

# SECTION 1: REACT.JS? WHY AND WHAT?

## WHY REACT.JS

 3 THE MOST POPULAR FRAMEWORKS (Libs) ON THE MARKET:

 ANGULAR2 (ANGULAR1)

 REACT.JS

 EMBER.JS

## FOOTPRINTS



REACT.JS IS SMALLEST




| ANGULAR2 minified | REACT.JS minified | EMBER.JS minified |
|-------------------|-------------------|-------------------|
| 459 KB            | 145 KB            | 580KB             |

# FRAMEWORK OT WHAT?

## WHAT IS Framework?

-  Makes app more structured
-  Provides with instruments you need (and you don't need)
-  Follows some Architecture Pattern (MVC, MVVM, MVP...)

## WHAT IS Library?

-  Gives one instrument to solve specific problem
-  Solves specific problem =)
-  Nothing else =)

## React.js is Framework or Library?

## REACT.JS IS LIBRARY

🔔 JUST THE UI

Lots of people  
use React as the

V in MVC. Since React makes  
no assumptions about the rest  
of your technology stack, it's easy  
to try it out on a small feature in an  
existing project.



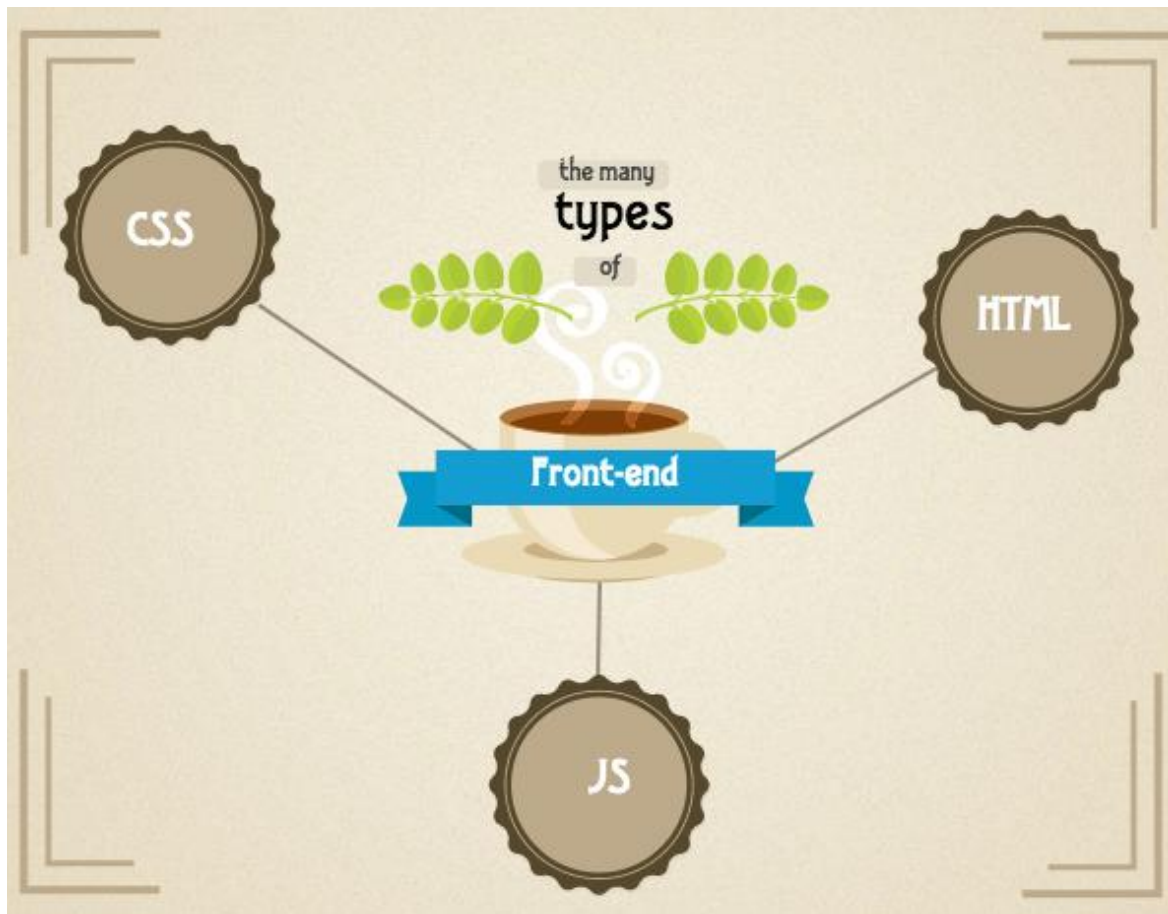
# JSX VS HTML

🔔 How UI looks like?

🔔 HTML

🔔 CSS

🔔 JS



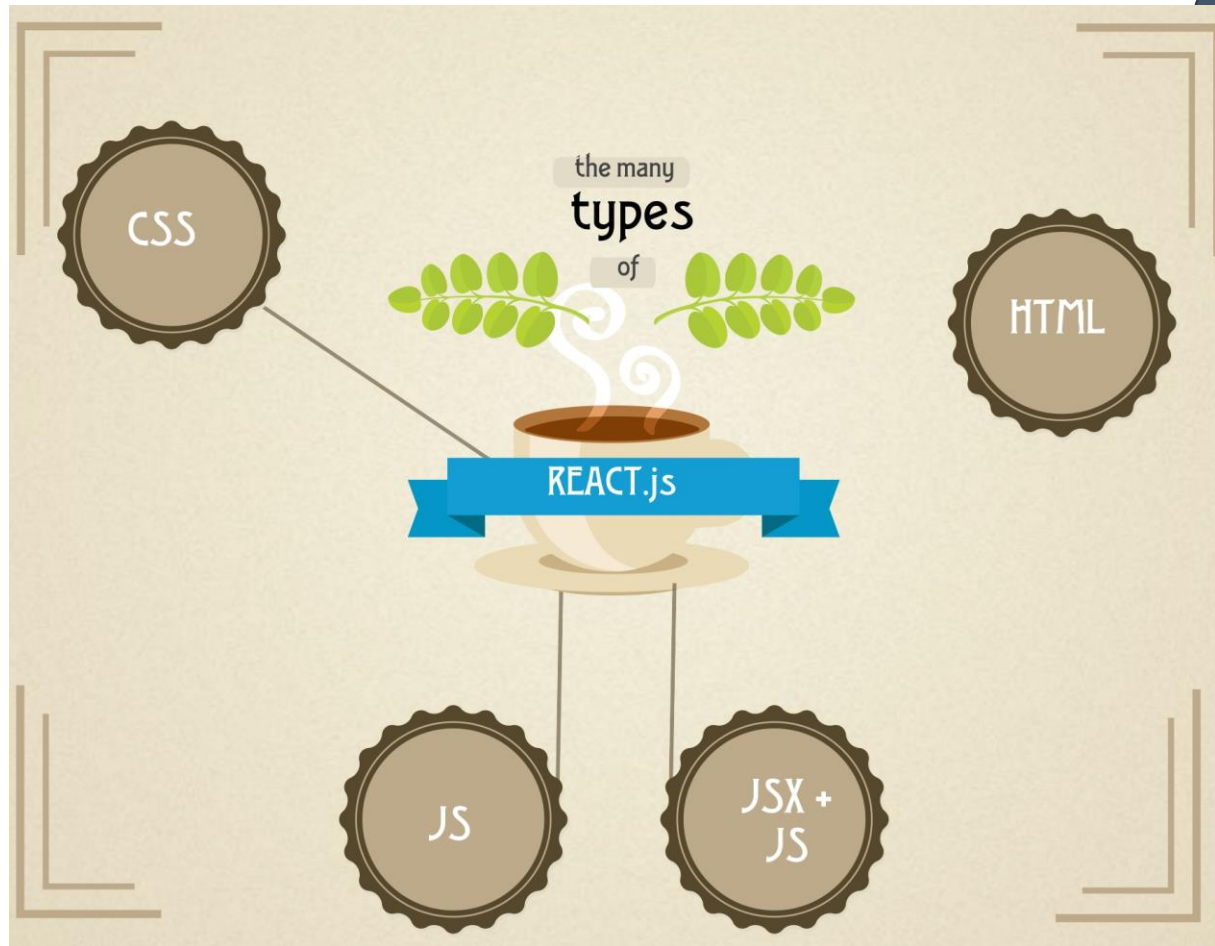
# JSX VS HTML

🔔 How React.js looks like?

🔔 JS + JSX

🔔 CSS

🔔 JS



# JSX VS HTML



With React.js you are far away from HTML, but at the same time you are closer to JS. Let me show what I mean:

Angular2

```
<ul>
<li *ngFor="#hero of heroes">
  {{hero.name}}
</li>
</ul>
```

React.js use plain 'ol JavaScript:

```
<ul>
  { heroes.map(hero =>
    <li key={hero.id}>{hero.name}</li>
  )}
</ul>
```

| React           | Ember      | Angular1  | Knockout | Knockout            |
|-----------------|------------|-----------|----------|---------------------|
| JUST USE JS. :) | {{# each}} | ng-repeat | *ngFor   | data-bind="foreach" |



# JSX VS HTML



What is quite nice about JSX is that with Angular2 and Ember you know about errors mostly at runtime when with React.js you know about them at compile time and believe me it makes you life much easier:

```
ERROR in ./index.js
Module build failed: SyntaxError: /Users/ptkach/Documents/work/projects/music/index.js: Unterminated JSX contents (31:21)
 29 | }
 30 |
> 31 | ReactDOM.render(<App>, document.getElementById('root'));
    |                  ^
 32 |
    at Parser.pp.raise (/Users/ptkach/Documents/work/projects/music/node_modules/babel-core/node_modules/babylon/index.js:1378:13)
    at Parser.pp.jsxReadToken (/Users/ptkach/Documents/work/projects/music/node_modules/babel-core/node_modules/babylon/index.js:3961:12)
    at Parser.<anonymous> (/Users/ptkach/Documents/work/projects/music/node_modules/babel-core/node_modules/babylon/index.js:4315:21)
    at Parser.readToken (/Users/ptkach/Documents/work/projects/music/node_modules/babel-core/node_modules/babylon/index.js:3632:22)
```

# HELLO REACT.JS!

- 🔔 A Library made by Facebook
- 🔔 Only for user interfaces
- 🔔 Easy to learn
- 🔔 Not only in the browser
- 🔔 Composability
- 🔔 Fast
- 🔔 Huge ecosystem
- 🔔 Very popular (~40000 Stars at Github, since 2013)