Faking out XHR and Timer Calls

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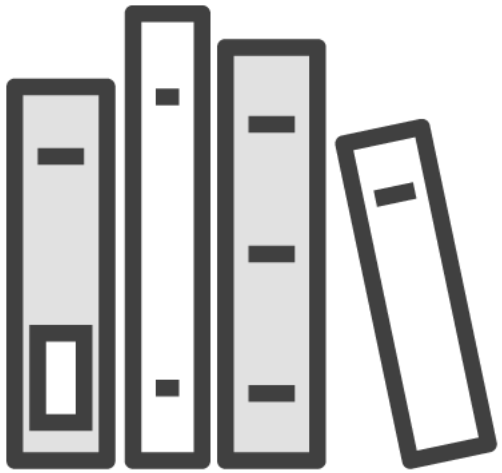
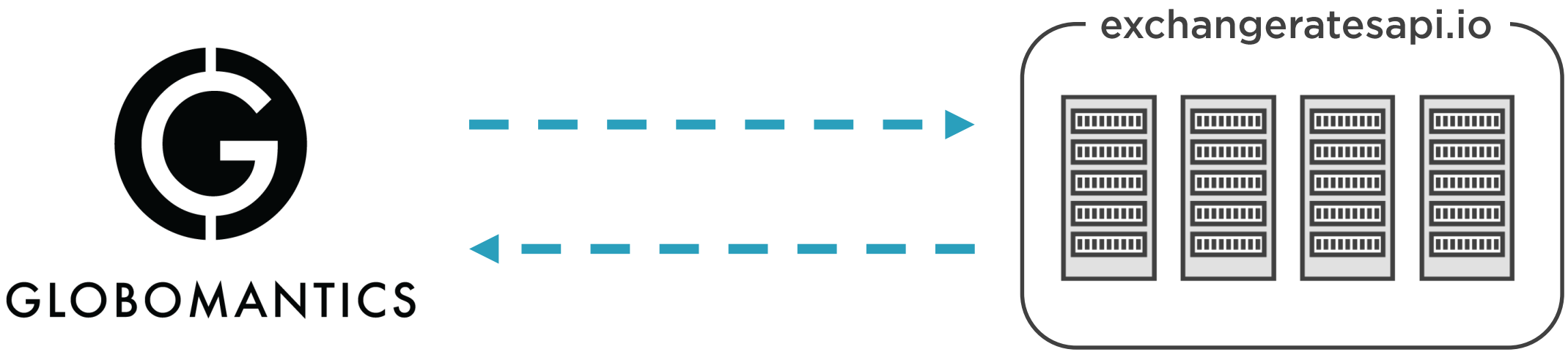
Problem: Making External API Calls

GLOBOMANTICS

Core Competency



Extraneous


GLOBOMANTICS
exchangeratesapi.io

```
var settings = {
  url: 'https://exchangeratesapi.io/api/latest?base=USD',
  method: 'GET'
};

$.ajax(settings).done(...)
```

Currency Conversion

Running Tests in the Browser

Making a Fake Request

```
var settings = {
  url: 'https://exchangeratesapi.io/api/latest?base=USD',
  method: 'GET'
};

$.ajax(settings).done(...)
```

XMLHttpRequest

Creating a Fake Request

```
sinon.useFakeXMLHttpRequest();
```

Capturing Requests

```
xhr.onCreate = (req) => {
    requests.push(req);
};
```

FakeXMLHttpRequest Properties

URL

Method

Headers

Body

Username

Password

Request Actions

Responding to a Request

```
request.respond(200, {'Content-Type': 'application/json'},
'{title: "Don\'t Waste Your Life"}’);


request.setStatus(200);

request.setResponseHeaders({'Content-Type':
'application/json'});

request.setResponseBody('{title: "Don\'t Waste Your
Life"}');


request.respond();
```

Demo

Faking out XHR

Demo: Fake XHR

Faking a Server

Multiple Requests

```
$.ajax('/user/1', () => {});
$.ajax('/roles', () => {});
$.ajax('/locations', () => {});

$.ajax({url: '/user/1', method: 'PUT', data: {}},
    () => {});
```

Required Actions for Requests

Creating a Server

```
sinon.createFakeServer();
```

Setting up Responses

```
server.respondWith('https://exchangeratesapi.io/api/latest?
base=USD',

[200,

    { 'Content-Type': 'application/json' },

    '{ "rates": {"AUD": 1}}'

]);
```

respondWith Options

(method, url, response)

(urlRegEx, response)

(method, urlRegEx, response)

(response)

Responding to Requests

```
server.respondWith('https://exchangeratesapi.io/api/latest?
base=USD', response);

getPrices(10, 'AUD', callback);

server.respond();
```

Configuring the Server

```
const server = sinon.createFakeServer({
    autoRespond: true
});
```

Configuring the Server

```
const server = sinon.createFakeServer({
    autoRespond: true
});
```

```
const server = sinon.createFakeServer({
    autoRespondAfter: 500
});
```

Don’t forget to .restore()

Faking out XHR is simpler

Faking a Date

Checking a Date

```
return controller.create(req, res).then(() => {
    expect(userCreate.calledWith(sinon.match({
        customerSince: sinon.match.date
    }))).to.eql(true);
});
```

Checking a Date

```
return controller.create(req, res).then(() => {
    expect(userCreate.calledWith(sinon.match({
        customerSince: sinon.match.date
    }))).to.eql(true);
});
```

Time to execute code can vary

Creating a Fake Timer

```
const timer = sinon.useFakeTimers();
```

Creating a Fake Timer

```
const timer = sinon.useFakeTimers();

console.log(new Date()); //1970-01-01T00:00:00.000Z
```

Creating a Specific Fake Timer

```
const timer = sinon.useFakeTimers(new Date(2015, 10, 1));
console.log(new Date()); //2015-11-01T05:00:00.000Z
```

Advancing the Timer

```
timer.tick('01:20');
console.log(new Date()); //2015-11-01T05:01:20.000Z
```

Don’t forget .restore()

Demo: Cleaning up Date Verification

Coming Up

You've learned all the doubles and fakes!

Sinon sandboxes