



REACT

AND THE PATH TO SANITY DRIVEN DEVELOPMENT

HI THERE

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let's

TIME TRAVEL

a bit



Remember this?

Typical flow:

Browser asks for page

Server fetches data from DB

Server fills templates with data

Full markup is returned

Need some UI interactions?

Add a bunch of **JavaScript files!**



(back in 2010's...)

JAVASCRIPT

undefined is not a function

caps is not defined

cannot read property 'length' of

undefined

...

OLD SCHOOL.

prototype



mootools

dōjō



script.aculo.us
the about the user-interface, baby!

Y!

MAIN PROBLEMS

- BIG PAYLOAD
- TEMPLATING LANGUAGES WITH SOME LIMITATIONS
- PAIR OUR JAVASCRIPT LOGIC WITH THE MARKUP
- WEAK (OR ABSENT) MODULE/COMPONENT SYSTEM
- BAD/LACK OF DEPENDENCY MANAGEMENT

Screenshot from the final part of a fellow developer's SO question:

And here's proof that I'm calling all of the files (I think):

```
<script src="/assets/jquery.js?body=1" type="text/javascript"></script>
<script src="/assets/jquery_ujs.js?body=1" type="text/javascript"></script>
<script src="/assets/jquery-ui.js?body=1" type="text/javascript"></script>
<script src="/assets/underscore.js?body=1" type="text/javascript"></script>
<script src="/assets/backbone.js?body=1" type="text/javascript"></script>
<script src="/assets/backbone-support/support.js?body=1" type="text/javascript"><sc
<script src="/assets/backbone-support/composite_view.js?body=1" type="text/javascript
<script src="/assets/backbone-support/swapping_router.js?body=1" type="text/javascript
<script src="/assets/backbone-support.js?body=1" type="text/javascript"></script>
<script src="/assets/example_app.js?body=1" type="text/javascript"></script>
<script src="/assets/easing.js?body=1" type="text/javascript"></script>
<script src="/assets/modernizr.js?body=1" type="text/javascript"></script>
<script src="/assets/models/task.js?body=1" type="text/javascript"></script>
<script src="/assets/collections/tasks.js?body=1" type="text/javascript"></script>
<script src="/assets/views/task_view.js?body=1" type="text/javascript"></script>
<script src="/assets/views/tasks.js?body=1" type="text/javascript"></script>
<script src="/assets/views/tasks_index.js?body=1" type="text/javascript"></script>
<script src="/assets/routers/tasks.js?body=1" type="text/javascript"></script>
<script src="/assets/tasks/index.js?body=1" type="text/javascript"></script>
<script src="/assets/tasks/task.js?body=1" type="text/javascript"></script>
<script src="/assets/application.js?body=1" type="text/javascript"></script>
```

⌚ He's clearly not 100% sure if all of the 1000 necessary js files are being pulled

PAIRING STUFF?

When rendering a simple list, we had to implement methods like:

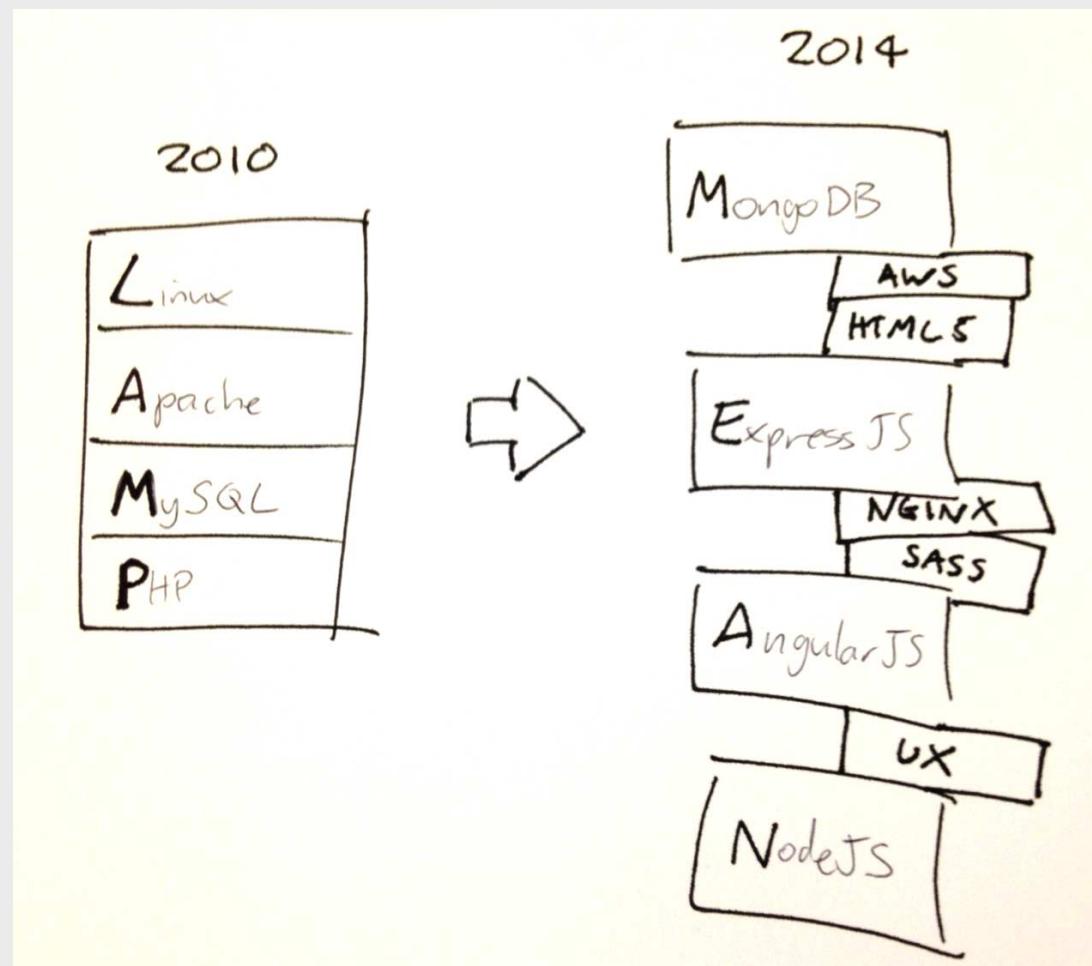
- render()
- update();
- delete();

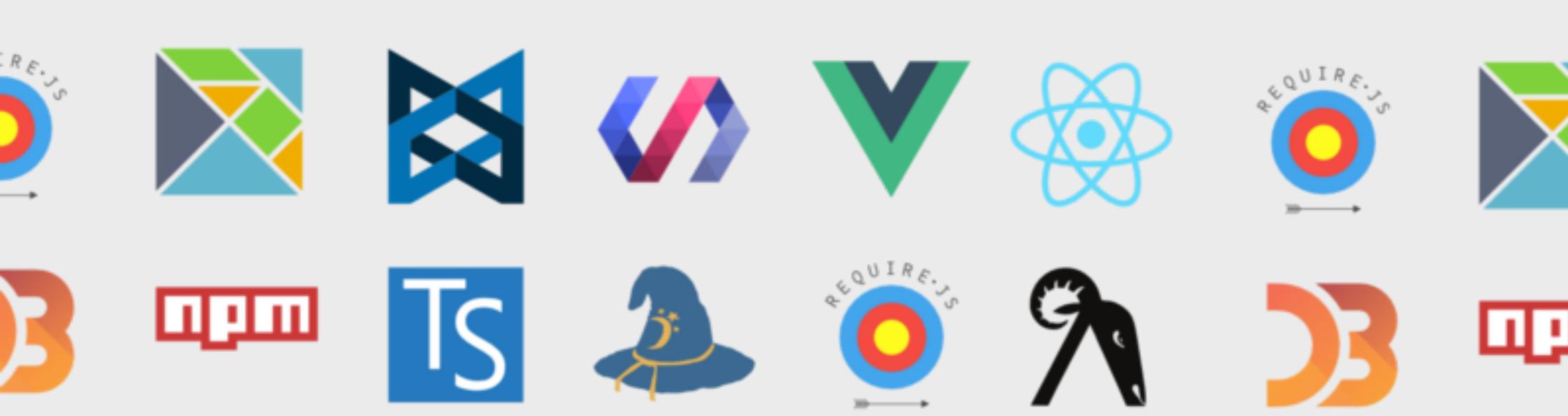
all these were
'glued' to the
markup by class
names, data
attributes, etc

A woman with blonde hair and blue eyes is looking directly at the camera. She is wearing a white collared shirt under a dark jacket. The background is dark and out of focus.

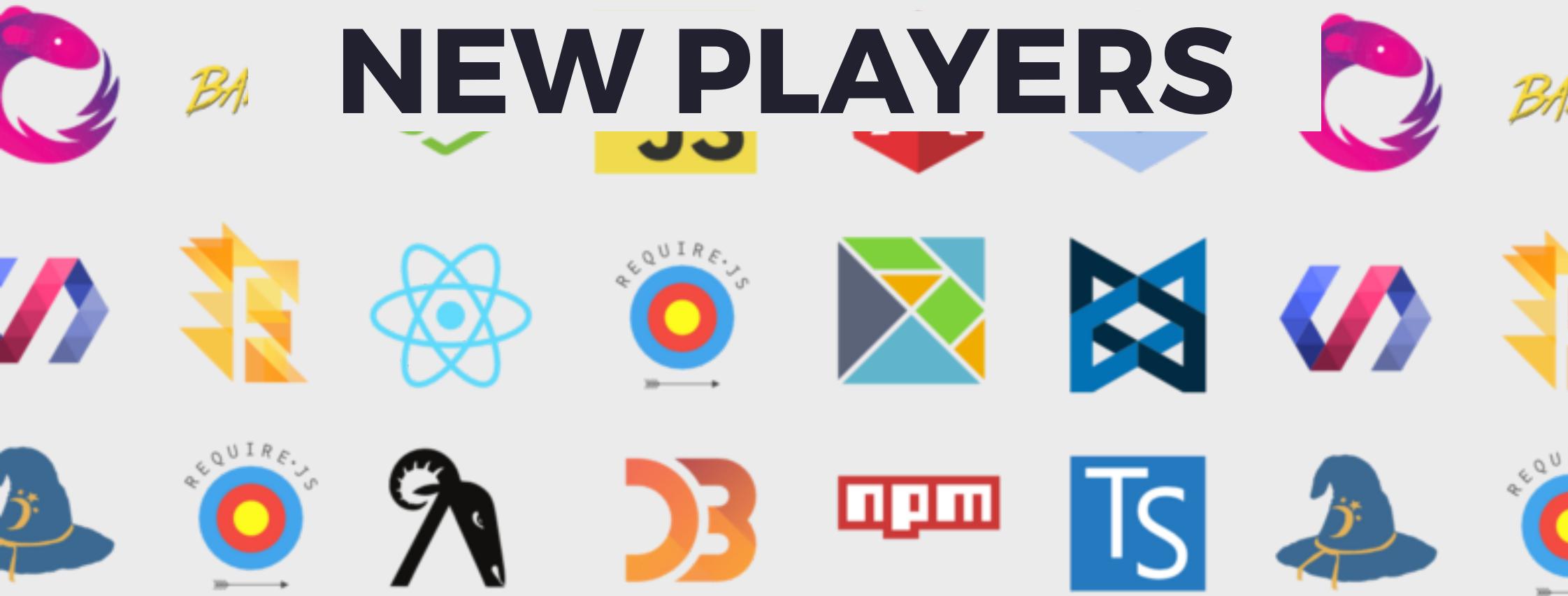
CLIENT SIDE

NEW STACKS





NEW PLAYERS



The flow becomes:

Browser asks for page

Server returns minimal markup

Client (JS) picks up and does all the
templating and additional requests

Pros

- ++ DEV. SPEED
- PROGRESSIVE LOADING
- RICHER INTERACTIONS
- QUICK RENDERING

Cons

- -- SEO
- FOC
- INITIAL LOAD MIGHT REQUIRE MORE TIME
- JS APPS BECOME MORE AND MORE COMPLEX

WHY REACT?

⚡ Wins

- ✓ Great adoption -> Strong dev community
 - ✓ Great developer tools
 - ✓ Security features



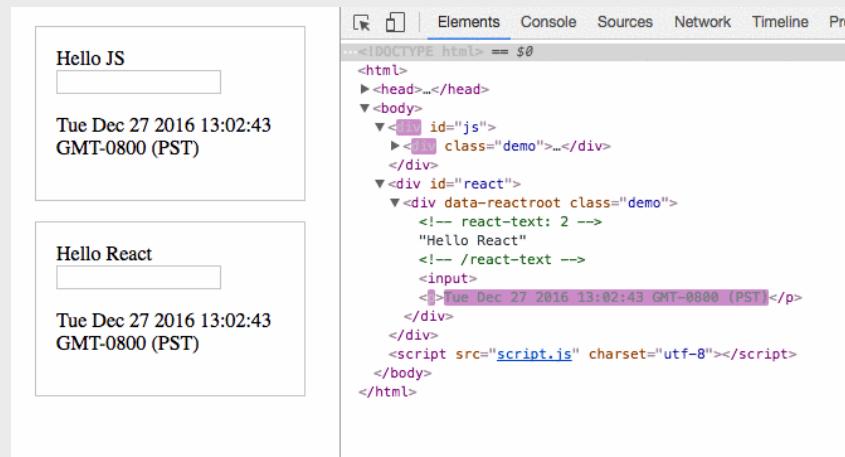
Henri
@henri_opa

[Follow](#)

Modern Javascript frameworks open door to bypass XSS mitigations.
React is the only major framework for which no exploit found [#appseceu](#)

⚡ Wins

- ✓ Understanding how react works -> React Native becomes a lot easier
- ✓ It's quick, thanks to the virtual DOM and *Tree Reconciliation*



⚡ Wins

JSX is cool 😎

You don't need to learn a new templating syntax

```
import ListItem from './ListItem';
...
render() {
  return (
    <ul>
      { items.map(item => <ListItem key={ item.id } item={ item }/> ) }
    </ul>
  );
}
```

⚡ Wins

- ✓ It's a library for building UI, not a framework
 - ✓ Server Side Rendering

Plus...

IT'S JUST FUNCTIONS

```
(props) => markup || more  
functions
```

Simplest React Component:

```
const ListItem = ({ name, id }) => (
  <li>
    { id } - { name }
  </li>
);
```

UFC

UFC

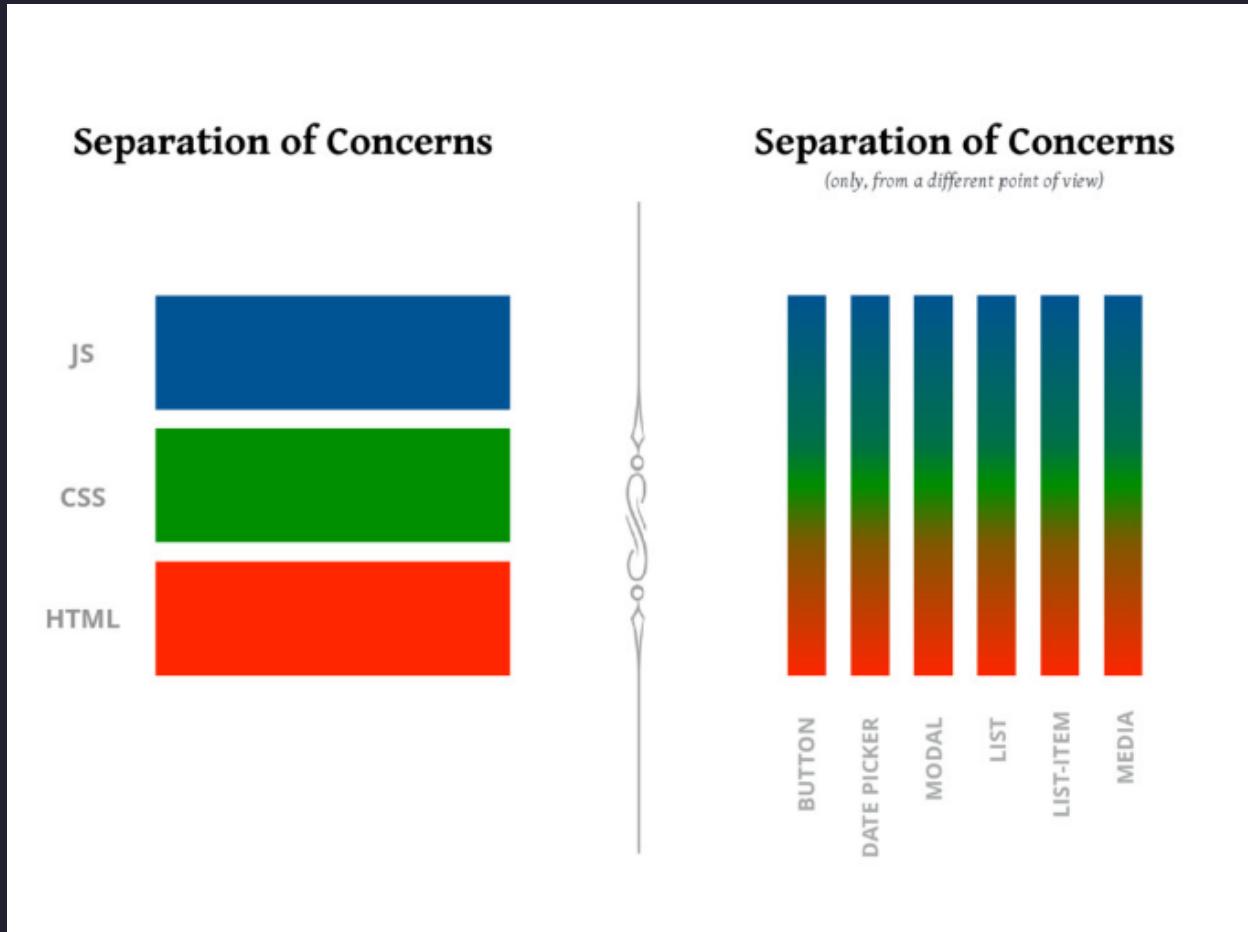
DEMOTIME



CHARLES
OLIVEIRA

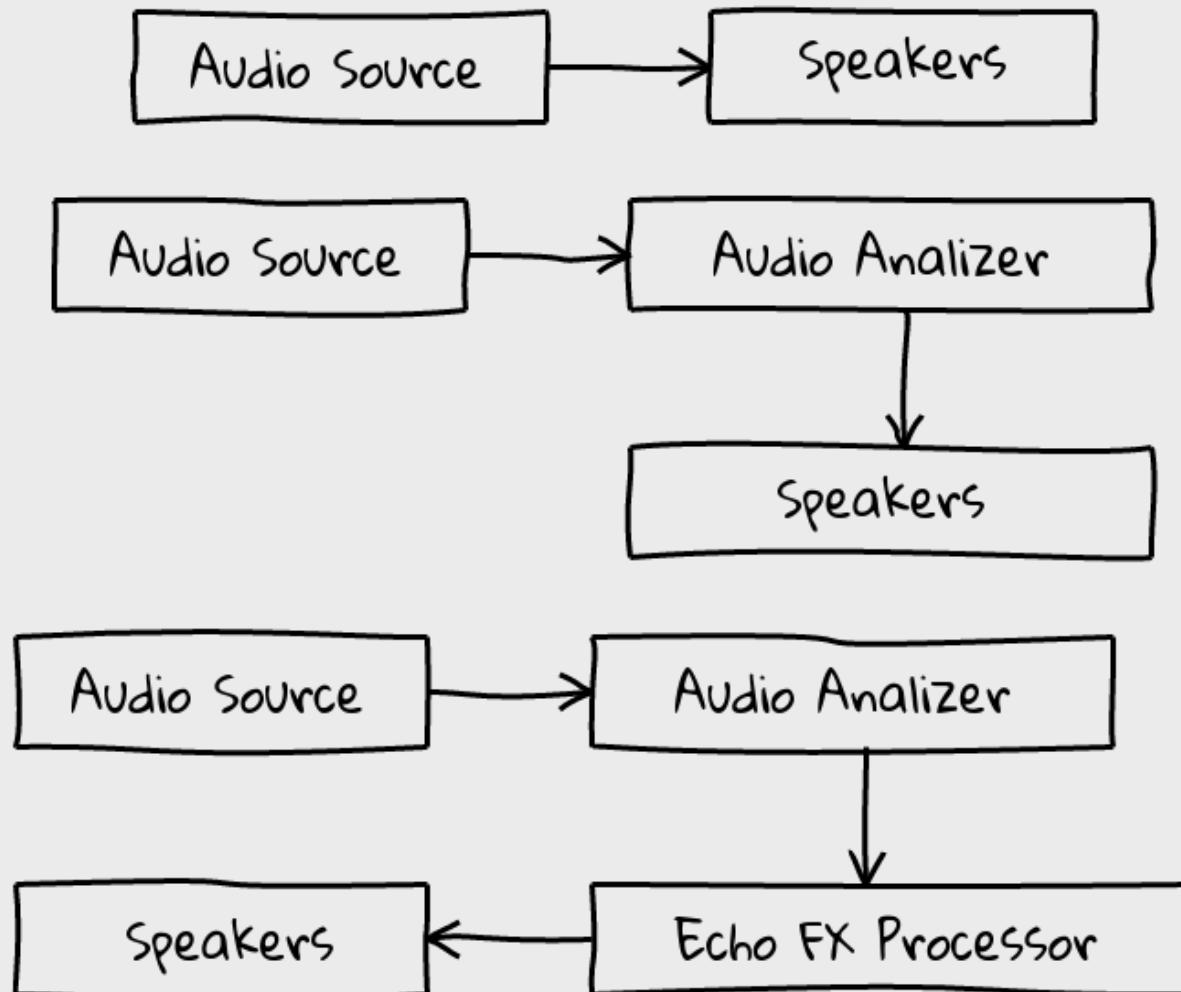
MMA RECORD: 21-7, INC
HEIGHT: 5'10" WEIGHT: 153 lbs
RANKS: -185 (Underdog)



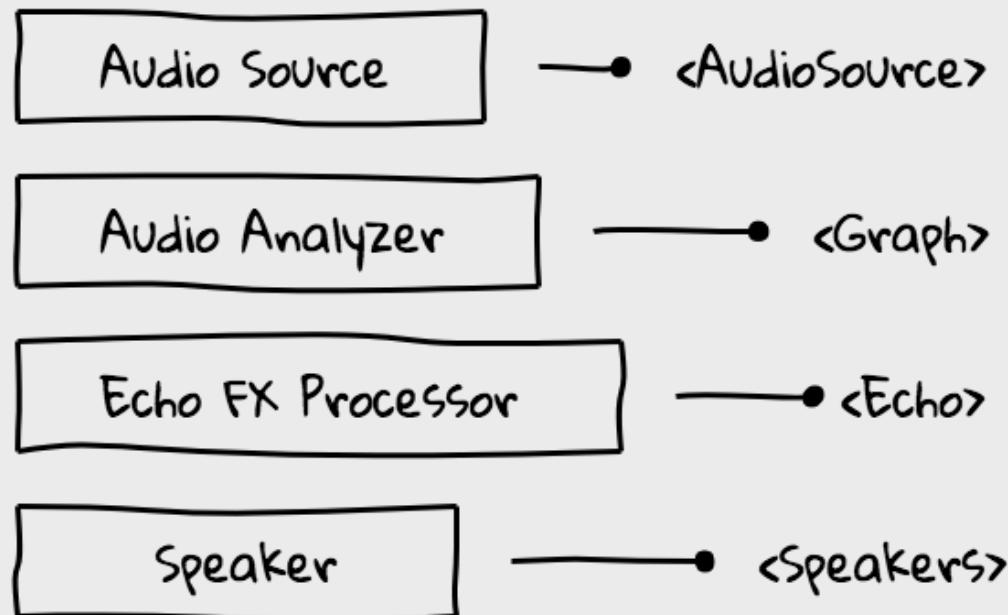


Great slide from Cristiano Rastelli's talk

COMPOSING (AUDIO) COMPONENTS



TRANSLATION TO REACT COMPONENTS



A close-up photograph of a man with dark hair and a beard. He is wearing a white dress shirt and a dark tie. His hands are clasped together in front of him, and he has a somber expression, looking downwards. The background is dark and out of focus.

DEMO TIME

Thank you for listening!

QUESTIONS ?

@antoniocapelo