UNAERP

Universidade de Ribeirão Preto

Campus Ribeirão Preto - Campus Guarujá

Programação para Web II

JavaScript

Prof. Eliézer Zarpelão

Schedule

- History

- Concepts
  - server-side/client-side
  - DOM

- Conventions JS

- Challenge

"Part of being a good steward to a successful project is realizing that writing code for **yourself** is a **bad Idea**™. If thousands of people are using your code, then write your code for maximum **clarity**, not your **personal preference** of how to get clever within the spec."
Idan Gazit

Client-side vs Server-side

- Web pages more dynamic

- Customized content based on user input

- Where application code runs

Server-Side script

```php
<?php
    include('functions.php');
    showTop('Home');
?>
<!-- The main body of your web page, in HTML, will go here -->
<?php
    showBottom();
?>
```

Client-side Scripts

- JavaScript / VBScript

- Older browsers don't support them

- Newer browsers allow users to disable scripts

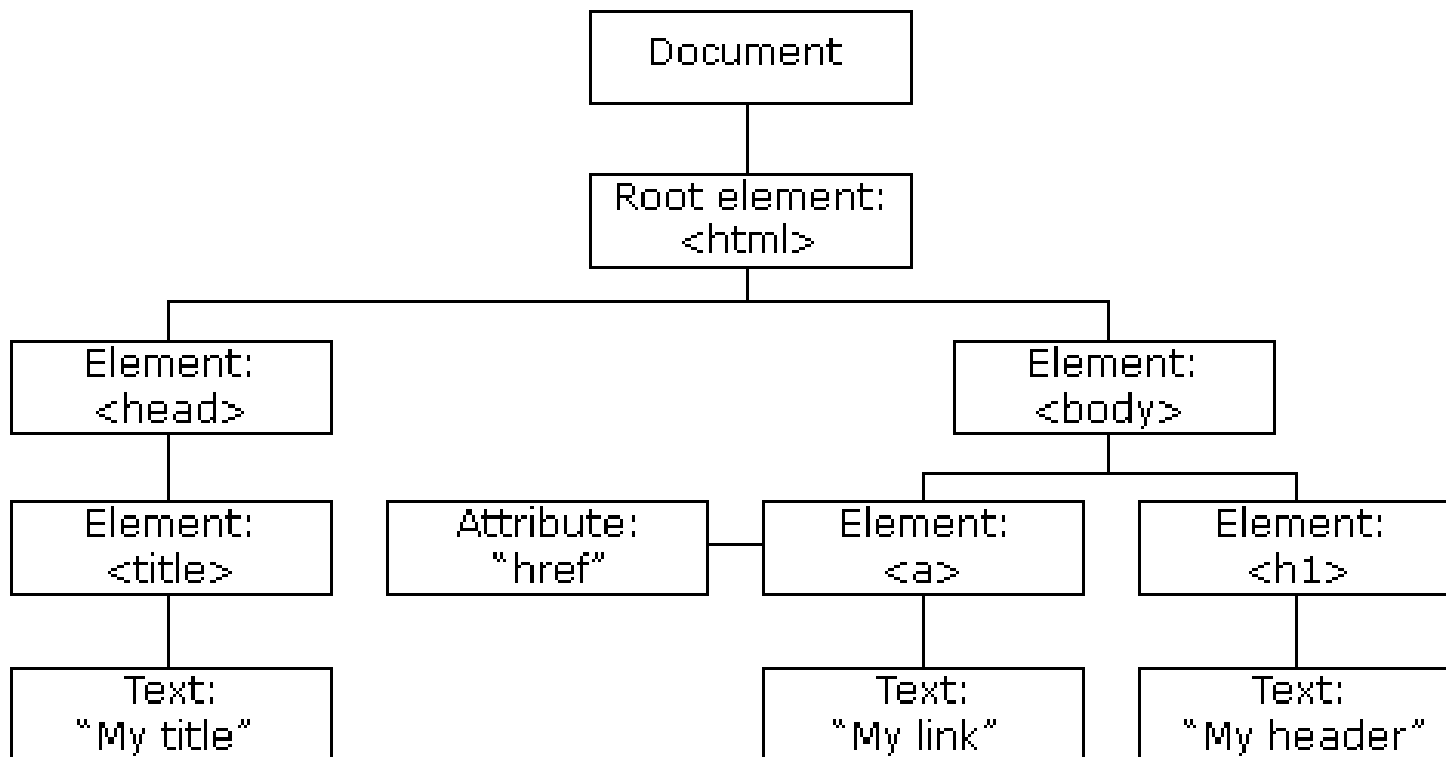- AJAX - Asynchronous JavaScript and XML

JavaScript History

- Netscape 1995 – HTML extension

- Manipulation of HTML documents

- Form validation

- Mocha > LiveScript

- = Java?

- Interpreted language

Conventions

- Use sempre <u>var</u>

- NAMES_LIKE_THIS for constant values

- Always use semicolons

- Function Declarations Within Blocks: NO!

- With() {}: NO!

- Strings: Prefer ' over "

- https://google.github.io/styleguide/javascriptguide.xml

- https://github.com/rwaldron/idiomatic.js/tree/master/translations/pt_BR

DOM

- Document Object Model

JavaScript – Dynamic HTML

- Change all the HTML elements in the page
- Change all the HTML attributes in the page
- Change all the CSS styles in the page
- Remove existing HTML elements and attributes
- Add new HTML elements and attributes
- React to all existing HTML events in the page
- Create new HTML events in the page

JS - Strings & Arrays

- Split

- Join

- Reverse

Challenge 01

Local / jsbin.com / TutorialsPoint – Coding Ground

```
function FirstFactorial(num) {

  // code goes here
  return num;
}
```

Challenge 01

```javascript
function FirstFactorial(num) {
  var result = 1;
  for (var i=1;i<=num;i++){
    result *= i;
  }
  return result;
}
console.log(FirstFactorial(4));
```

- Case 1
  - Input 4
  - Output 24
- Case 2
  - Input 10
  - Output 3628800

Challenge 02

- Reverse a string

  - function FirstReverse(str) {
    // code goes here
     return str;
    }

- Case 1

  - Input:"palmeiras"

  - Output:sariemlap

- Case 2

  - Input:"nao tem mundial"

  - Output:laidnum met oan

Challenge 02

- Reverse a string
  - function FirstReverse(str) {
    // code goes here
     return str;
    }

- Case 1
  - Input:"palmeiras"
  - Output:"sariemlap"

- Case 2
  - Input:"nao tem mundial"
  - Output:"laidnum met oan"

Challenge 03

```
function TimeConvert(num) {
    // code goes here
    return num;

}
```

- Case 1
  - Input: 129
  - Output:2:9
- Case 2
  - Input: 33
  - Output: 0:33
- parseInt(2.4)   // 2

Challenge 03

```
function TimeConvert(num) {


  // code goes here

  return parseInt(num/60).toString() + ':' + (num%60).toString();


}
```

JS Challenge 01

- https://github.com/elizarp/unaerp

- Only display the email paragraph when the checkbox is checked

  – Hiding the email fields by default

  – Adding a function toggleEmail

  – Display the email fields

  – Making the email field toggle

  – When Javascript is disabled

JS Challenge 02

```html
<fieldset>
 <legend>Billing Information</legend>
 <p>
  <label>
   Postal Address:<br>
   <input name="postaladdress" id="postaladdress"></input>
  </label>
 </p>
 <p>
  Home Address:<br>
  <label>
   <input type="checkbox" name="homepostalcheck" id="homepostalcheck">
   Same as above
  </label>
  <br>
  <input name="homeaddress" id="homeaddress"></input>
 </p>
</fieldset>
```

JS Challenge 02

- Add js_challenge02.txt
- Automatically copy the postal address to the home address field if a user checks the "Same as above" checkbox
- Disable the home address field when the checkbox is checked
- Steps
  - Add a function setHomeAddress
  - Get the Postal Address
  - Set the value for the Home Address
  - Disable the Home Address field
  - Toggle the Home Address

JS Challenge 03

- Radio Buttons

- Add js_challenge03.txt

- Steps

  - Set up your input validation

  - Find out if a radio button has been checked

  - Getting it to work properly

  - Halting progress

JS Challenge 04

- Download js_challenge04.html

- Create in-line error messages that only appear when they need to

- Steps
  - Add CSS - error messages use red text
  - Set up your checkForm() function
  - Display your error messages

JS Challenge 05

- Send code to eliezer.zarpelao@gmail.com
  - Until next class
  - Subject: "JS Challenge 05 - "+ RA
- E-mail validation
- Steps
  - Add an email field
  - Make sure that the '@' symbol is present
  - Ensure there's something before the @
  - Ensure there's a full stop (.) after the @
  - Ensure there's at least two characters after the dot
  - Advanced: doing it all with a Regular Expression (regex)

Dúvidas?