



Unit Testing with the JavaScript API

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Last Year's Talk

- **A Lot of Vocabulary**
- **Tons of Tools**

This Year's Talk

- **Some Ground Rules**
- **All the Demos**

How do we Test?

- ☐ Only Code
- ☐ Only Unit
- ☐ Weak Integration test
- ☐ No Test

Test Driven Development

- ☐ **Write Test**
- ☐ **Test Fails**
- ☐ **Write code till passes**
- ☐ **Refactor**

Rule #1:

Don't Test

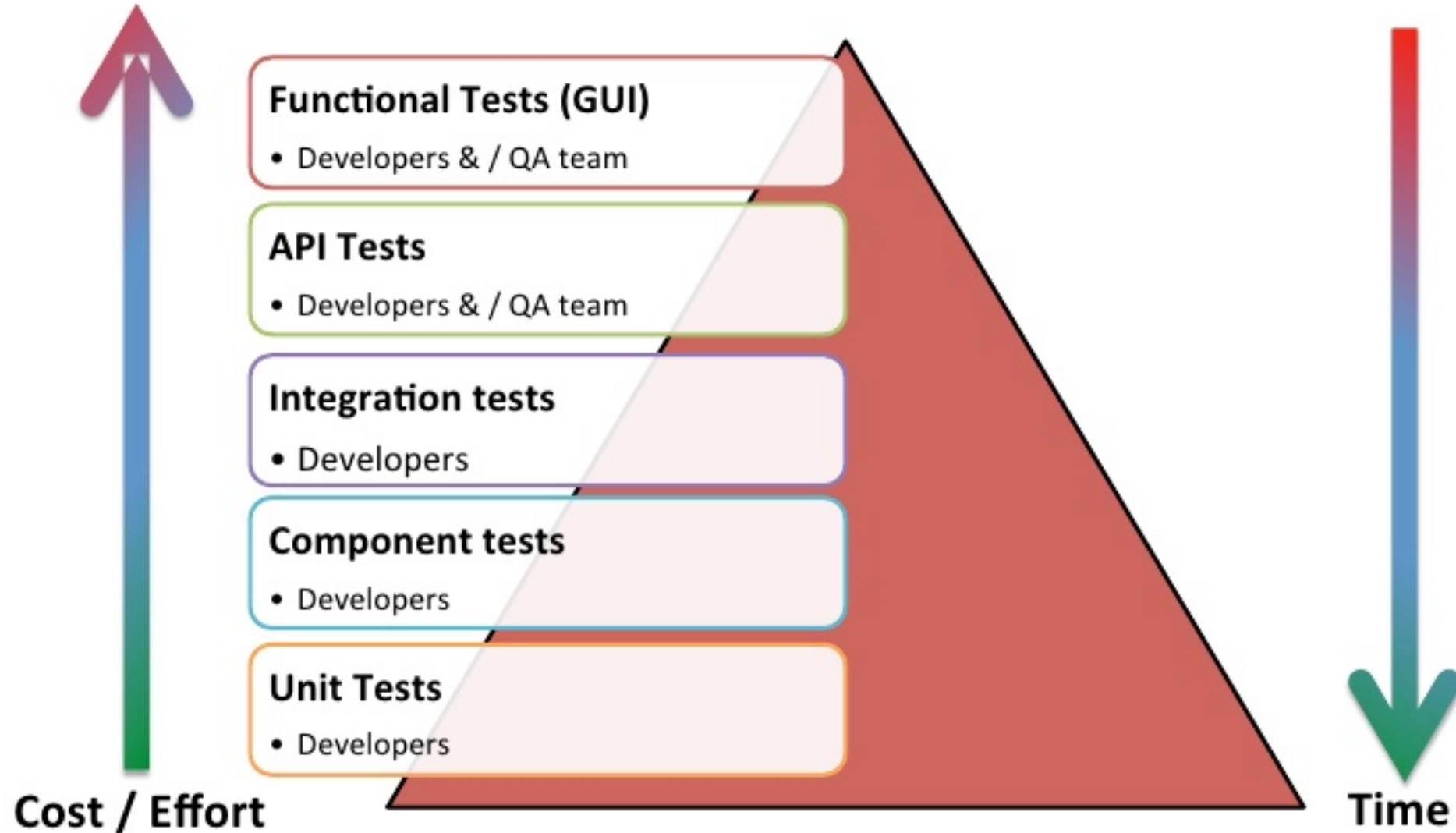
Other People's Code

Rule #2:

Prioritize

Ideal Test Pyramid

<https://www.slideshare.net/abagmar/anand-bagmar-behavior-driven-testing-bdt-in-agile>



Nightmare Test Pyramid



Bugs

**A single functional test that
hasn't passed in three years**

Rule #3:

Encapsulate

Encapsulate

Encapsulate

Easy to Test

=

Easy to Maintain



Test From The Start

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```
c:\git>arcgis create my-gis-app  
Creating ArcGIS project: my-gis-app
```

```
Preparing Application Directory
```

```
create : c:\git\my-gis-app  
ArcGIS Application template installed.
```

```
Running npm install
```

```
- Installing dependencies, this could take a while...
```

<https://github.com/Esri/arcgis-js-cli>



Fix Your Legacy

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<https://github.com/Esri/enterprise-build-sample-js>



Can I React?

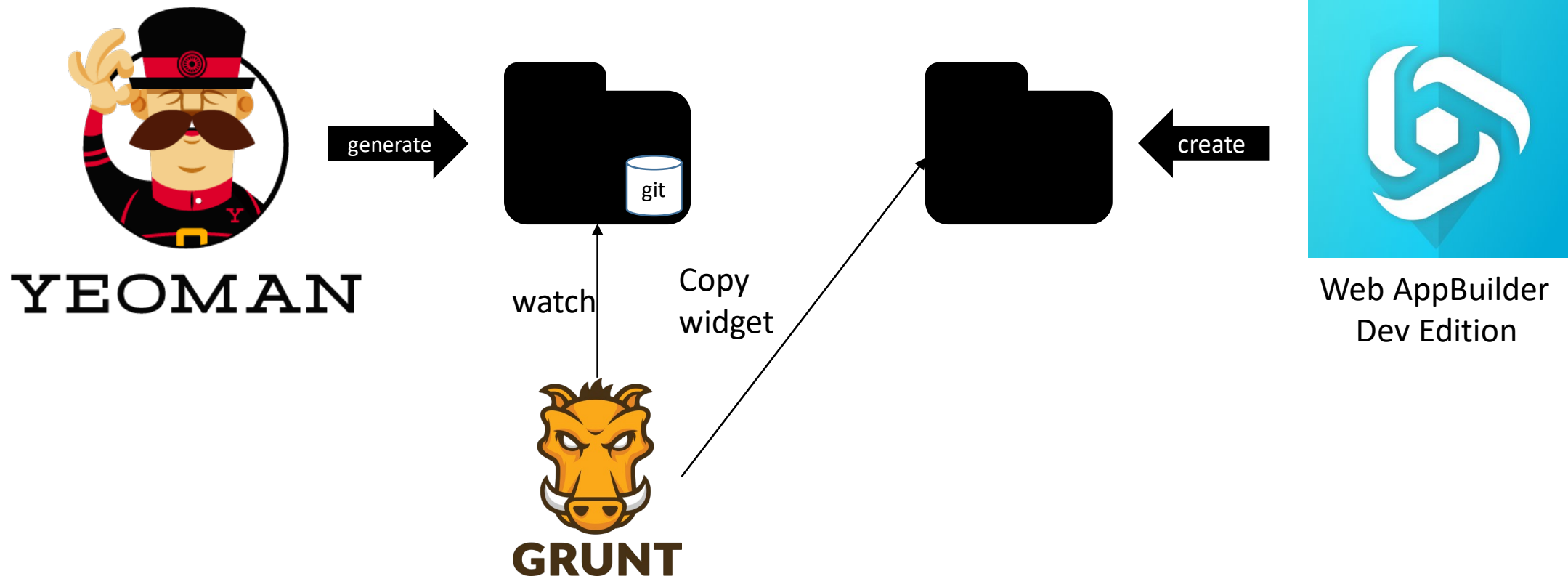
**(or Angular
or Ember
or new-trendy-framework)**

What About Web AppBuilder?



<https://github.com/gbochenek/esri-wab-build>

Separate Your Code



Related Talks

Web AppBuilder for ArcGIS: Advanced Development Tools and Techniques

- TODAY // 5:30 – 6:30
- Catalina / Medera
- George Bochenek / Gavin Rehkemper

Resources

ArcGIS JS CLI

<https://github.com/Esri/arcgis-js-cli>

Legacy App Sample

<https://github.com/Esri/enterprise-build-sample-js>

Nearby App - React

<https://github.com/Esri/nearby-javascript>

Web AppBuilder Resources

<https://github.com/gbochenek/wab-test-example>

The Clean Code Talks -> Unit Testing

<https://www.youtube.com/watch?v=wEhu57pih5w>

2018 Talk – Javascript Applications for the Enterprise: Test More, Work Less

<https://www.youtube.com/watch?v=amEMQk5iY5c&t=8s>

Tooling

Intern – Test Runner & Framework

<https://theintern.io/>

Karma – Test Runner

<http://karma-runner.github.io/latest/index.html>

SinonJS – Spies, Stubs, Mocks

<https://sinonjs.org/>

TS Mockito – Strongly Typed Mocking Library

<https://github.com/NagRock/ts-mockito>

Jasmine – Test Framework

<https://jasmine.github.io/>



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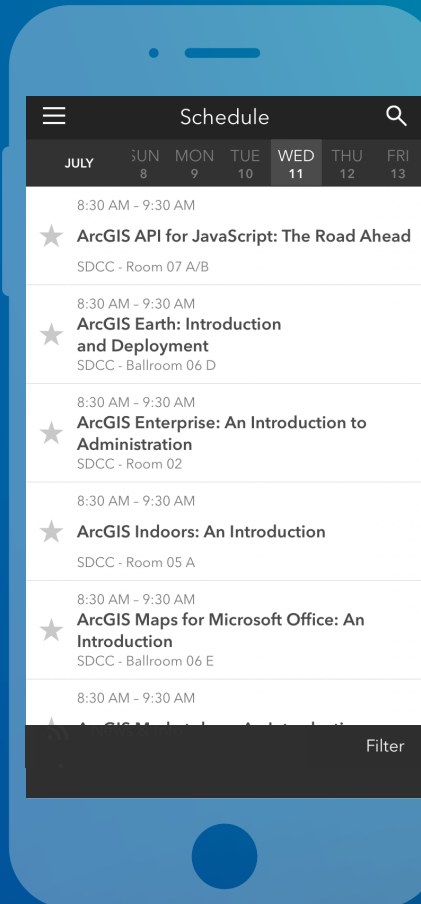
THE
SCIENCE
OF
WHERE

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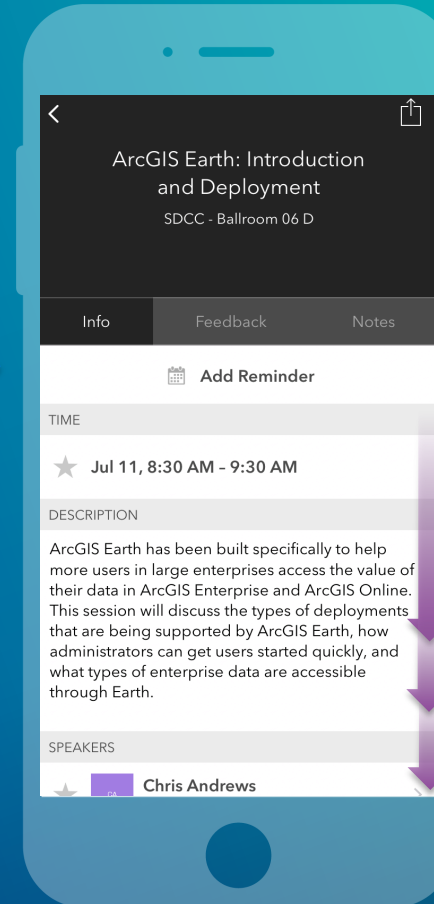
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