TRANSPILERS

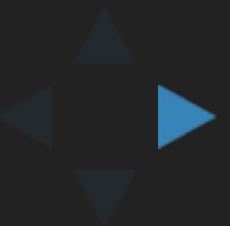## ASYNCHRONOUS SERVER TECHNOLOGIES

César Berezowski

Big Data Consultant @ Adaltas
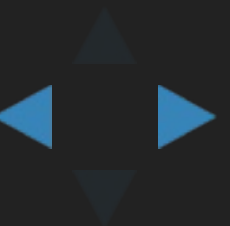
cesar@adaltas.com
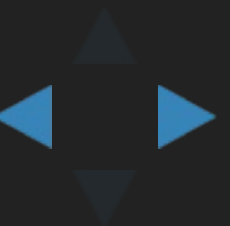
WHAT IS A TRANSPILER ?

COMPILER & TRANSPILER

- Compile: transforming a source code written in a language A (source language) to a language B (target language)
- Transpile (or transcompile): a source-to-source compilation, meaning that the source language and the target language are of the same level (cf: high/low level of programming languages)
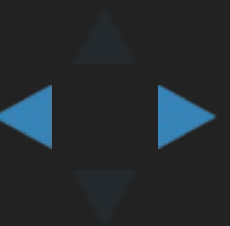- A transpiler **is** a compiler

WHY

- Enhance code quality and readability
- Accelerate programming
- Change strong/weak typing (eg: TypeScript)
- Change programmation paradigm
- Add fancy features

IN WEB TECHNOLOGIES

- Development speed is very important
- No impact on execution speed
- Allow a pretty, clean, commented source code
- Compiles into size-optimized files

TRANSPILERS

- Pug -> html
- Stylus -> CSS
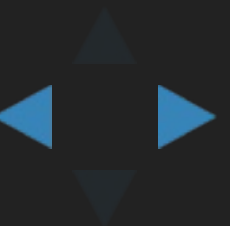- CoffeeScript -> JavaScript

PUG

PUG

- HTML transpiler
- Template engine → supports dynamic code
- Reusable
- Indentation rather than markups
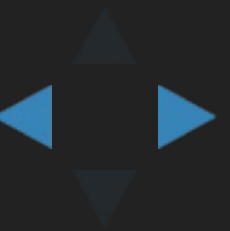- Lighter than HTML

Doc: pugjs.org

PUG


```
doctype html
html(lang="en")
  head
    title= pageTitle
    script(type='text/javascript').
      if (foo) bar(1 + 5)
  body
    h1 Pug - node template engine
    #container.col
      if youAreUsingPug
        p You are amazing
      else
        p Get on it!
      p.
        Pug is a terse and simple templating language with a
        strong focus on performance and powerful features.
```

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Pug</title>
    <script type="text/javascript">
      if (foo) bar(1 + 5)
    </script>
  </head>
  <body>
    <h1>Pug - node template engine</h1>
    <div id="container" class="col">
      <p>You are amazing</p>
      <p>Pug is a terse and simple templating language with a str
    </div>
  </body>
</html>
```
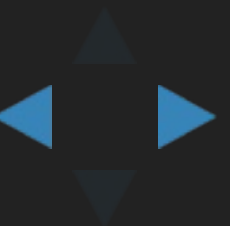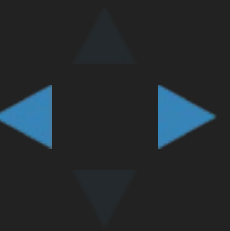
STYLUS

STYLUS

- CSS transpiler
- Template engine → supports dynamic code
- Nested syntax
- Indentation rather than {}
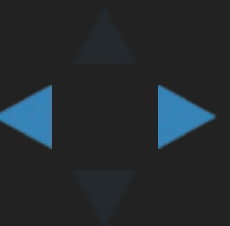- Lighter than CSS

Doc: stylus-lang.com

COFFEESCRIPT

COFFEESCRIPT

- Javascript transpiler
- Quick learning
- Indentation rather than {}
- Very efficient when using async callbacks
- Literate mode (CoffeeScript encapsulated in Markdown) is fancy

Doc: coffeescript.org/

QUESTIONS ?