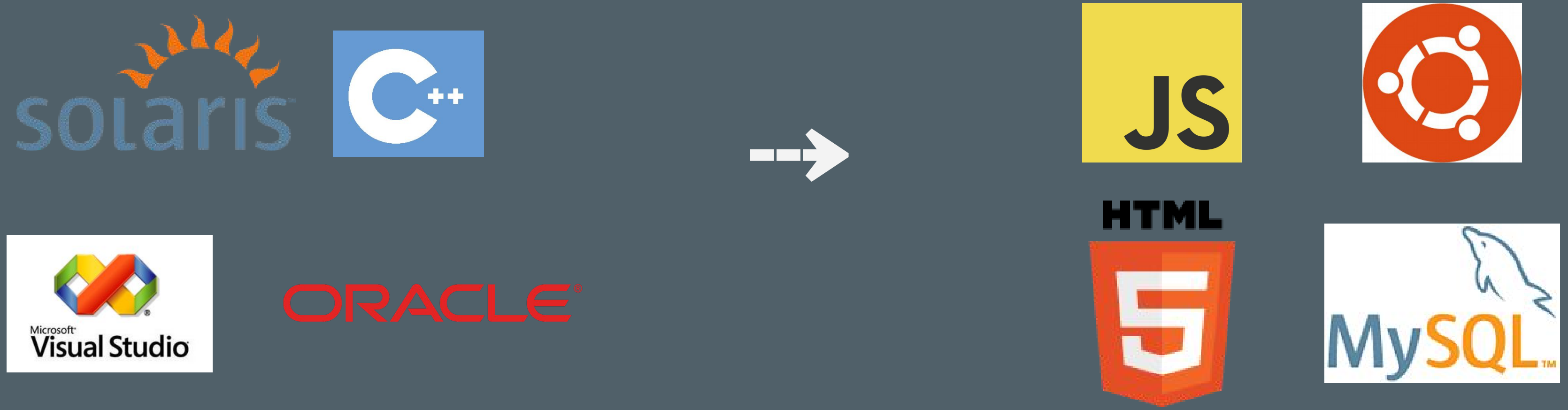

The Nightmares of Transitioning to JavaScript

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The year 2000…

No one in his right mind would consider using JavaScript for anything except making a web page do something mildly clever

```javascript
// A trip to the year 2000 - some of the last JavaScript I wrote
// before abandoning it for over a decade
function next() {
     if (current != pages && isExpanded == 0) {
          hide(page[current]);
          current++;
          show(page[current]);
          pageBox.value = current + " of " + pages;
     }
}

function hide(name){document.all[name].style.display = "none";}
function show(name){document.all[name].style.display = "";}
```

10 years and 300,000+ lines of C++ later…

```
import { React, Dispatcher } from 'praxis';
import Note from './Note';

export default class NoteList extends React.Component {
    constructor(props) {
        super(props);
        this.onStoreChange = () => {
            this.forceUpdate();
        };
    }

    render() {
        var noteElements = [];
        this.props.notes.forEach(function(note) {
            noteElements.push(<Note key={note.key} text={note.text} />);
        });
        return (<div><ul>{noteElements}</ul></div>);
    }
}
```

Systems programming languages
to
JavaScript

"Surprise" #1: Unstructured

No classes or modules

Global scope

No block scope

Surprise #2: Dynamism

No types

Closures

Prototypes

Polyfills

```
// note: NOT a proper implementation!

// polyfill
if (!Array.prototype.forEach) {
  Array.prototype.forEach = function(callback, arr) {
    for (var i = 0; i < arr.length; i++) {
      callback.call(arr, arr[i]);
    }
  }
}

// use polyfill
myArray.forEach(function(item) {
  console.log(item);
});
```

Surprise #3: Performance

Interpreted

Garbage collected

No real-time guarantees

Surprise #4: Asynchrony

Asynchronous I/O

Callbacks

Surprise #5: It works on server-side

Node.js

Surprise #6: Community

Libraries

Support

Open source

Finally,

ECMAScript 2015

Conclusion

Your programming knowledge from other languages will translate very well

Your job will be much easier

But you need to learn to think differently