AJAX

Module 4 Week 9

Notes Repo: https://github.com/C-Shi/lhl-flex-lecture

Learning Objectives

AJAX Concept

AJAX Example

Build Ajax with jQuery

Discussion

What is AJAX

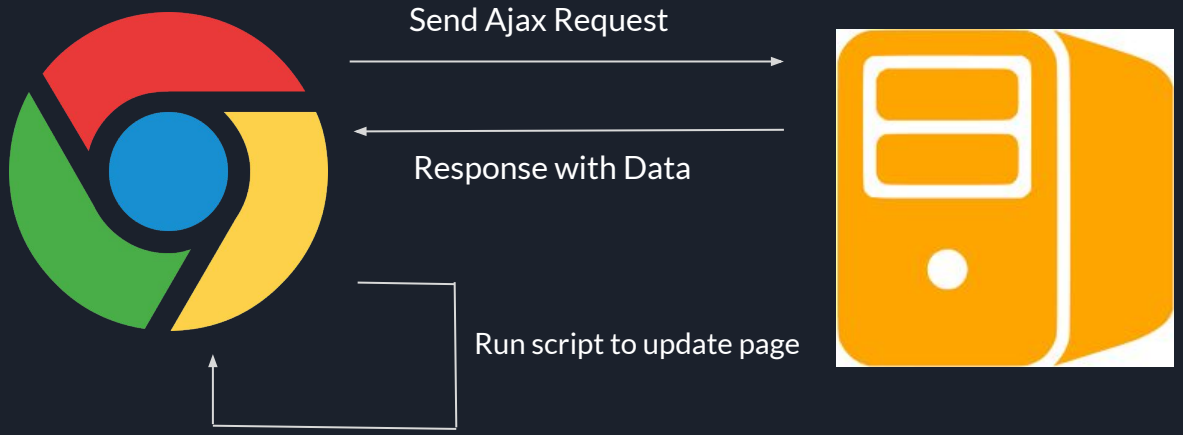
Asynchronous

JavaScript

And

XML

request



Ajax allow browser to exchange data and update the page without refreshing

Sending AJAX

Legacy

```
var xhttp = new XMLHttpRequest();

xhttp.onreadystatechange = function() {
  if (this.readyState == 4 && this.status == 200) {
    console.log(xhttp.responseText);
  } else if (this.readyState == 4 && this.status >= 400) {
    console.log('http error')
  }
}

xhttp.onerror = function() {
  console.log('There is a network error')
}

xhttp.open("GET", "https://jsonplaceholder.typicode.com/todos/1", true)
xhttp.send()
```

Modern

```
$.get('https://jsonplaceholder.typicode.com/todos/1')
  .then(response => console.log(response))
  .catch(err => console.log(err)


fetch('https://jsonplaceholder.typicode.com/todos/1')
  .then(response => response.json())
  .then(data => console.log(data))
  .catch(err => console.log(err))
```

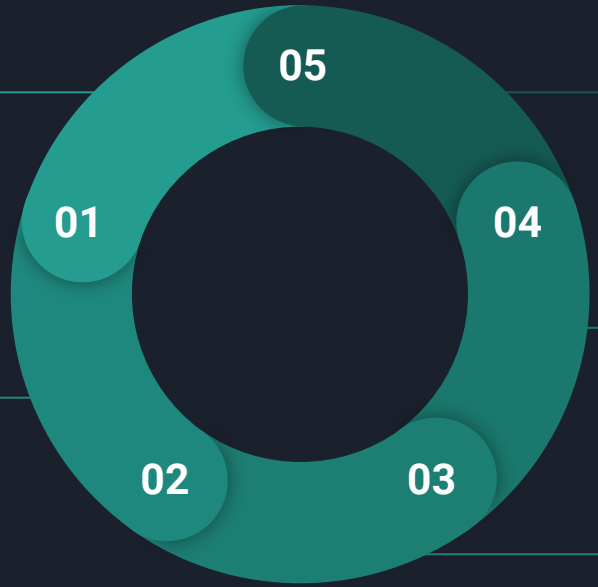
AJAX implementation

Setup

Load the initial HTML Page and JavaScript file

Find Tool

Determine what tool/library to use for ajax and import it if necessary



Think about trigger

Determine when to fire the request. Usually on an DOM event like when clicking a button

Send request

Find where to send, and what to send in your request

Actions to update

Run script on response data to update the page without refreshing

Exercise # 1

As a user,

When I click the Get More Post button,

I should see a new post added to the post list,

with an incremented ID, a title and a post body

Exercise # 2

As a User,

When I fill the form and click post,

I should create a new post,

and the new post should be added to the page,

and the form should reset

Discussion

- When to Use AJAX
- When to avoid AJAX
- When to use AJAX with caution

Reasons to Use AJAX	**Reasons to Avoid AJAX**	**Things to Consider**
Client-side App/API	Browser History	CORS
Perceived performance	SEO Index	Reconstructed entire page/data
Better User Experience	target client use outdated Browser	Response Type: JSON vs HTML