Ajax Basics

Typical Web Request

Web Server

Web Browser

1. URL Request to server
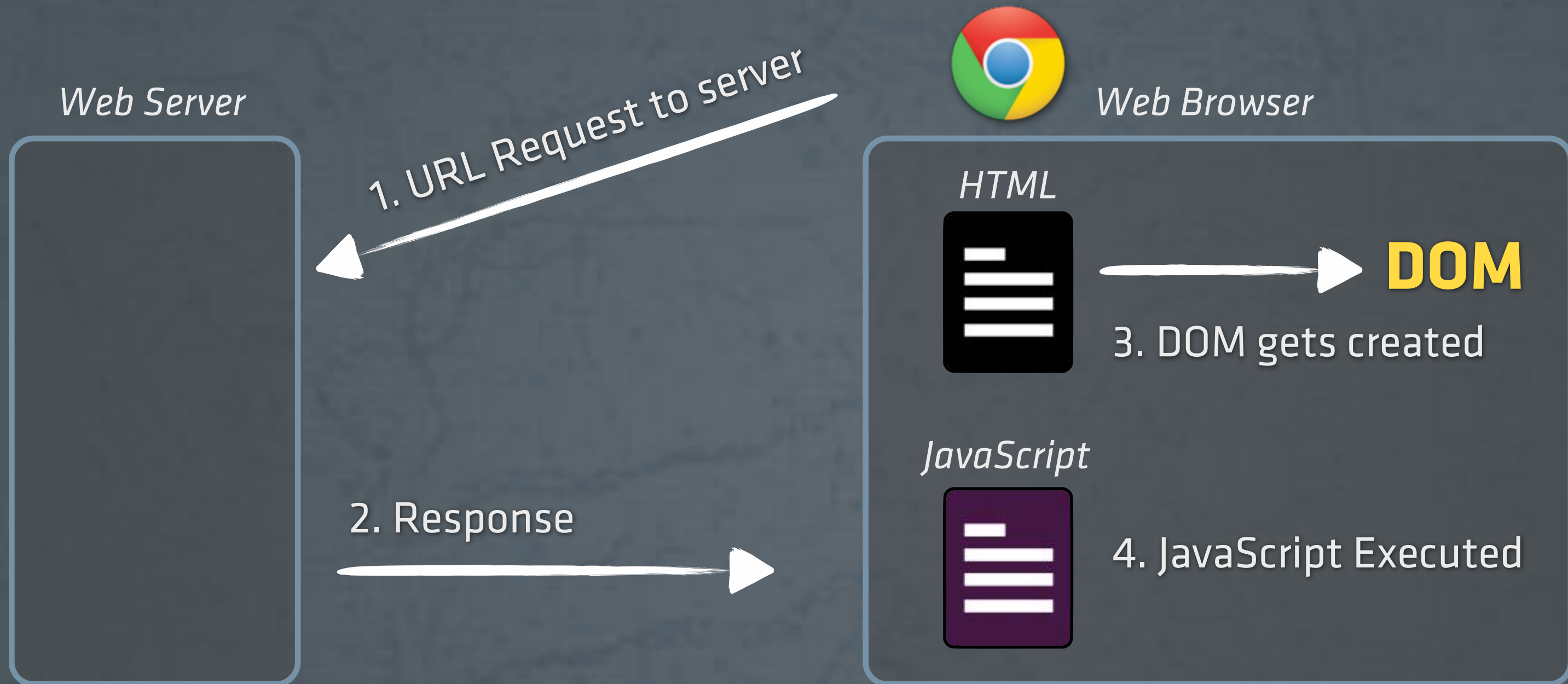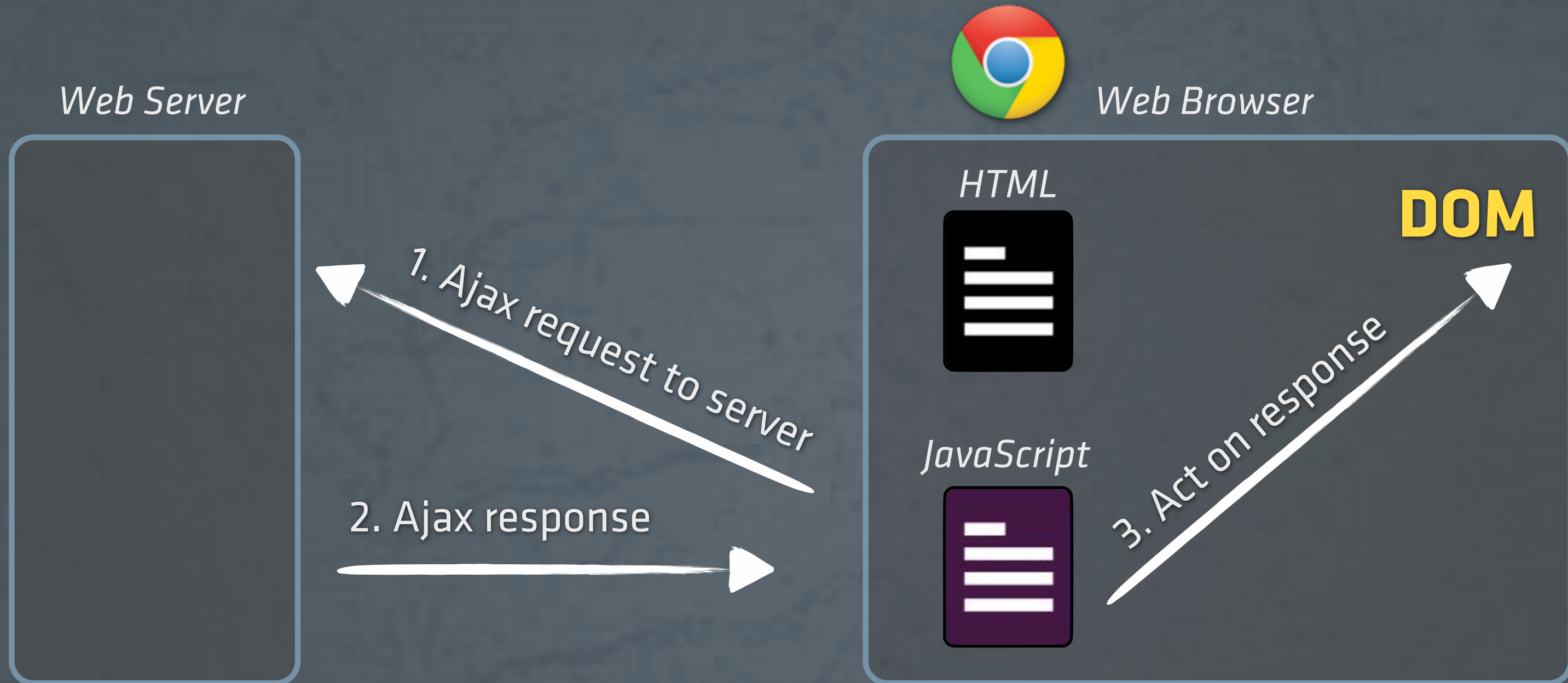
HTML

DOM

3. DOM gets created

2. Response

JavaScript

4. JavaScript Executed

Asynchronous JavaScript And XML "Ajax"

A client side technique for communicating with a web server.

Ajax Communication

Web Server

Web Browser

HTML

DOM

JavaScript

1. Ajax request to server

2. Ajax response

3. Act on response

jQuery Travels - Vacation Confirmation

Confirmations

Hawaiian Vacation 🏷️

Paid $399.99 on January 14, 2013.

FLIGHT DETAILS

Call us at 555-25937 to make a reservation today!

Previous Code

index.html

```html
<li class='confirmation'>
  <h3>Hawaiian Vacation</h3>
  <button>Flight details</button>
  <div class='ticket'>
    <a class='view-boarding-pass'>View Boarding Pass</a>
    <img src='/ticket-14836.png'/>
  </div>
</li>
```

How would we load the ticket from the server when the button is clicked?

Shows the hidden element when the button is clicked

application.js

```javascript
$('.confirmation').on('click', 'button', function(){
  $(this).find('.ticket').slideDown();
});
$('.confirmation .view-boarding-pass').on('click', function() {
  $(this).closest('.ticket').find('img').show();
});
```

Show boarding pass when link is clicked

Making our first AJAX call

application.js

```javascript
$('.confirmation').on('click', 'button', function(){
  $.ajax('http://example.org/confirmation.html', {
    success: function(response) {
      $('.ticket').html(response).slideDown();
    }
  });
});
```

Ajax Method

```
$.ajax(url[, settings])
```

Runs only when the server returns a successful response

The response which gets returned. Not a full webpage.

http://example.org/confirmation.html

```html
<div> ...
  <strong>Boarding Pass: </strong>
  <a href='#' class='view-boarding-pass'>View Boarding Pass</a>
  <img src='ticket.png' alt='Your boarding pass' class='boarding-pass' />
</div>
```

1 **Ajax Basics**

Using a relative URL for AJAX calls

application.js

```javascript
$('.confirmation').on('click', 'button', function(){
  $.ajax('confirmation.html', {
    success: function(response) {
      $('.ticket').html(response).slideDown();
    }
  });
});
```

Can be a relative URL

If you were on http://example.org/index.html, these requests would go to the same URL

```javascript
$.ajax('http://example.org/confirmation.html', ...);
```

1 **Ajax Basics**

jQuery Travels - Vacation Confirmation

Confirmations

Hawaiian Vacation 🏷

Paid $399.99 on January 14, 2013.

FLIGHT DETAILS

Call us at 555-25937 to make a reservation today!

Shorthand with $.get

```javascript
$.ajax('confirmation.html', {
  success: function(response) {
    $('.ticket').html(response).slideDown();
  }
});
```

Equivalent to $.ajax call above

```javascript
$.get('confirmation.html', function(response) {
  $('.ticket').html(response).slideDown();
});
```

Shorthand Method

```javascript
$.get(url, success)
```

1 Ajax Basics

Sending parameters with requests

Always fetching the same confirmation, no matter what trip

application.js

```javascript
$.ajax('confirmation.html', {
  success: function(response) {
    $('.ticket').html(response).slideDown();
  }
});
```

How would we do a request with a Confirmation Number?

```
confirmation.html?confNum=1234
```

1 **Ajax Basics**

Sending parameters with requests

application.js

```javascript
$.ajax('confirmation.html?confNum=1234', {
  success: function(response) {
    $('.ticket').html(response).slideDown();
  }
});
```

Equivalent to $.ajax call above

```javascript
$.ajax('confirmation.html', {
  success: function(response) {
    $('.ticket').html(response).slideDown();
  },
  data: { "confNum": 1234 }
});
```

JavaScript Object

Often the data in the request is dynamic

The flight number could be pulled from the HTML

```html
<div class='ticket' data-confNum='1234'>
```

```javascript
$.ajax('confirmation.html', {
    success: function(response) {
        $('.ticket').html(response).slideDown();
    },
    data: { "confNum": $(".ticket").data("confNum") }
    }
});
```

Still results in the same URL request

```
confirmation.html?confNum=1234
```