

# ember: when the lights go on

@grandazz

[github.com/achambers](https://github.com/achambers)



**Chandler Bing**

**Hubert Behaghel**

@behaghel



Following

@grandazz oh and until you come with a better name, your talk will be titled "How Ember.js saved my life" in the programme :-)

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# how ember saved my life

@grandazz

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# ~~how ember saved my life~~

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# ember: when the lights go on

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A grayscale photograph of a penguin standing in shallow water, facing away from the camera. The penguin's dark back is visible, and its white belly is partially exposed. It appears to be looking towards the horizon. The background is a soft-focus view of the ocean and sky.

Wenguins



A close-up photograph of a baby with light brown hair and blue eyes. The baby is wearing a green bandana with white stars and the words "LITTLE CASINO SPECIALS" printed on it. The baby is being held by an adult whose hands and grey sweater are visible. In the background, a man with a beard and a woman are standing near a wooden structure, possibly a porch or a stall. The overall atmosphere is casual and suggests a family gathering or a vacation.

Noah update



this is not

*an ember is better than everything else*

presentation

# browser dev boiled down

(shamelessly borrowed from @ryanflorence)

interacting with data stores

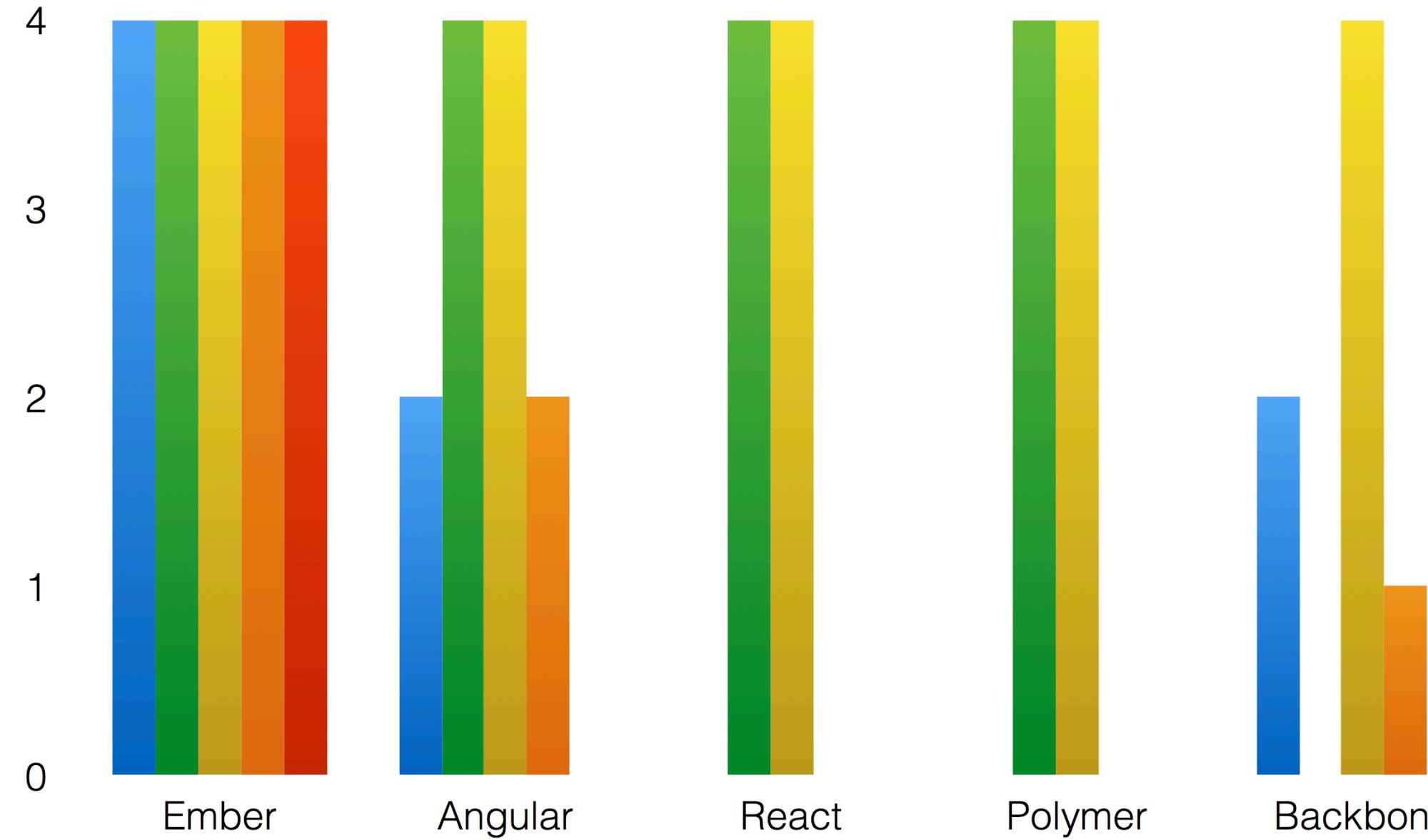
rendering data to ui

responding to user interaction

router & urls

project stuff: file organisation, build tools etc

■ data ■ rendering ■ user interaction ■ routing ■ project



How concerned the library is with the task, not an opinion on how good it is at it

our journey with  
ember

**lightbulb moments**

we didn't just jump in

we needed to

validate

the switch







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# Service Status

We've found a problem with your broadband set up

Our online checks tell us that your broadband performance could be improved

Fix it now

# Service Status

Hi, here's the current network status for your Sky services:

## Sky Broadband & Talk

▼ See more details

## Sky TV

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More Sky TV help

## Sky Go

Resolve Sky Go issues  
Get started with Sky Go

Issues



Checking Service



No known issues



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Issues



## Checking Service



## Sky Go

[Resolve Sky Go issues](#)  
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No known issues



Get in touch

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[Fix problems with your phone](#)  
[Fix Sky Go Issues](#)

```
// app/assets/javascripts/application.js

function bindViewMoreDetailsLinks() {
  $('.more-details').hide();

  $('.view-more').click(function(e) {
    e.preventDefault();

    var viewMoreLink = $(this);
    var moreDetails = viewMoreLink.parents('.issue').find('.more-details');

    if (moreDetails.is(':visible')) {
      moreDetails.hide();
      viewMoreLink.text('More details');
    } else {
      moreDetails.show();
      viewMoreLink.text('Less details');
    }

    viewMoreLink.toggleClass('opened');
  });
}
```

```
// app/assets/javascripts/application.js

function toggleElementsForEditors() {
  $.ajax({
    url: '/sessions/current',
    dataType: 'json',
    success: function(data) {
      var loggedInStatus = data.logged_in;
      toggleNewIssueLink(loggedInStatus);
      toggleHeader(loggedInStatus);
      toggleAdditionalLinks(loggedInStatus);
      toggleSidebar(loggedInStatus);
      toggleFooter(loggedInStatus);
      toggleEditIssueLinks(loggedInStatus);
      toggleResolveIssueLinks(loggedInStatus);
    }
  });
}
```

```
// app/assets/javascripts/application.js

function toggleHeader(loggedInStatus) {
  $('#skycom-masthead-wrapper').toggleClass('hidden', loggedInStatus);
}

function toggleAdditionalLinks(loggedInStatus) {
  $('.additional-links').toggleClass('hidden', loggedInStatus);
}

function toggleSidebar(loggedInStatus) {
  $('.sidebar').toggleClass('hidden', loggedInStatus);
}

function toggleFooter(loggedInStatus) {
  $('#skycom-footer-wrapper').toggleClass('hidden', loggedInStatus);
}

function toggleEditIssueLinks(loggedInStatus) {
  $('.btn.edit-issue').toggleClass('hidden', !loggedInStatus);
}

function toggleResolveIssueLinks(loggedInStatus) {
  $('.btn.resolve-issue').toggleClass('hidden', !loggedInStatus);
}
```



A horizontal row of five lightbulbs against a white background. All five lightbulbs are clear glass with visible screw bases. The central lightbulb is illuminated with a bright yellow glow, while the other four are dark and non-lit.

**data based ui manipulation**

```
// app/views/issues/index.html.haml

function microfilterCheck() {
  var deferred = $.Deferred();

  $.getJSON('/sessions/current', function(json) {
    if (json.logged_in) {
      deferred.resolve()
    } else {
      Hub.runMicrofilterTest()
        .done(function() { deferred.reject(); })
        .fail(function() { deferred.resolve(); });
    }
  });
}

return deferred;
}
```

```
// app/views/issues/index.html.haml

function restrictionCheck() {
  var deferred = $.Deferred();

  $.getJSON('/customers/current', function(json) {
    if (json.customer.has_debt_restriction) {
      deferred.reject('debt');
    } else if (json.customer.has_high_spend_restriction) {
      deferred.reject('spend');
    } else {
      deferred.resolve();
    }
  }, function() {
    deferred.resolve();
  });

  return deferred;
}
```

```
// app/views/issues/index.html.haml

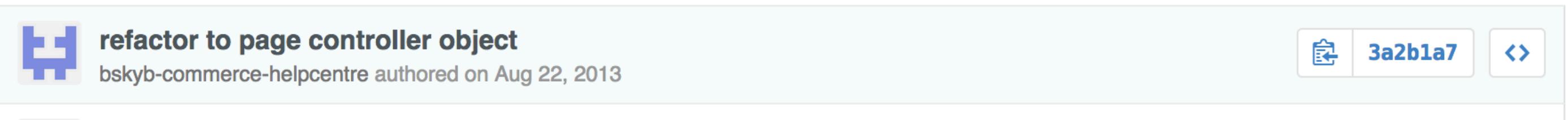
$(function() {
  var microfilterDeferred = microfilterCheck()
  var restrictionDeferred = restrictionCheck()

$.when(microfilterDeferred, restrictionDeferred).always(function() {
  var args = Array.prototype.slice.call(arguments);

  if (restrictionDeferred.state() == 'rejected') {
    if (args.indexOf('spend') !== -1) {
      $('.high-spend-restriction-alert').removeClass('hidden');
    } else if (args.indexOf('debt') !== -1) {
      $('.debt-restriction-alert').removeClass('hidden');
    }
  } else if (microfilterDeferred.state() == 'rejected') {
    $('.microfilter-alert').removeClass('hidden');
  }

  showIssues();
});
});
```

then the very next commit...



// app/views/issues/index.html.haml

```
$(function() {  
  IssuesIndexController.init();  
});
```





controllers

```
// app/assets/javascripts/User.js
```

```
var User = {
  isAnEditor: function() {
    var deferred = $.Deferred();
    $.ajax({
      dataType: 'json',
      url: '/sessions/current',
      success: function(data) {
        deferred.resolve(data.logged_in);
      },
      error: function() {
        deferred.reject();
      }
    });

    return deferred.promise();
  }
}
```

```
// app/assets/javascripts/Diagnostics.js
```

```
var Diagnostics = {  
  run: function() {  
    //run some diagnostics goodness  
  }  
}
```

```
// app/assets/javascripts/CBS.js
```

```
var CBS = {  
  run: function() {  
    //run some monstrosity of a service,  
    //return a massive payload we don't need  
    //and take forever to do so  
  }  
}
```





models  
&  
interacting with data stores

```
// app/assets/javascripts/views/IssueView.js
```

```
(function() {
  window.IssuesView = {
    render: function() {
      this._showIssues();
      this._toggleStatusMessage();
    }
    // ...snip...
  };
})();
```

```
// app/assets/javascripts/views/DebtAlertView.js
```

```
(function() {
  window.DebtAlertView = {
    render: function() {
      this._showAlert();
      this._hideProducts();
      this._hideSidebar();
      this._informScreenReader();
    }
    // ...snip...
  };
})();
```





**views**

```
{!!-- app/assets/javascripts/templates/outages.hbs --//}

{{#each outages}}
  <article class="issue">
    <h3>{{description}}</h3>
    <p>
      <span class="label">Date issue was reported</span>
      <br>
      <strong>{{startedOn}}</strong>
    </p>
  </article>
{{/each}}
```



A horizontal row of five standard incandescent lightbulbs, all glowing with a bright yellow light. The bulbs are evenly spaced and extend from the left edge of the frame towards the right. Overlaid on the center of the third bulb is the word "templating" in a bold, black, sans-serif font.

templating

we started to build our own framework

we started to build our own framework

**BADILY**

Use a framework, or don't. Either way, you will.

– *Someone Awesome*

# convention over configuration

```
this.resource('posts', { path: '/posts' })
```

PostsRoute

PostsController

PostsView

posts.hbs

# no more globals

```
var Diagnostics = {  
  run: function() {  
    // do stuff  
  }  
};
```

```
window.IssuesIndexController = {  
  init: function() {  
    // do stuff;  
  }  
};
```

# no more globals

```
ServiceStatus.GoIssuesController = Em.ArrayController.extend({  
  status: function() {  
    //do stuff  
  }.property('hasProblem')  
});
```

```
ServiceStatus.Outage = DS.Model.extend({  
  //attributes here  
});
```

```
ServiceStatus.SsAccordionComponent = Em.Component.extend({  
  collapsed: false,  
  //other properties here  
});
```

# data binding

```
// models/tv_issue.js

ServiceStatus.TvIssue = DS.Model.extend(
  name: DS.attr('string')
);

// controllers.tv_issues.js

ServiceStatus.TvIssuesController = Em.ArrayController.extend({});

<!-- templates/tv_issues.hbs -->
<ul>
  <#each>
    <li>{{name}}</li>
  </each>
</ul>
```

lightbulb moments

didn't stop

there







**leave your assumptions  
at the door**

# rails

router

controller

model

view

# rails

router

controller

model

view

# ember

router

controller

model

view

template

route

# rails

router

controller

model

view

# ember

router

controller

model

view

template

route

# rails

router

controller

model

view

# ember

router

controller

model

template

view

route

# rails

router

controller

model

view

# ember

router

route

controller

model

template

view







**don't fight the framework**

If something feels harder than it  
should be, it probably is. You're  
probably doing it wrong.

– *Someone Awesome*







ui error logging

# ui error logging

```
Ember.onerror = handleError;
```

```
Ember.RSVP.on('error', handleError);
```

```
function handleError(error) {
  Em.$.ajax('/error', {
    type: 'POST',
    data: { stack: error.stack }
  });
}
```







build tools

# ember-cli

npm install -g ember-cli

`ember-cli`

# file organisation

`ember new my-project`

- /app
  - /components
  - /controllers
  - /helpers
  - /models
  - /routes
  - /styles
  - /templates
  - /views
- app.js
- index.html
- router.js
- /config
- /public
- /tests

`ember-cli`

`es6 modules`

ember-cli

testing

ember-cli

asset pipeline

ember-cli

generators

ember-cli

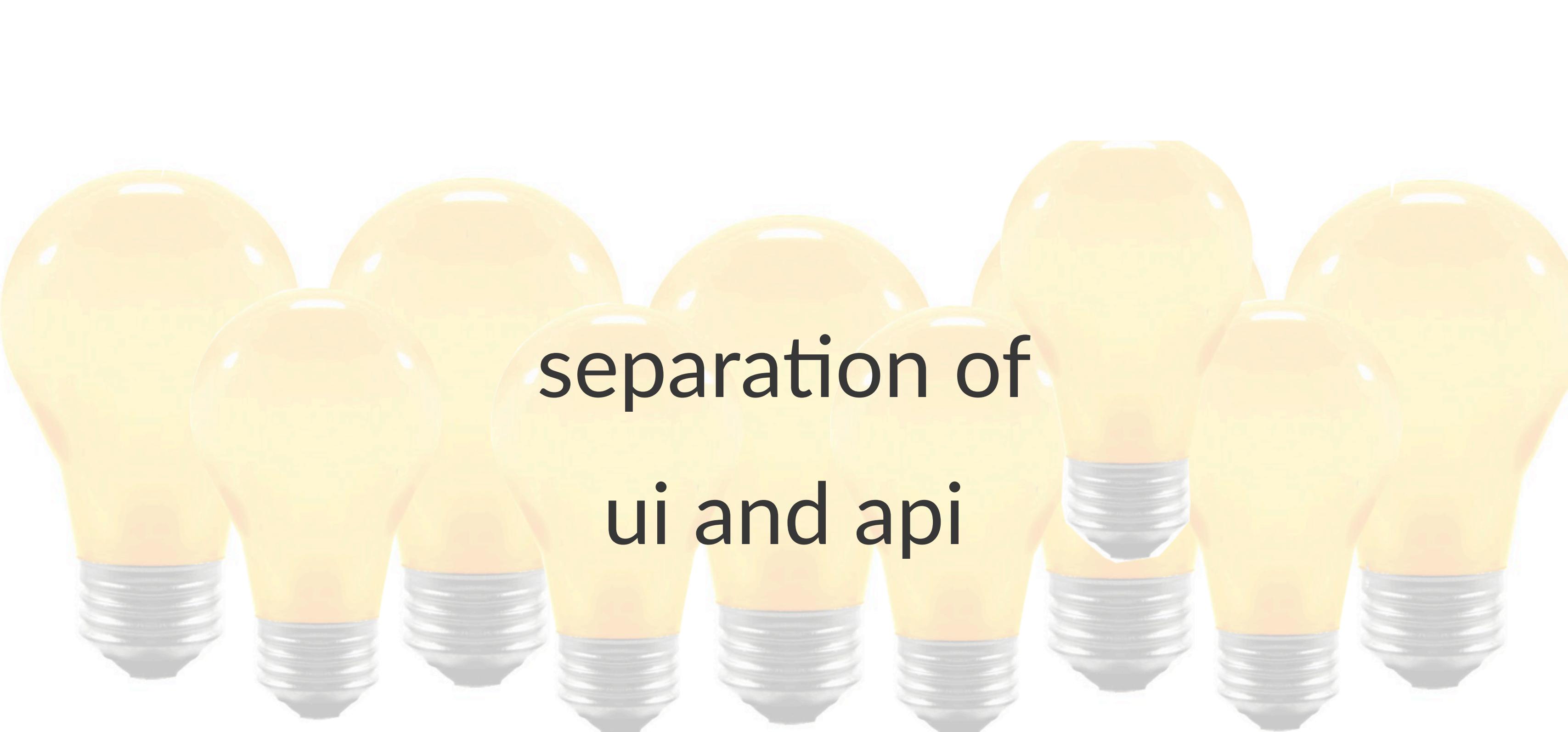
http-mock server

ember-cli

addons







separation of  
ui and api

clearer separation between data  
and user interaction

think not of your api in terms of ui  
interactions, but in terms of data  
and relationships

your app is a  
client of your api





A horizontal row of ten yellow incandescent lightbulbs, all facing forward. They are arranged in a slightly staggered pattern. The background is a solid, light color.

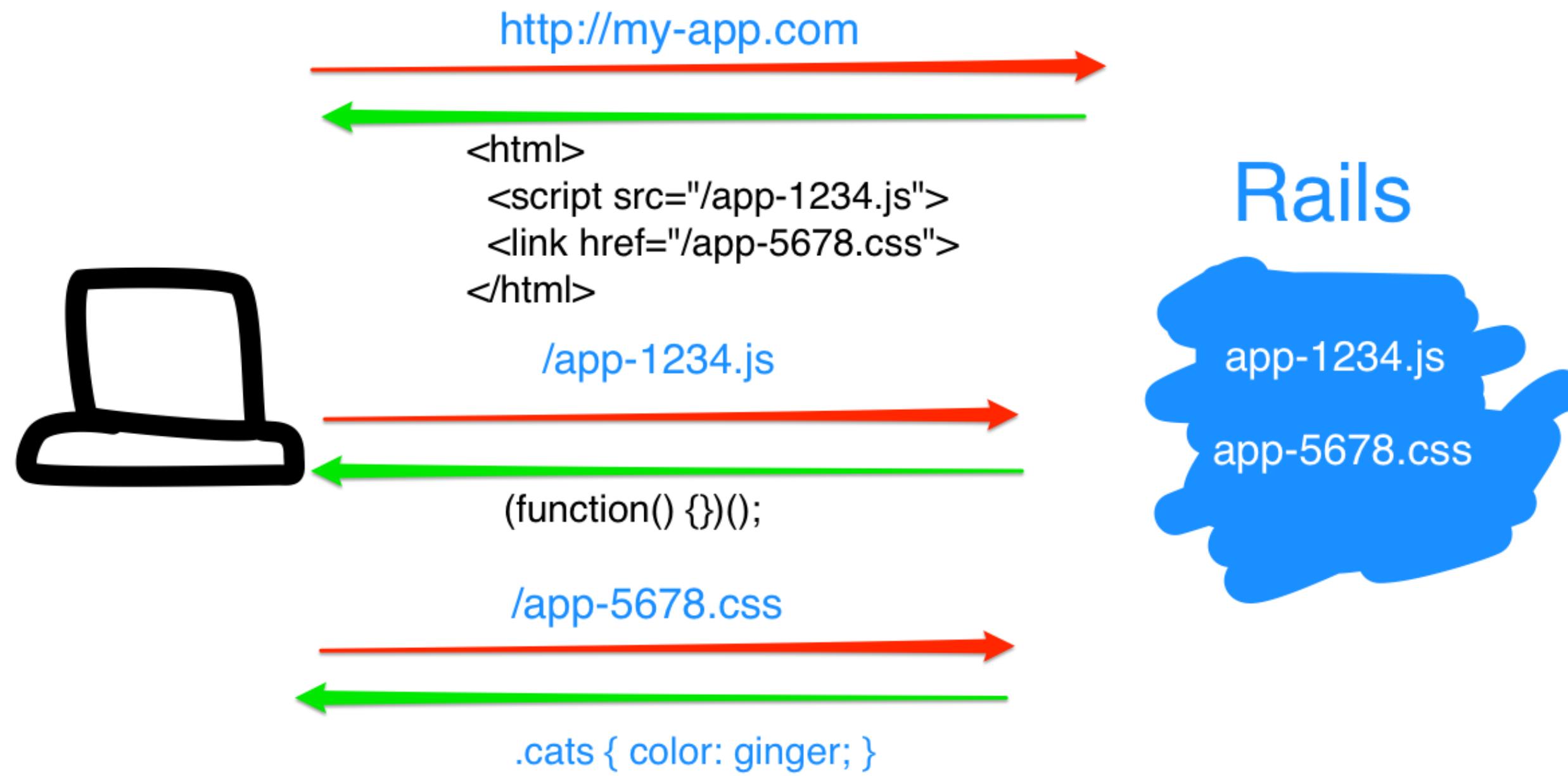
**deployment**

deploying to heroku  
and serving from rails  
is cool and all

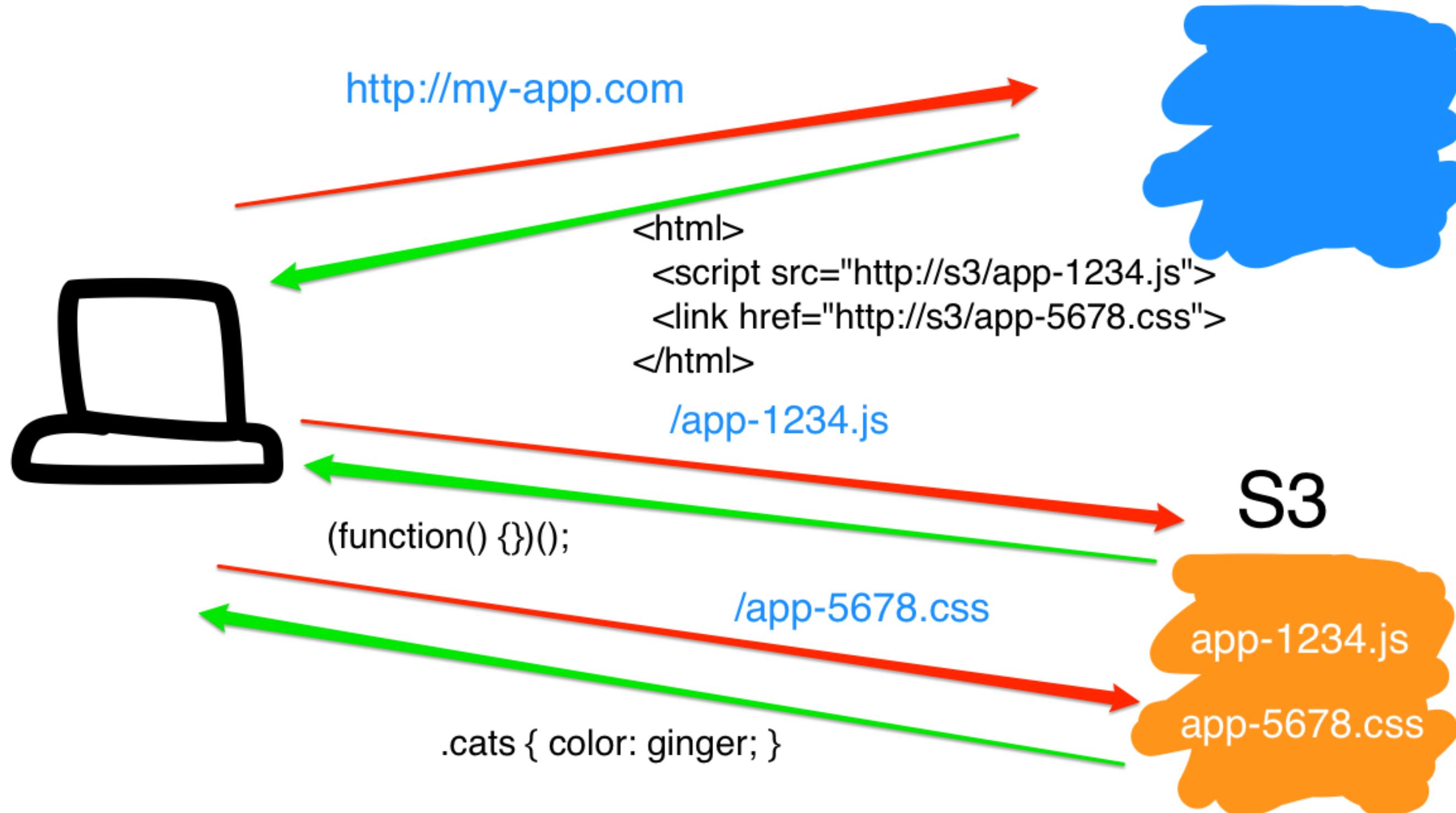
but we've been doing that for  
a long time

we can do

better



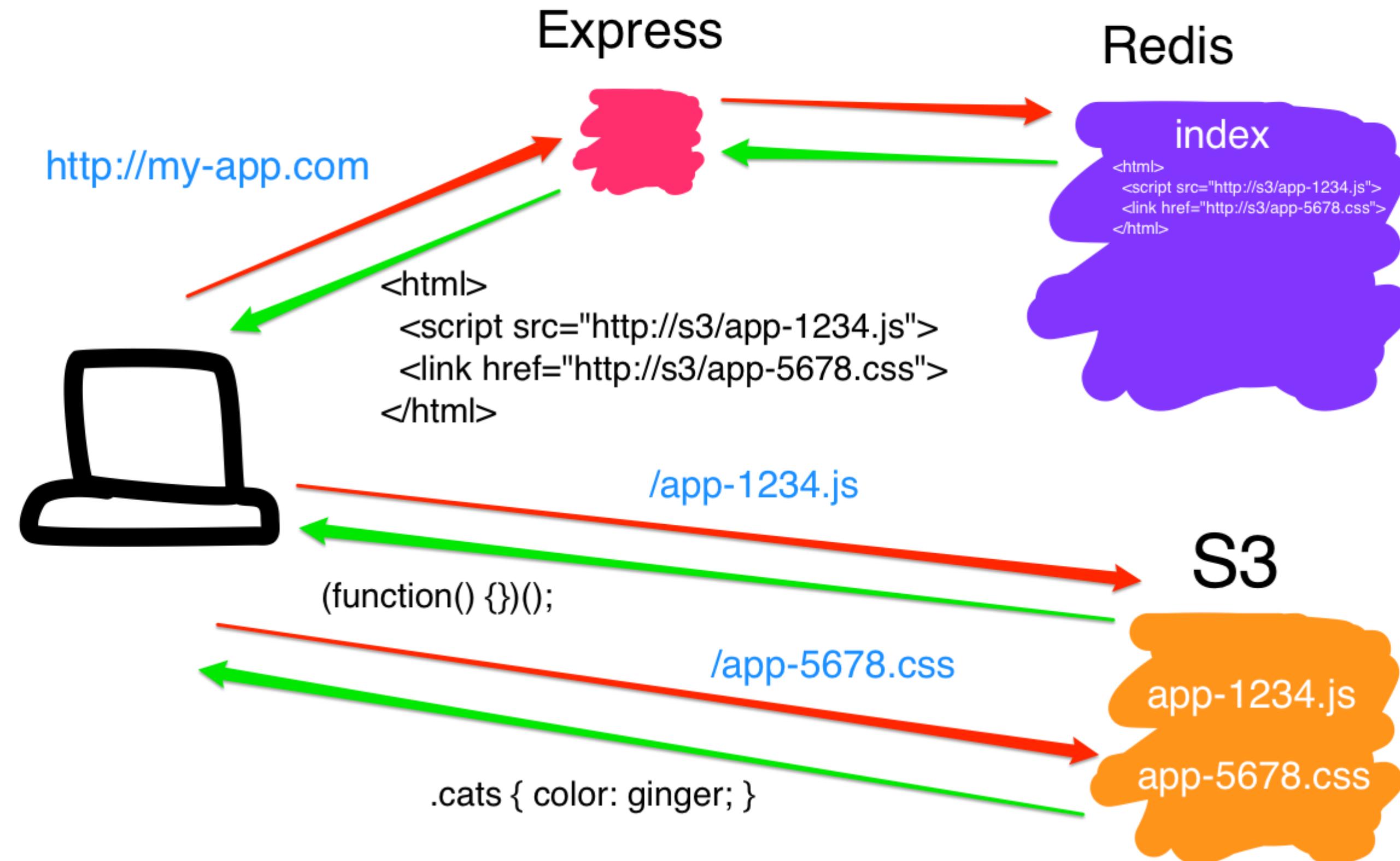
# Rails



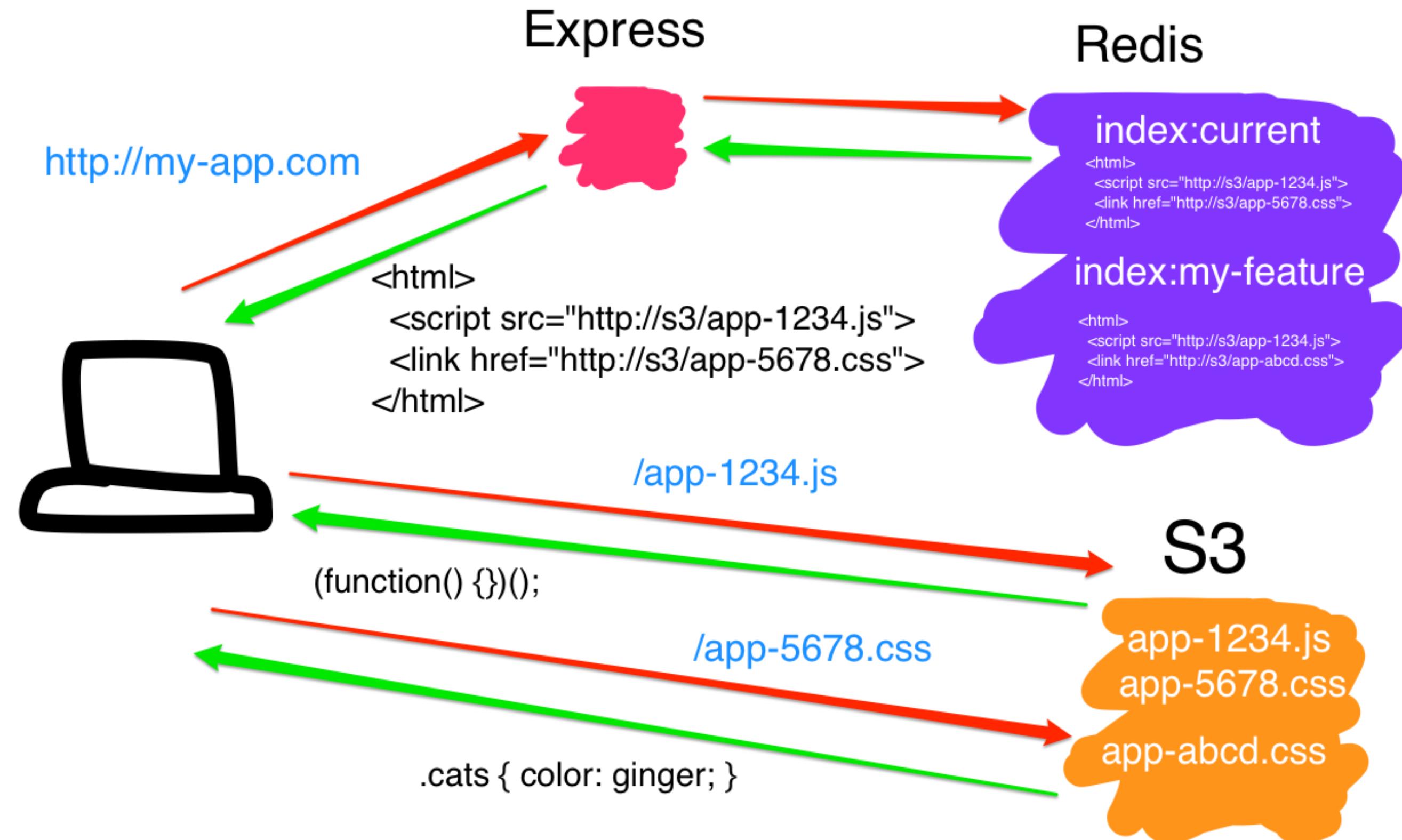
**index.html**

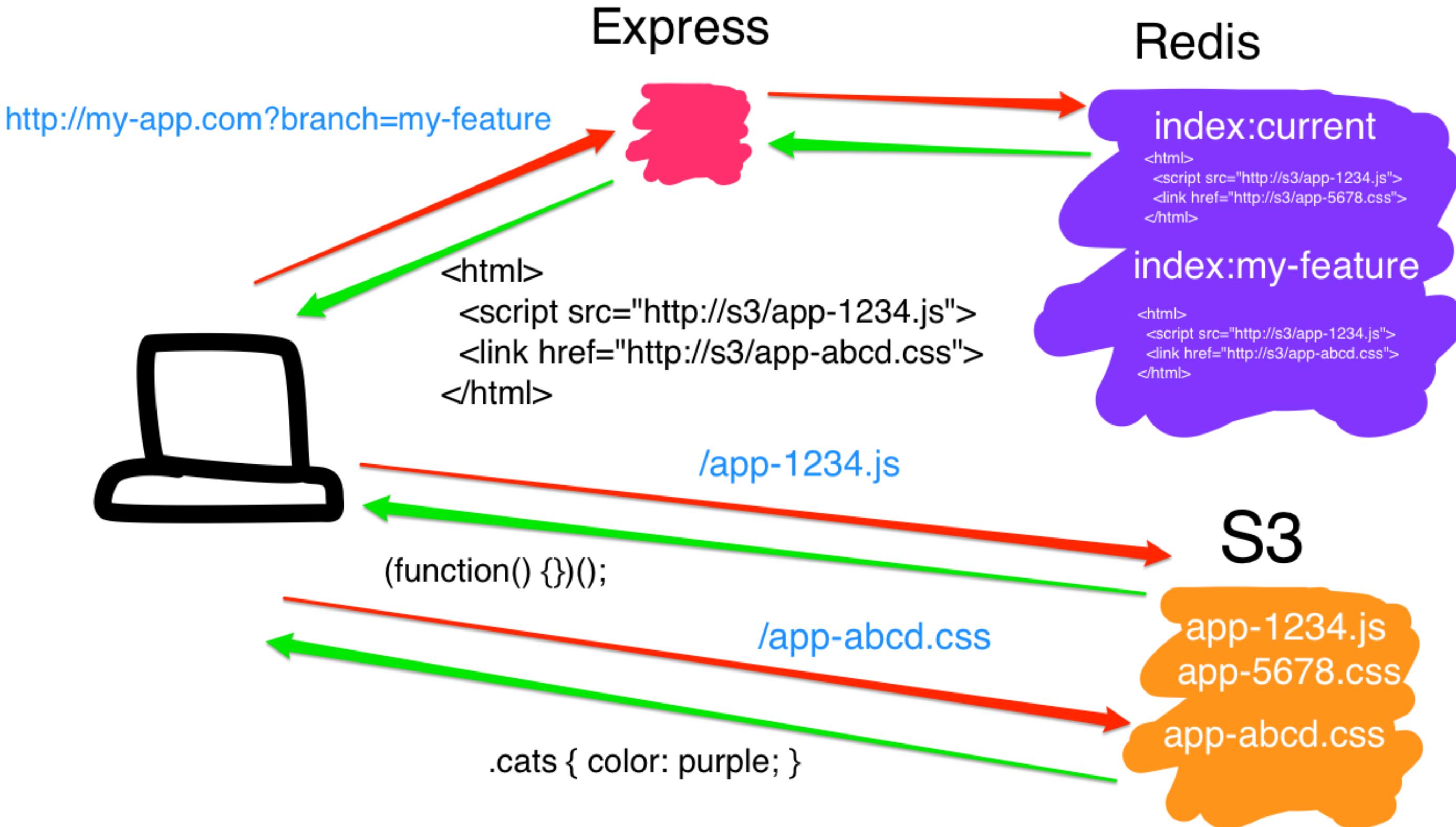
**app-1234.js**

**app-5678.css**



lets push this  
one step further





deployment becomes super quick

just push some static assets to S3

and push index.html into redis

not to mention cutting over





A row of ten yellow lightbulbs is arranged horizontally across the frame. The lightbulbs are unlit except for the fourth one from the left, which is brightly illuminated, casting a soft glow. They are set against a plain white background.

pact file testing

how do we test that changes  
to the api

how do we test that changes

to the api

don't break the ui?

pact (*noun*)

A formal agreement between  
individuals or parties.

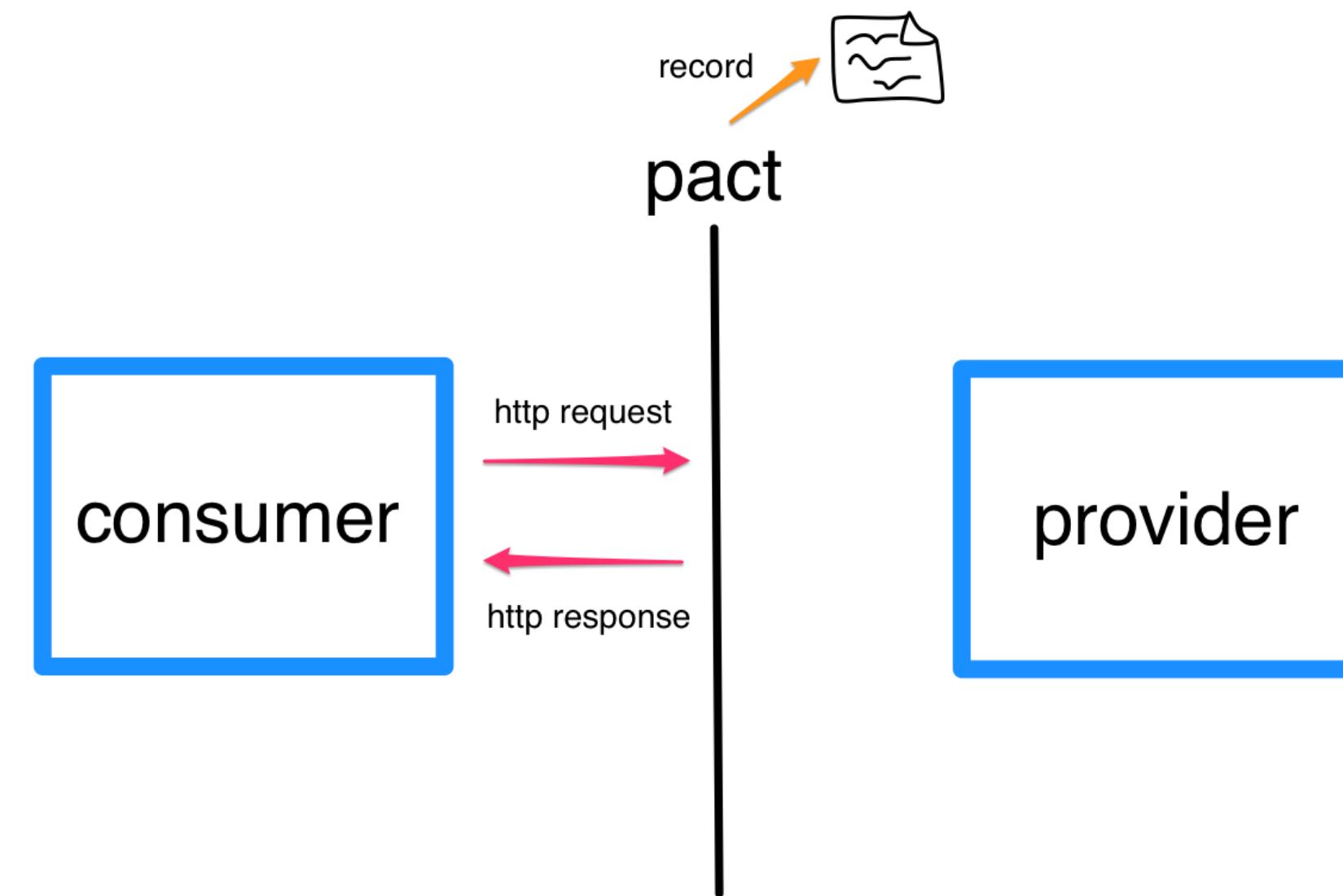
– *The Google*

the relationship of the web app consists of:

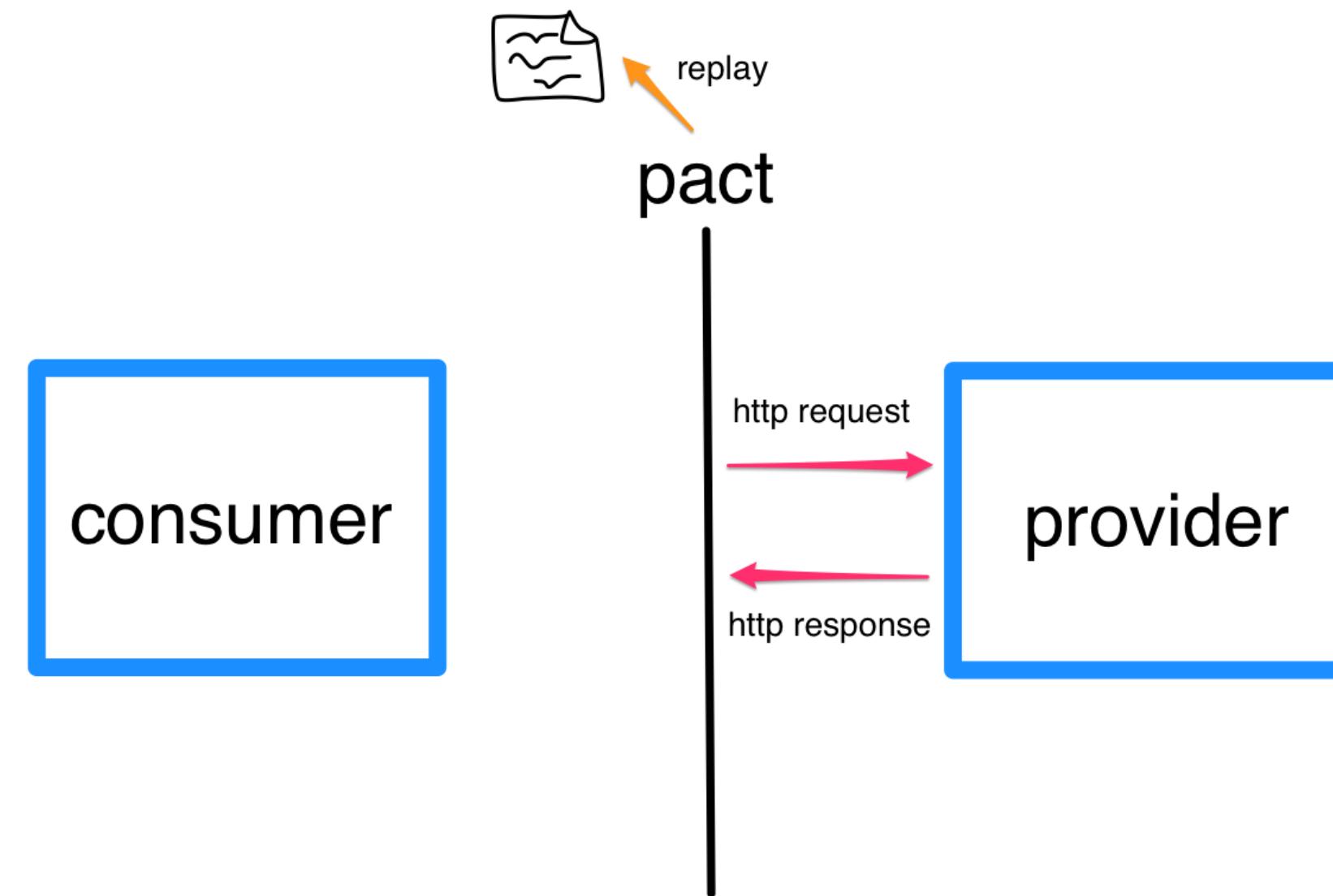
the consumer (ui)

the provider (api)

# Step 1 - Define the consumer expectations



# Step 2 - Verify expectations on provider

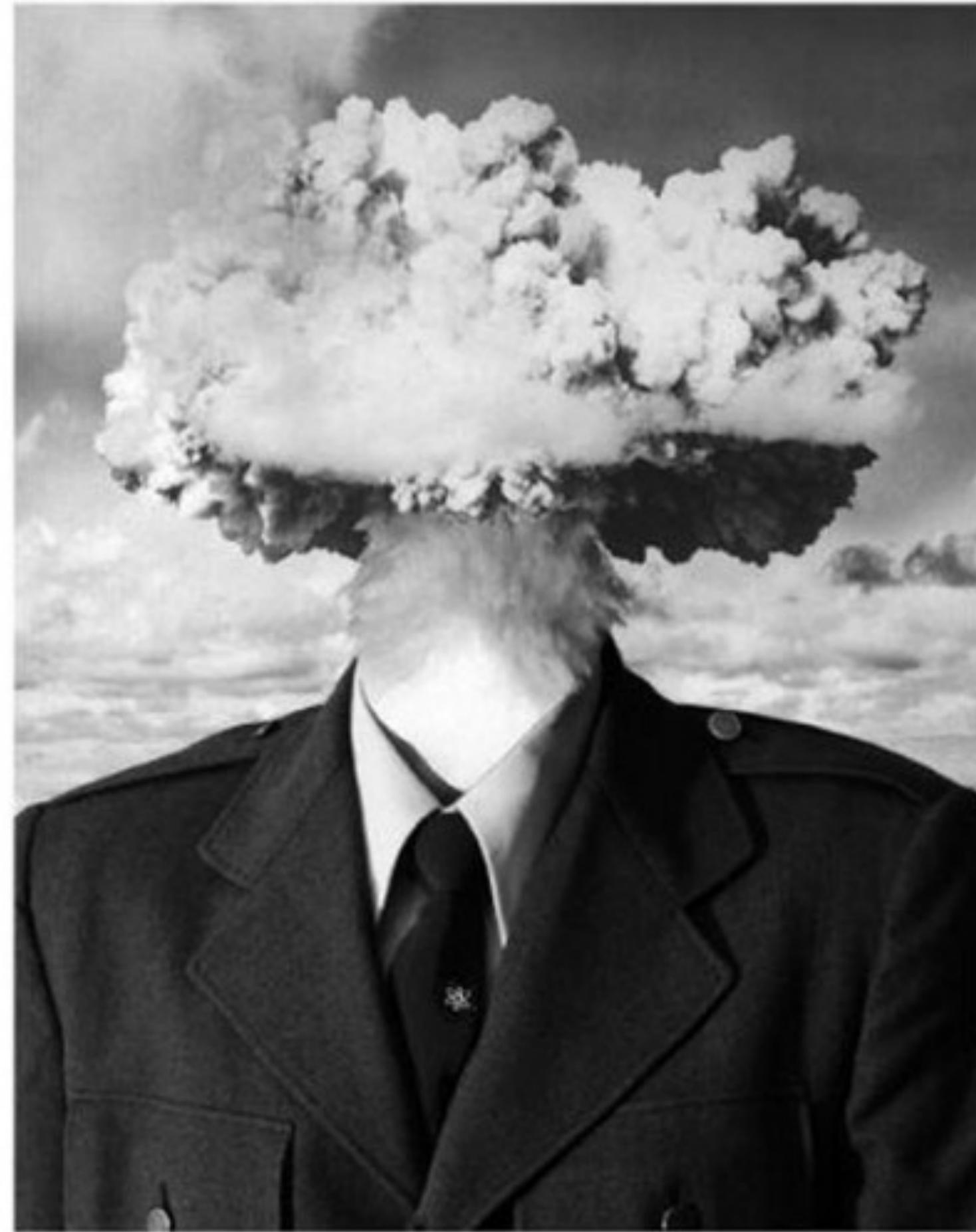


imagine if

CBS

verified their services against our pact files

every time they released?



Thats a wrap

@grandazz

[github.com/achambers](https://github.com/achambers)

# any questions?

@grandazz

[github.com/achambers](https://github.com/achambers)

thankyou