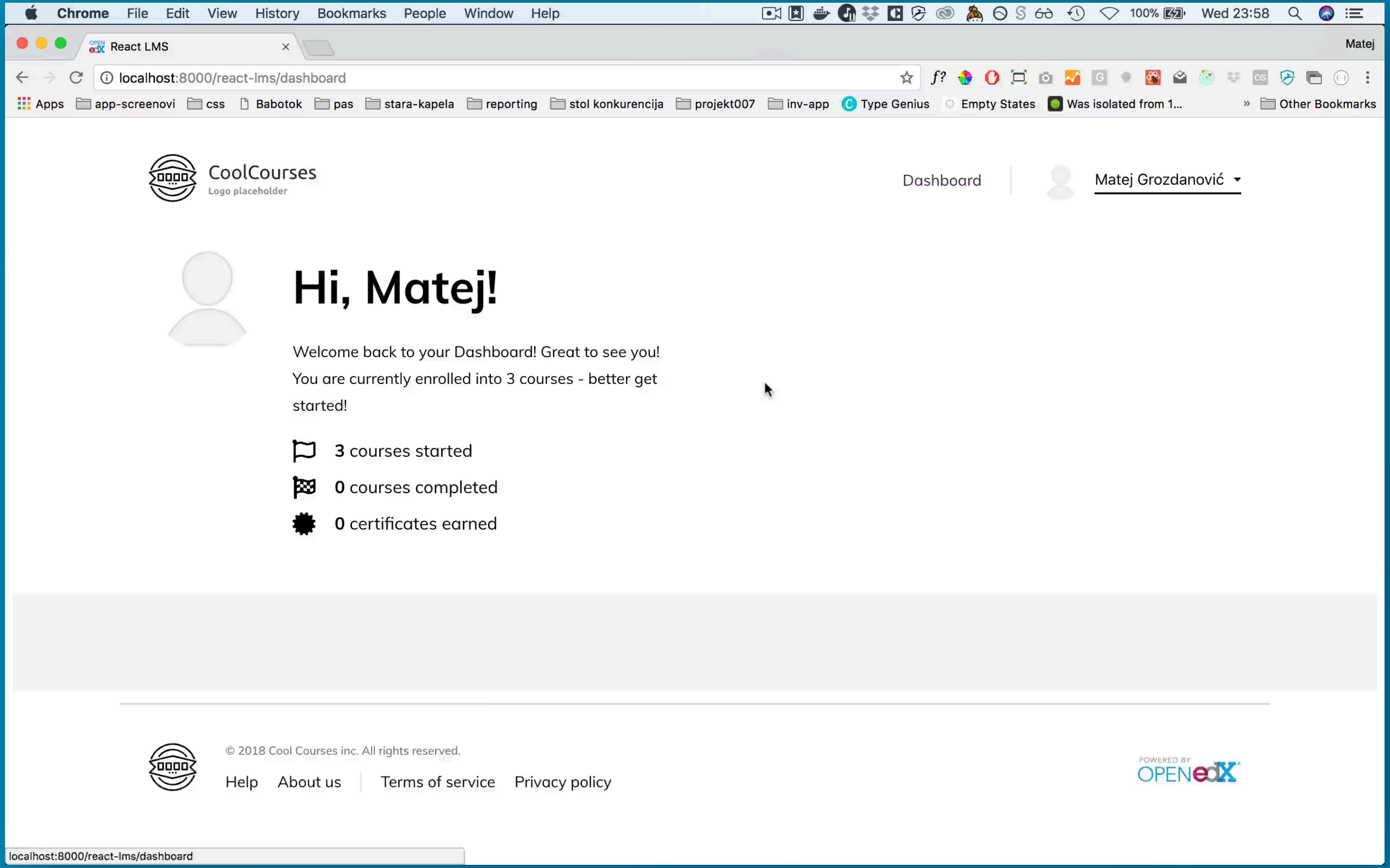
View

I’m a component!

Hey – me too!

Populating data on the fly

Views can fetch the data they need on the fly using the API



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No more “oh I messed up style for *that thing there*”

SASS is packaged with each component and classes are automagically hash-prefixed. Plus we have a global style library just to keep things nice and consistent.

But, but…

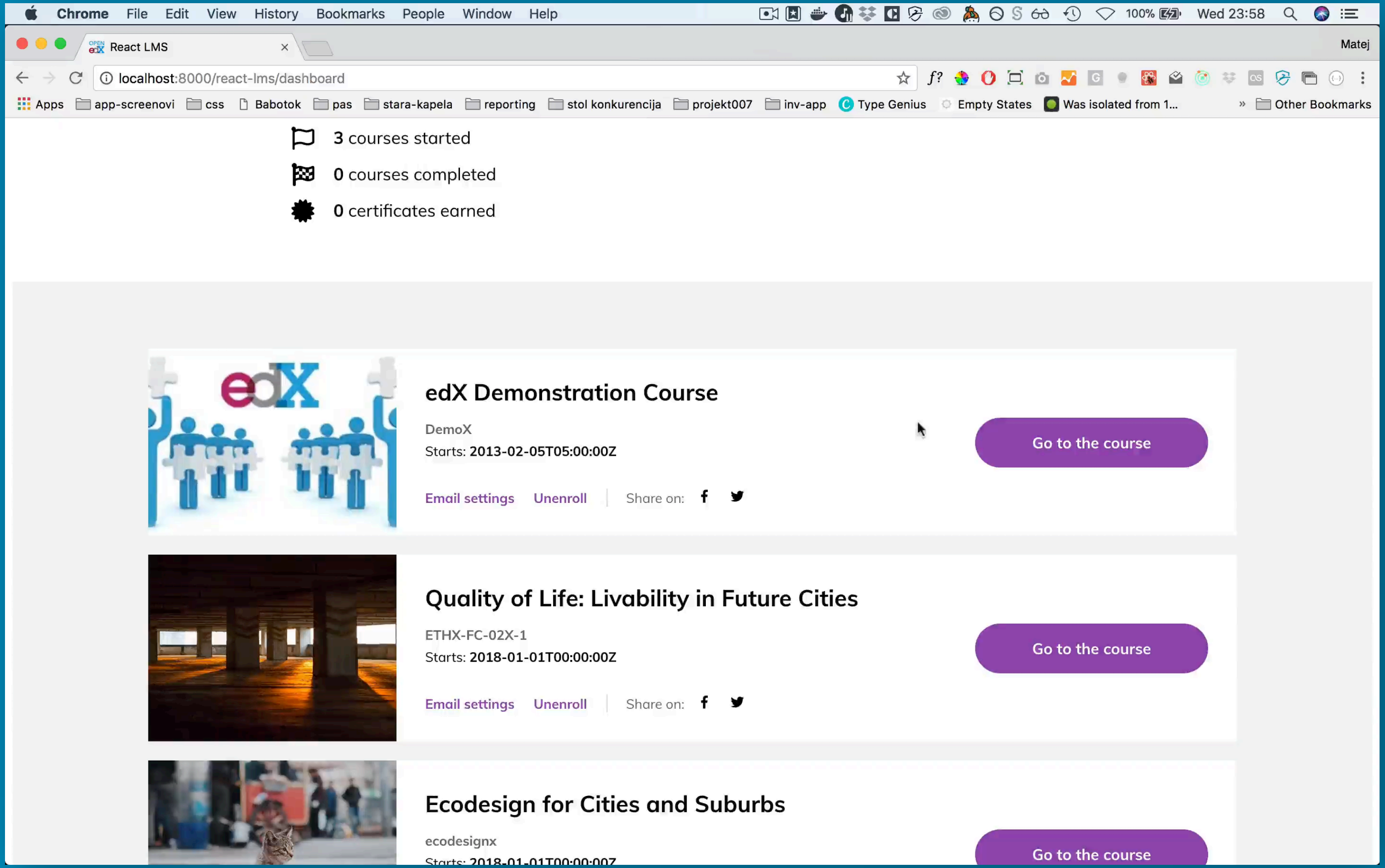
How do we theme this thing? I want to dress it up to look like my main website!

Why not the way we do it now with comprehensive theming?

The core app code is mirrored in theme folder, so includes are resolved by first looking into theme folder, then falling back to core. Scss, js, static assets – all overrideable.

What's currently achievable

Actually –
we can do a lot
(especially if we're willing to get our hands dirty poking around the backend)



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So, let’s start hacking and figuring out *what we need*

examples = [“What do we want API’s to return?”, “How do we want course content served?”]

Thank you!

Let’s continue chatting about this.

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