Unit Testing Node
with
Mocha, Chai, and Sinon

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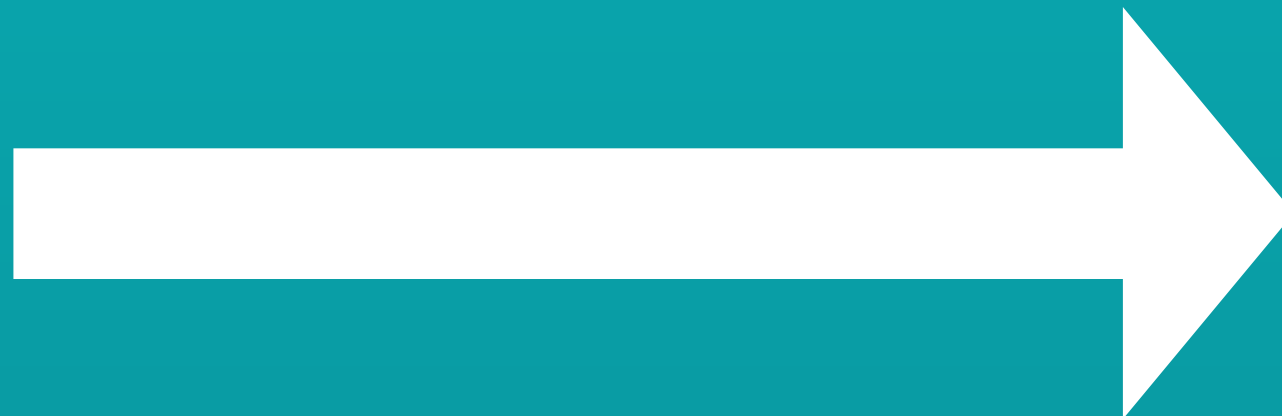github.com/
wleecarter/
connectjs-presentation

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The Plan

Intro + Basics - 10 min

Code - 30 min

Wrap Up - 5 min

A Test Answers This Question

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Does your code produce

the expected result?

Types of (Automated) Tests

Unit

Integration

End-to-End / Functional

Unit Test

"No (External) Dependencies"

Unit Test

"No External Dependencies"

~~read from / write to database~~

~~connect to external API~~

~~disk I/O~~

A Painfully Simple Example

```
function add ( value1, value2 ) {

    return value1 + value2;

}
```

```javascript
function findById(req, res) {
  Superhero.findById(req.params.id, function(err, superhero) {
    if(err) {
      return res.status(500).json(
        {message:'something has gone horribly wrong'}
      );
    }

    res.status(200).json(superhero);
  });
}
```

"Test Doubles"

"Stand-In" or "Replacement"

for a Dependency

"Test Doubles"

- ☐ **Fake**

- ☐ **Stub – Inject Values Into the Code**

- ☐ **Spy – Retrieve Values from the Code**

- ☐ **Mock**

Mocha

- ☐ **JavaScript Test Runner**

- ☐ **Runs on Node.js and in the Browser**

- ☐ **Supports Async & Promise Testing**

- ☐ **Modular**

Enough Talk, Let's See Some Code

Arrange, Act, Assert

Every* Test Does 3 Things

☐ **Act - call the function you're testing**

☐ **Assert - state how things should be after the function executes**

☐ **Arrange - set up the scenario or conditions**

What (Almost) No One Tells You About Testing

It Requires a Mental Shift

What (Almost) No One Tells You About Testing

Like any skill,

it takes time and practice

to master

What (Almost) No One Tells You About Testing

You start looking at developers who don't test the same way you look at developers who don't use source code

Questions?

Feedback?
Success Stories?
wleecarter@gmail.com

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Thank you