

Unit Testing Node

with

Mocha, Chai, and Sinon

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**github.com/
wleecarter/
connectjs-presentation**

bit.ly/1G5Ozz6

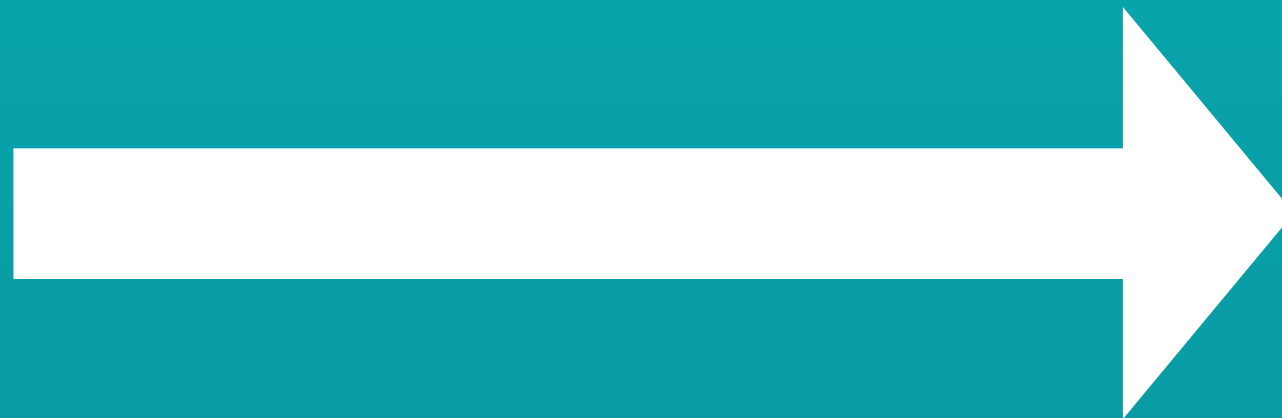
The Plan

Intro + Basics - 10 min

Code - 30 min

Wrap Up - 5 min

Not an Expert



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;  
}
```

```
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 control**

Questions?

Feedback?
Success Stories?
wleecarter@gmail.com

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Thank you