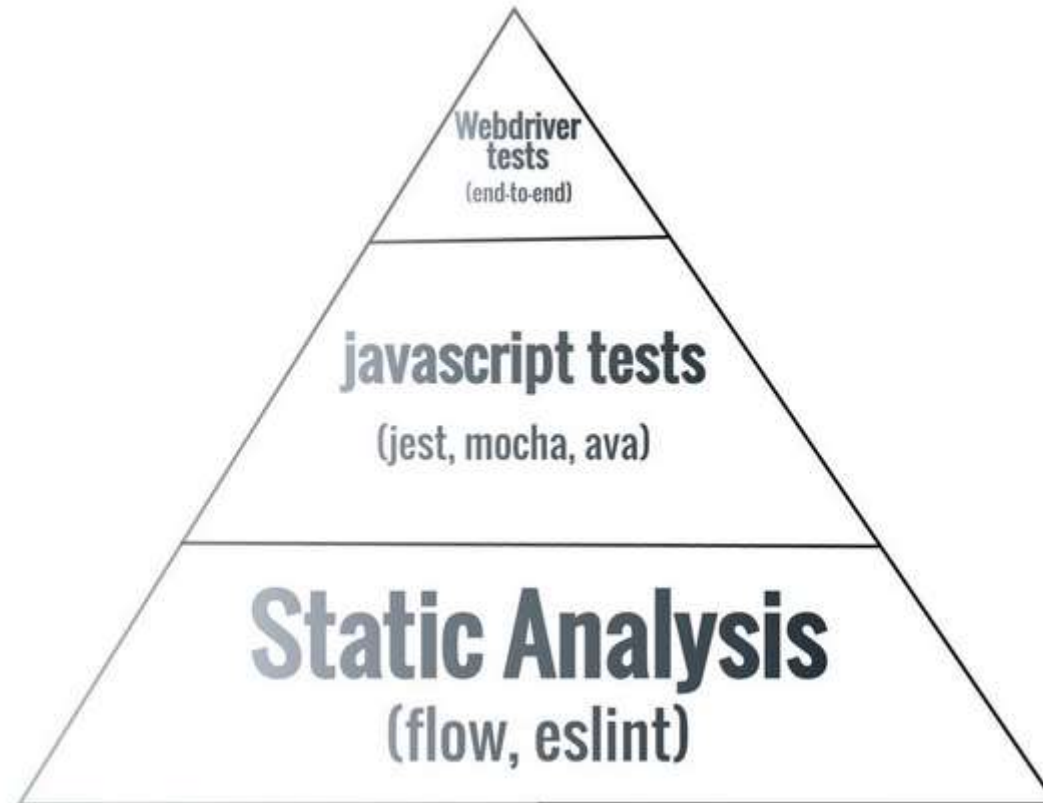


Lecture 9

Patrik Medved

Testing



Source: <https://twitter.com/aaronabramov/status/805913874704674816>

Test categories

- Unit tests
- Integration tests
- End-to-end tests

TDD

1. Write a test
2. See the test fail
3. Fix the test by adding an implementation

Frameworks

A lot of them, as it happens with JavaScript, e.g.:

- [Jasmine](#)
- [Mocha](#) + [Chai](#)
- [Jest](#)

Mostly similar API.

What to Test in a React App?

- Reducers
- Thunk actions
- Utility functions
- Action creators?
- Components?

Dependency Injection

You may know from [SOLID](#).

A bit different in JavaScript due to the lack of proper types. Closure to the rescue!

```
const stuffs = [];  
  
function getStuff() {  
  // Whatever implementation  
}  
  
function loadStuff() {  
  const stuff = getStuff();  
  stuffs.push(stuff);  
}
```



```
const stuffs = [];  
  
function getStuff() {  
  // Whatever implementation  
}  
  
function loadStuffFactory(dependencies) {  
  return function () {  
    const stuff = dependencies.getStuff();  
    stuffs.push(stuff);  
  };  
}  
  
const loadStuff = loadStuffFactory({ getStuff });
```

Mocking

Passing a “mock” instead of a real dependency.

Test can check whether the mock was called and the parameters it was called with.

<https://facebook.github.io/jest/docs/en/mock-functions.html>

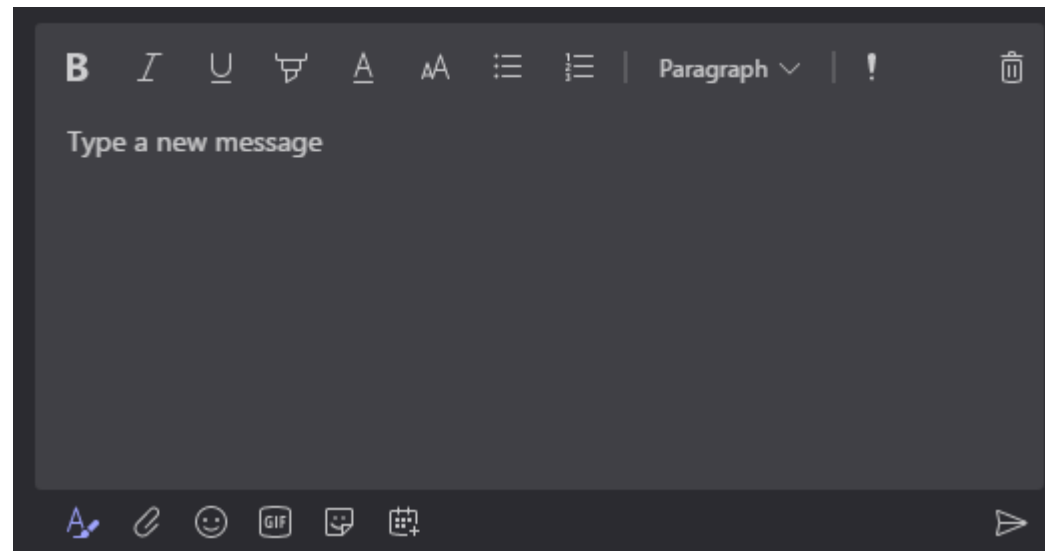
Testing Components

How to check the render returned correct elements?

- Relatively normal tests using [Enzyme](#).
- [Jest snapshot](#) tests using [react-test-renderer](#).

Rich Text Editor

A text area allowing to format the text and insert inline images etc.



People love it!

Draft.js

- React friendly
- It's a framework – no built-in features

<https://draftjs.org/>

Building Own Rich-text Editor

- Formatting
- Decorators
- Entities with custom renderer
- Much more...

<https://draftjs.org/docs/overview.html>

EditorState

What is it? **An Immutable.Record!**

- contentState
 - Represents the whole content
 - Contains blocks
 - Block
 - key
 - type
 - text
 - characterList – contains metadata for characters
- selectionState
 - Contains information about selection

EditorState

What to do with it?

Functions **convertToRaw** & **convertFromRaw** for persistence.

<https://draftjs.org/docs/api-reference-data-conversion.html>

Export to HTML.

<https://github.com/sstur/draft-js-utils/tree/master/packages/draft-js-export-html>

Editors Based on Draft.js

Foundation for many fully-featured editors

- <https://github.com/sstur/react-rte>
- <https://github.com/draft-js-plugins/draft-js-plugins>

Questions?