

Elm

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<http://elm-lang.org>



- * funkcionální jazyk kompilovaný do JavaScriptu
- * statický silně typovaný, využívající inference

Features

- * JavaScript Interop


```
<div id="main"></div>
```

```
<script src="main.js"></script>
```

```
<script>
```

```
    var node = document.getElementById('main');
```

```
    var app = Elm.Main.embed(node);
```

```
    // Note: if your Elm module is named "MyThing.Root" you
```

```
    // would call "Elm.MyThing.Root.embed(node)" instead.
```

```
</script>
```



```
port module Spelling exposing (..)
```

```
...
```

```
-- port for sending strings out to JavaScript
```

```
port check : String -> Cmd msg
```

```
-- port for listening for suggestions from JavaScript
```

```
port suggestions : (List String -> msg) -> Sub msg
```

```
<script src="spelling.js"></script>
```

```
<script>
```

```
    var app = Elm.Spelling.fullscreen();
```

```
    app.ports.check.subscribe(function(word) {
```

```
        var suggestions = spellCheck(word);
```

```
        app.ports.suggestions.send(suggestions);
```

```
    });
```

```
    function spellCheck(word) {
```

```
        // have a real implementation!
```

```
        return [];
```

```
    }
```

```
</script>
```


Features

- * JavaScript Interop
- * No Runtime Exceptions


```
-- TYPE MISMATCH ----- tmp.elm
```

The left argument of (+) is causing a type mismatch.

```
3|   "Name: " + repo.name
   ^^^^^^^
```

(+) is expecting the left argument to be a:

number

But the left argument is:

String

Hint: To append strings in Elm, you need to use the (++) operator, not (+).
<<http://package.elm-lang.org/packages/elm-lang/core/latest/Basics#++>>

Features

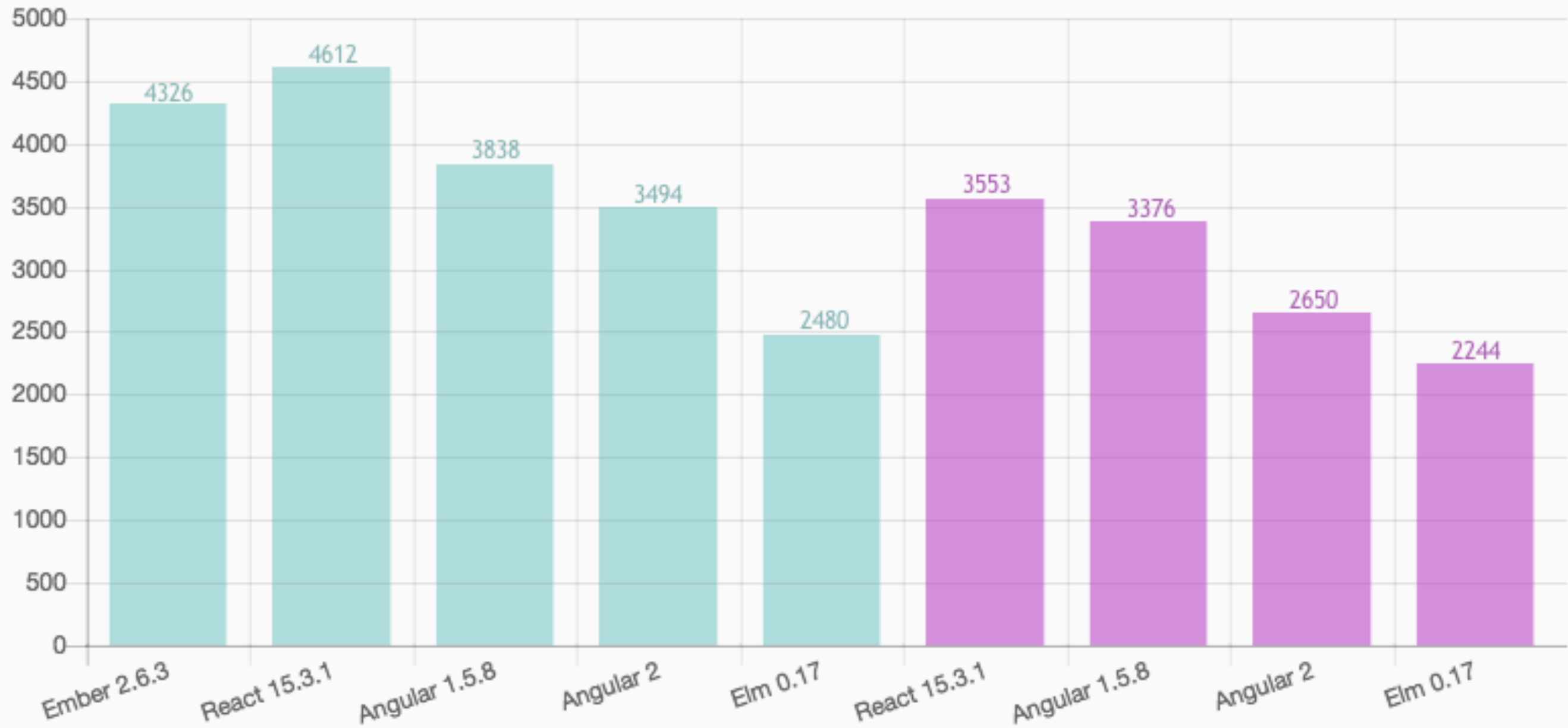
- * JavaScript Interop
- * No Runtime Exceptions
- * Great Performance

Speed in Milliseconds

Shorter bars are Better

Chrome 52 on OSX

■ = Naive
■ = Optimized



Features

- * JavaScript Interop
- * No Runtime Exceptions
- * Great Performance
- * Enforced Semantic Versioning


```
~/Desktop >>> elm-package diff evancz/elm-html 1.1.0 2.0.0
Comparing evancz/elm-html 1.1.0 to 2.0.0...
This is a MAJOR change.
```

```
----- Changes to module Html.Attributes - MAJOR -----
```

Added:

```
    attribute : String -> String -> Attribute
    minlength : Int -> Attribute
```

Changed:

```
    - colspan : String -> Attribute
    + colspan : Int -> Attribute

    - rowspan : String -> Attribute
    + rowspan : Int -> Attribute
```


Features

- * JavaScript Interop
- * No Runtime Exceptions
- * Great Performance
- * Enforced Semantic Versioning
- * The Elm Architecture

Tooling

- * `elm-repl`
- * `elm-reactor`
- * `elm-make`
- * `elm-package`
- * `elm-live`, `elm-test`, `elm-format`, ...