



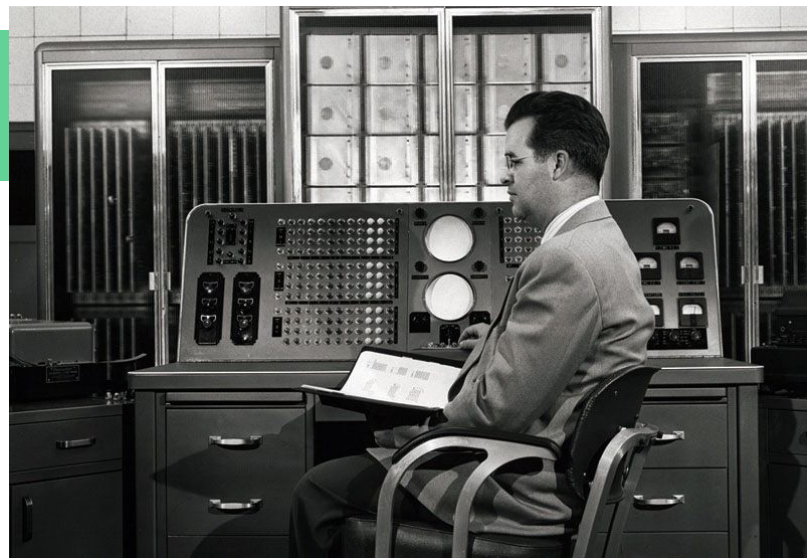
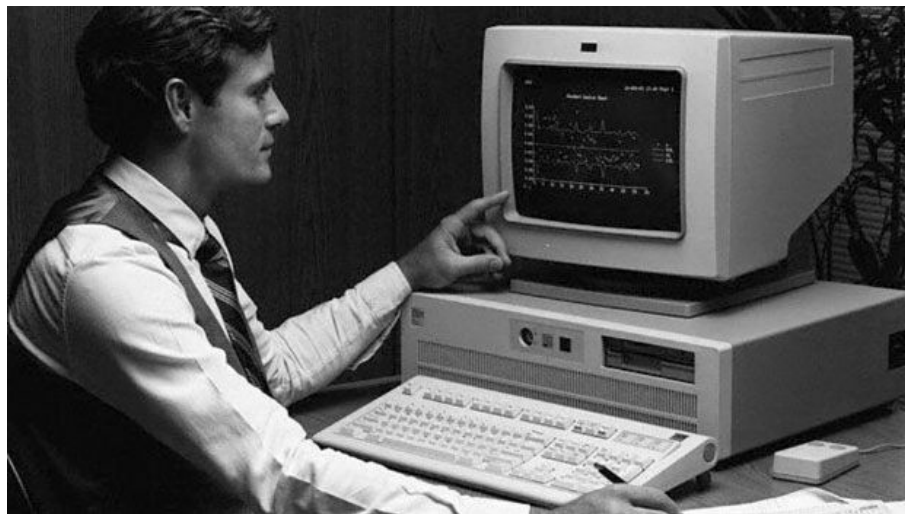
Programador Web

O que é e como funciona a WEB

Adriel Sales

Era uma vez, antes da Web...

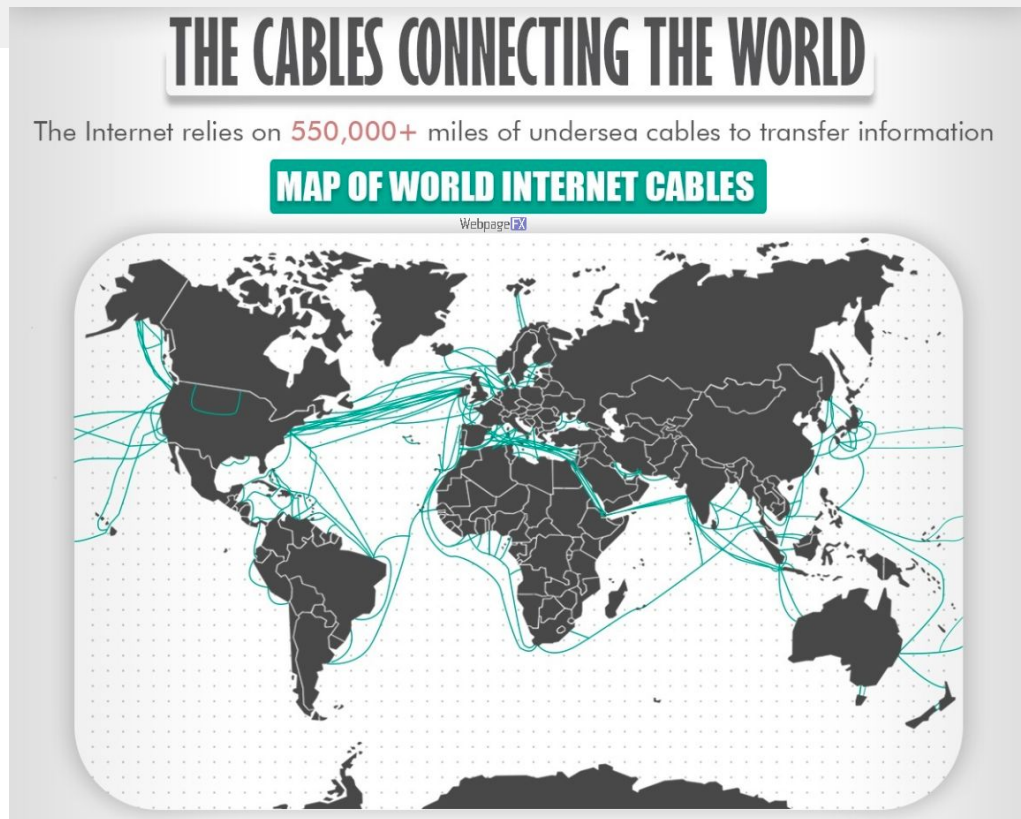
Apenas matemáticos
conseguem fazer isso funcionar



Apenas quem tem grana
compra uma máquina dessas

Internet

Meados da **década de 1960**, tem início nos Estados Unidos um projeto denominado **ARPANET** (*Advanced Research Projects Agency Network*), com o objetivo de permitir aos **fornecedores do governo** compartilhar recursos computacionais através de uma **rede experimental de computadores a longa distância**.



Pra você, o que é a Web?

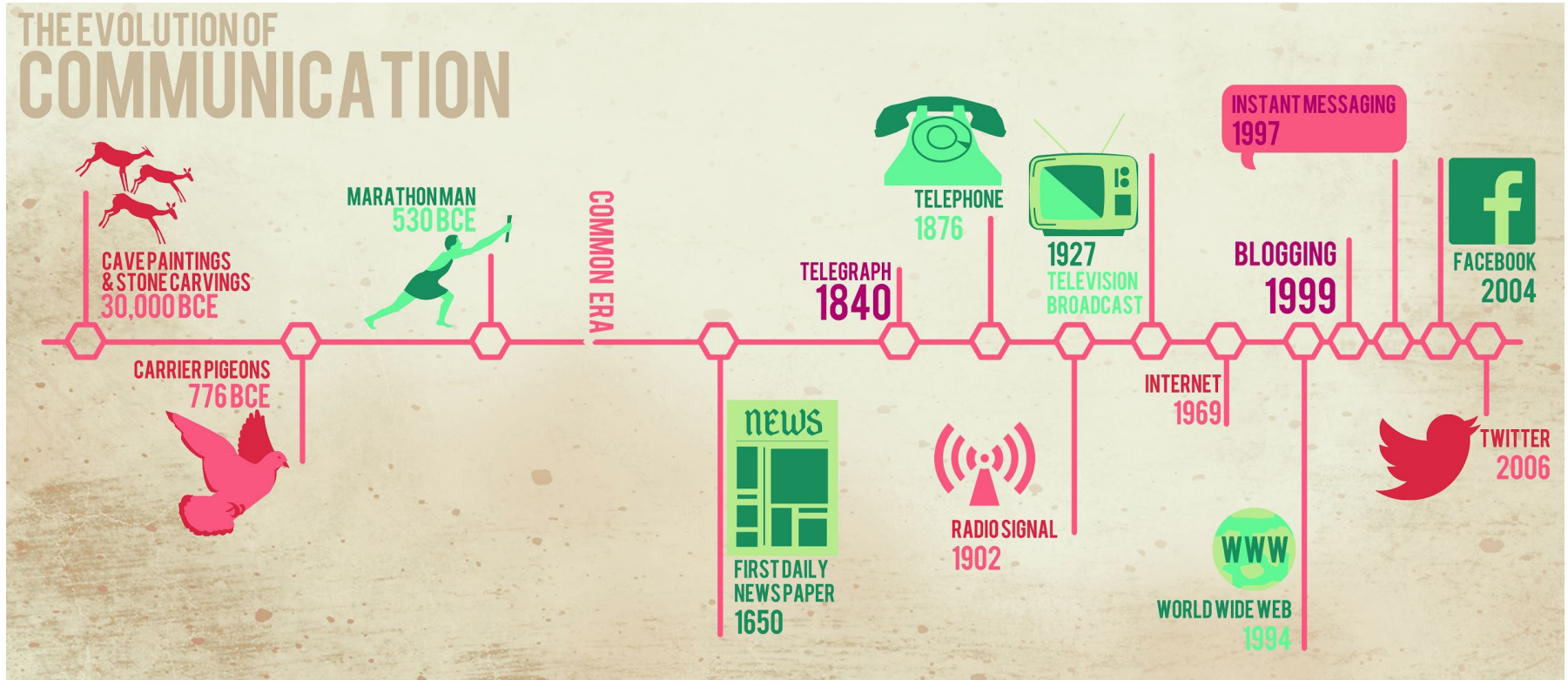
WWW - World Wide Web

(Rede de alcance mundial)



- Principal serviço da Internet, é a **parte multimídia da rede**, onde é possível ler jornais eletrônicos, fazer compras em lojas virtuais e consultar bancos de dados.
- O **padrão arquitetural** adotada pela Web é o padrão **cliente-servidor**.

A palavra chave é... **Comunicação!**

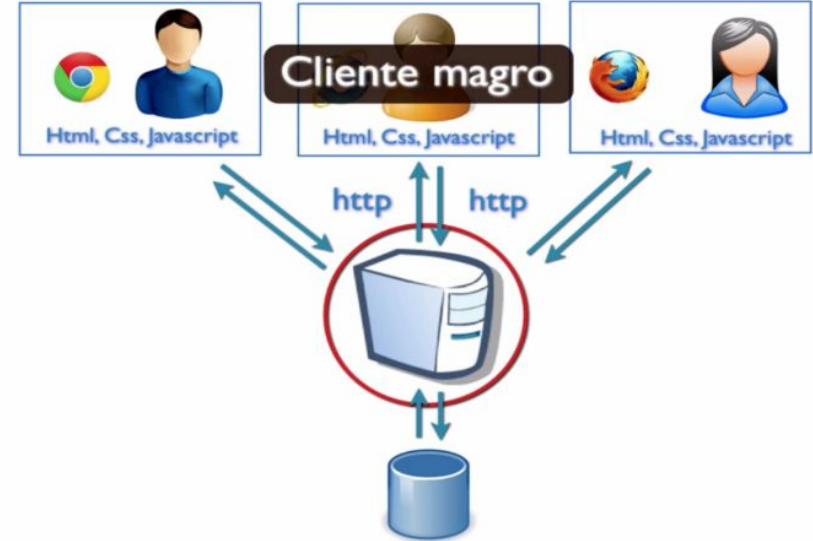


Desktop App vs Web App

Aplicação Desktop?



Aplicação na Web?

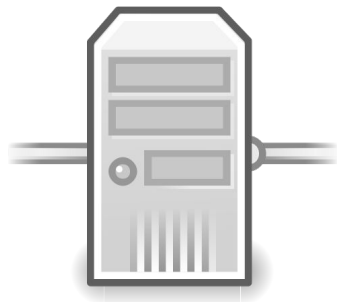




WEB – Word Wide Web

Antes da WEB

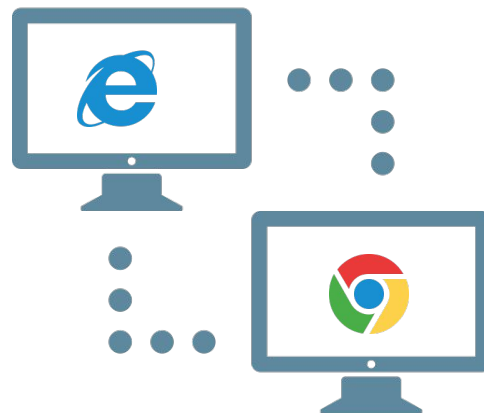
- Muitas Redes de computadores eram locais.
- Alto custo para manter estruturas de aplicações distribuídas.
- Alta complexidade.



Tim Berners-Lee

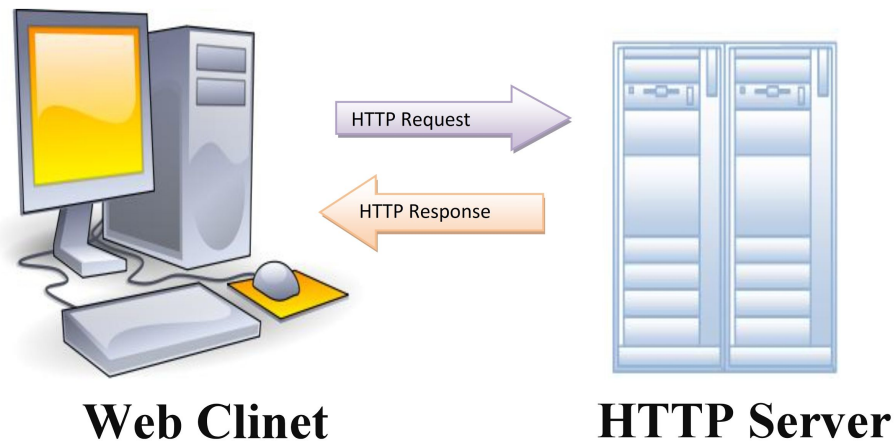
Nos anos 80/90, implementa a primeira comunicação funcional entre um cliente **HTTP** (*HyperText Transfer Protocol*) e o servidor através da **internet**.

<http://info.cern.ch/hypertext/WWW/TheProject.html>



HTTP (Hypertext Transfer Protocol)

A comunicação entre **clientes e servidores** na Web é realizada com o auxílio do **HTTP**, através de troca de mensagens, o cliente, a partir de um navegador Web, envia uma mensagem com uma requisição (**request**) **HTTP** para uma **URI** (*Uniform Resource Identifier*) específica em um servidor. Este, por sua vez, envia como retorno uma resposta (**response**) **HTTP**, em formato de texto plano.



Requisitos Básicos para uma Aplicação WEB



Navegador/Cliente

- Html
- JavaScript
- CSS
- XML
- Json
- ...

Arquitetura Cliente-Servidor

Servidor/Server

- Apache
- Linguagens de programação (java, PHP, Python, etc.)
- Bancos de Dados (Mysql, PostgreSQL, Oracle, etc.)
- ...



HTTP

Internet \neq Web

Internet



Evolução da Web

Web 1.0

É a internet como ela surgiu. Sites de conteúdo estático com pouca interatividade dos internautas e diversos diretórios de links.

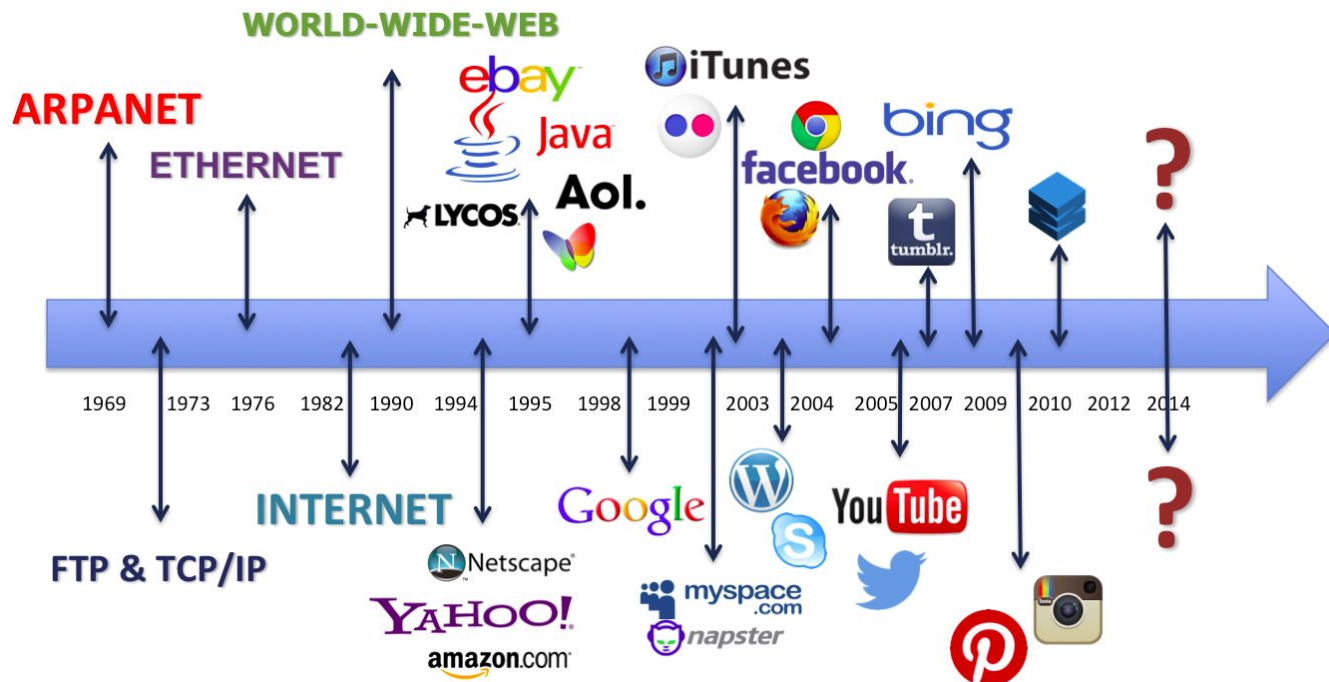
Web 2.0

Também chamada de **web participativa**, foi a revolução dos blogs e chats, das mídias sociais colaborativas, das redes sociais e do **conteúdo produzido pelos próprios internautas**.

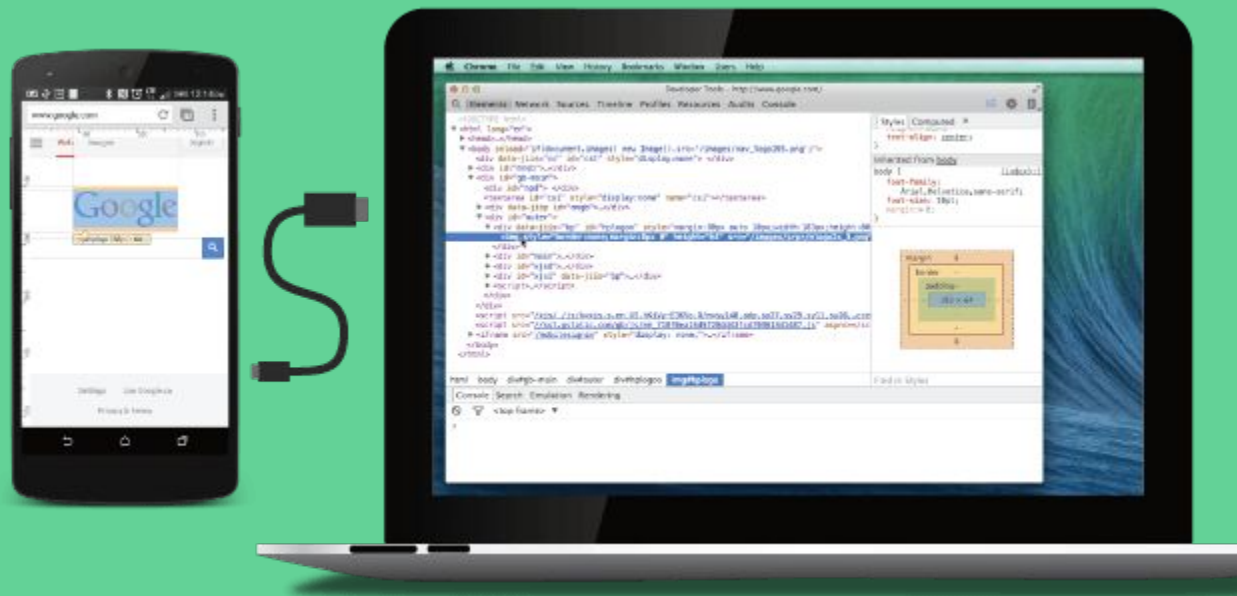
Web 3.0

É uma internet onde teremos **toda informação de forma organizada** para que não somente os **humanos** possam entender, mas principalmente as **máquinas - próxima da inteligência artificial**.

Timeline



Então, vamos começar a brincadeira?



Iniciando com o **cliente: browser (navegador)**

No final das contas, tudo acaba em HTML!

The image shows a web browser's developer tools interface. On the left, the 'Sources' panel is open, showing a file tree for 'google.github.io' with a folder 'web-starter-kit/hello-world' containing 'scripts' and 'styles' folders, and an '(index)' file. The 'main.min.js' file is selected, and a breakpoint is set on line 25. The code in the main editor is as follows:

```
18 /*
19 !function() {
20   "use strict";
21   function e() {
22     o.classList.remove("open"), c.classList.remove("open"),
23   }
24   function n() {
25     o.classList.toggle("open"), c.classList.toggle("open"),
26   }
27   var t = document.querySelector.bind(document), s = t(".navdr
28   i.addEventListener("click", e), a.addEventListener("click",
29   /...
30
```

A tooltip message is displayed over the breakpoint: "The breakpoint on line 25 will stop only if this expression is true: console.log('breakpoint hit!')". On the right, the 'Elements' panel shows the HTML structure of the page:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Loving the font changes</title>
5   </head>
6   <body>
7     <style="font-family: Arial">Big title>
8     <ol>
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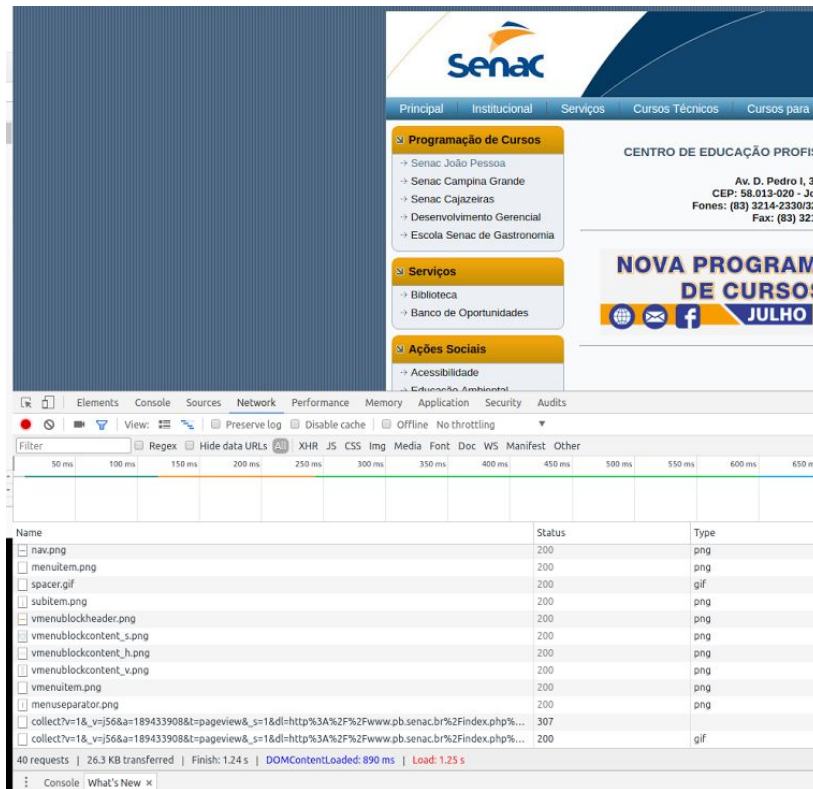
Iniciando com o **cliente: browser (navegador)**

Atalhos:

- **Shift + Ctrl + i** : developer tools
- **Shift + Ctrl + j** : javascript console
- **Ctrl + u** : source code

Extensões:

- WhatFont
- ColorPick Eyedropper
- Page Ruler



Ctrl + u

Descobrimos o que há nos bastidores de uma web page

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="pt-br" lang="pt-br" >
<head>
<meta http-equiv="X-UA-Compatible" content="IE-EmulateIE8" />
<base href="http://www.pb.senac.br/" />
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<meta name="robots" content="index, follow" />
<meta name="keywords" content="senac, cursos, paraiba" />
<meta name="description" content="SENAC - Paraíba :: Serviço Nacional de Aprendizagem Comercial - Somos a maior e melhor escola de aprendizagem para o comércio no Brasil." />
<meta name="generator" content="Joomla! 1.5 - Open Source Content Management" />
<title>Serviço Nacional de Aprendizagem Comercial</title>
<link href="/index.php?format=feed&type=rss" rel="alternate" type="application/rss+xml" title="RSS 2.0" />
<link href="/index.php?format=feed&type=atom" rel="alternate" type="application/atom+xml" title="Atom 1.0" />
<link href="/templates/senacnewtemplate3/favicon.ico" rel="shortcut icon" type="image/x-icon" />
<link rel="stylesheet" href="/media/system/css/modal.css" type="text/css" />
<link rel="stylesheet" href="/components/com_imageshow/assets/css/style.css" type="text/css" />
<script type="text/javascript" src="/media/system/js/mootools.js"></script>
<script type="text/javascript" src="/media/system/js/caption.js"></script>
<script type="text/javascript" src="/media/system/js/modal.js"></script>
<script type="text/javascript" src="/components/com_imageshow/assets/js/svfoject.js"></script>
<script type="text/javascript" src="/components/com_imageshow/assets/js/isn_is_extutils.js"></script>
<script type="text/javascript" src="/components/com_imageshow/assets/js/isn_is_imageshow.js"></script>
<script type="text/javascript">
window.addEvent('domready', function() {
    SqueezeBox.initialize({});

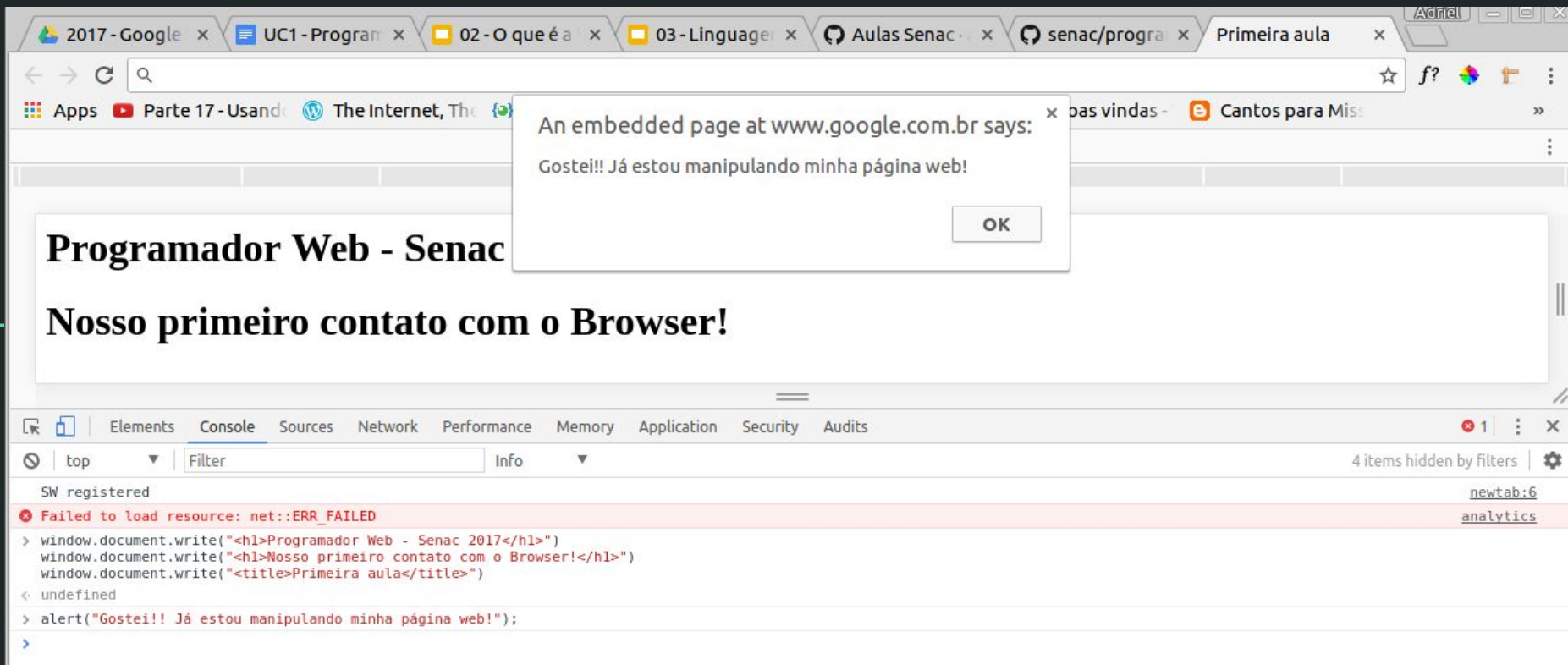
    $$('a.modal').each(function(el) {
        el.addEvent('click', function(e) {
            new Event(e).stop();
            SqueezeBox.fromElement(el);
        });
    });
});

window.addEvent('domready', function(){
    JSNISImageShow.alternativeContent();
});
</script>

<link rel="stylesheet" href="/templates/system/css/system.css" type="text/css" />
<link rel="stylesheet" href="/templates/system/css/general.css" type="text/css" />
<link rel="stylesheet" type="text/css" href="/templates/senacnewtemplate3/css/template.css" media="screen" />
<!--[if IE 6]><link rel="stylesheet" href="/templates/senacnewtemplate3/css/template.ie6.css" type="text/css" media="screen" /><![endif]-->
<!--[if IE 7]><link rel="stylesheet" href="/templates/senacnewtemplate3/css/template.ie7.css" type="text/css" media="screen" /><![endif]-->
<script type="text/javascript">if (undefined != typeof jQuery) document._artxjQueryBackup = jQuery;</script>
<script type="text/javascript" src="/templates/senacnewtemplate3/jquery.js"></script>
<script type="text/javascript">jQuery.noConflict();</script>
<script type="text/javascript" src="/templates/senacnewtemplate3/script.js"></script>
<script type="text/javascript">if (document._artxjQueryBackup) jQuery = document._artxjQueryBackup;</script>
<script>
(function(i,s,o,g,r,a,m){(i['GoogleAnalyticsObject']=r);i[r]=i[r]||function(){
    (i[r].q=i[r].q||[]).push(arguments)};i[r].l=1*new Date();a=s.createElement(o),
    m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','//www.google-analytics.com/analytics.js','ga');

ga('create', 'UA-56209594-1', 'auto');
ga('send', 'pageview');
</script>
</head>
<body class="joomla15">
<div id="art-main">
```

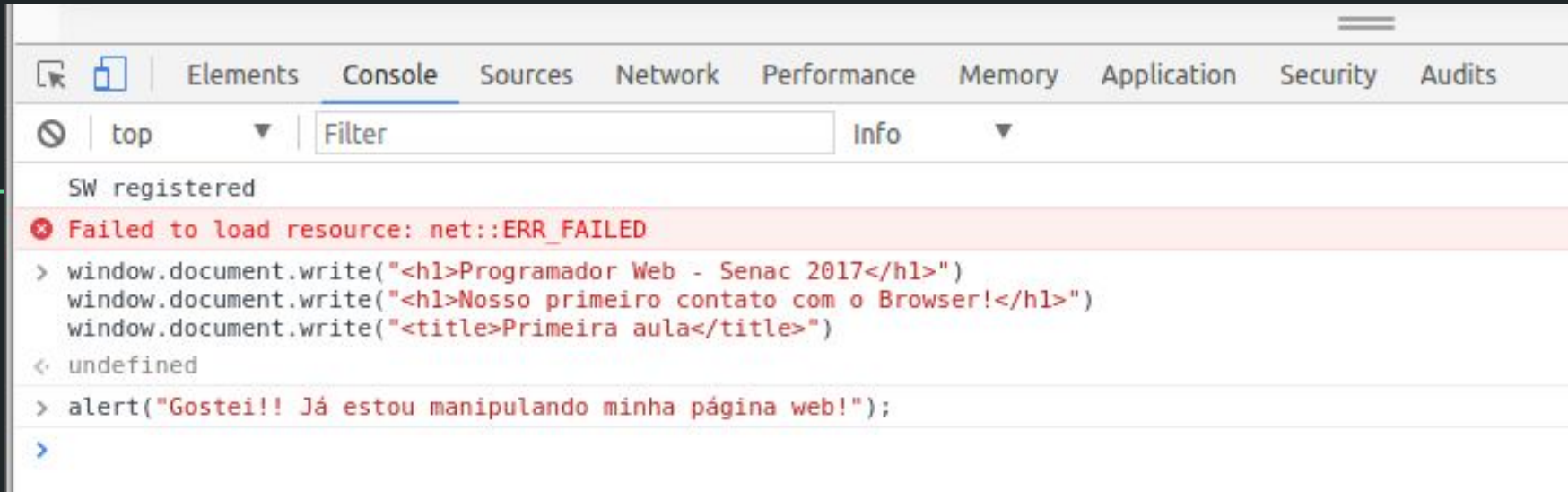
Shift + Ctrl + j



Recursos do toolbar



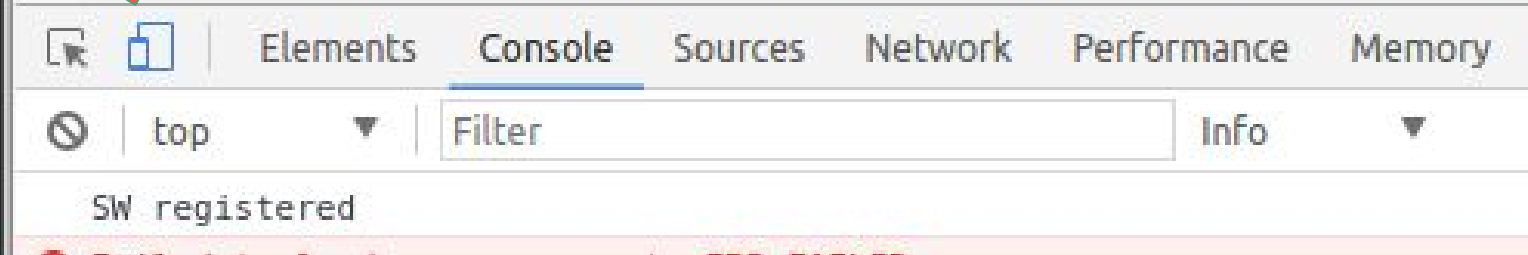
Um pouco de JS



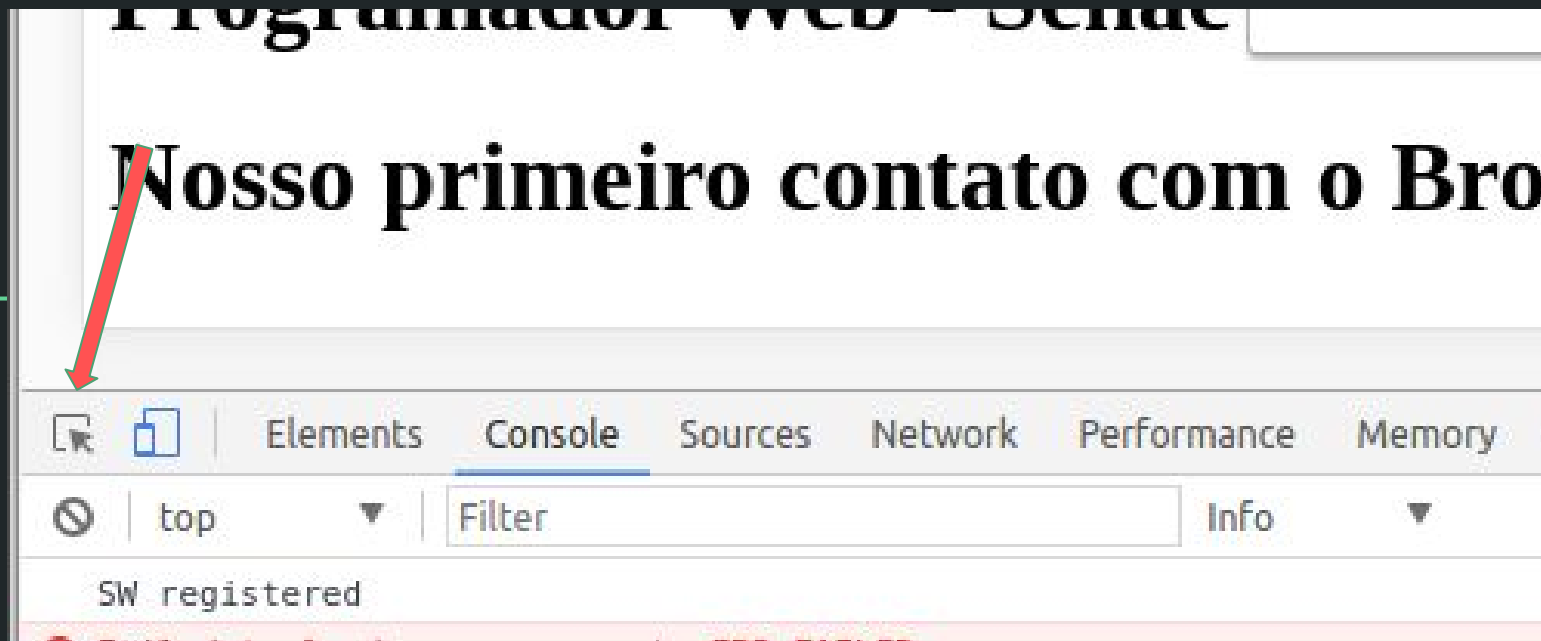
Device toolbar

Programador Web - Senac

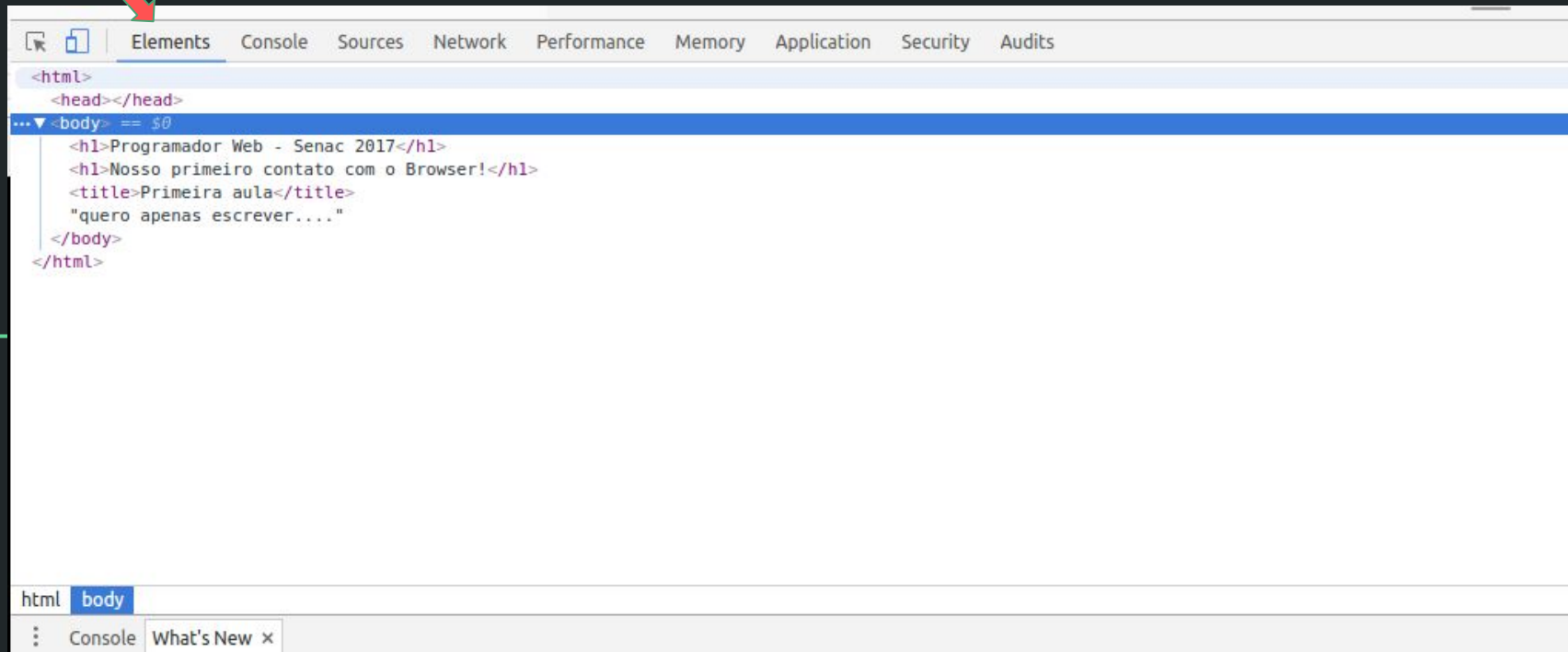
Nosso primeiro contato com o Bro



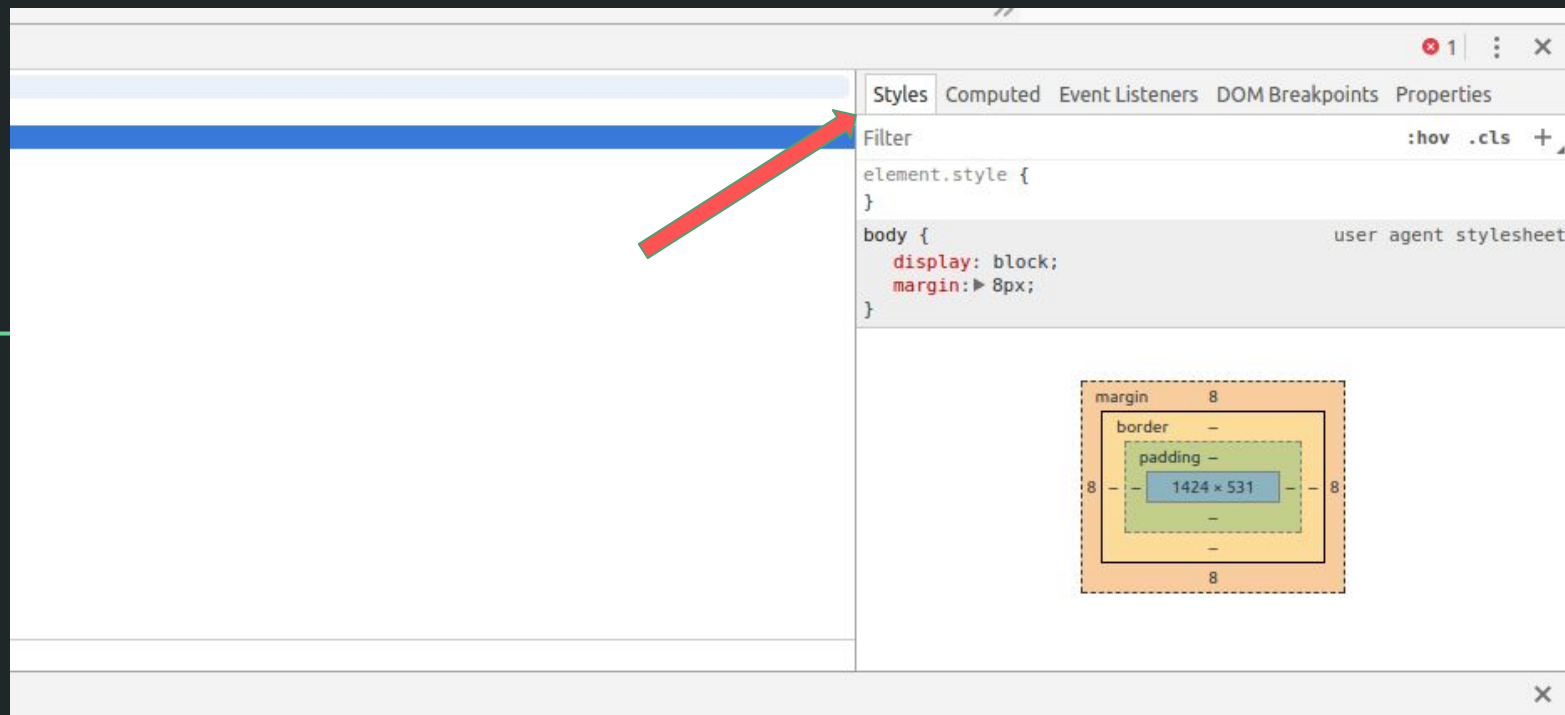
Inspect element



HTML elements



CSS styles



Prontos para começar?

Apontamentos da Aula: <https://github.com/adrielsales/senac/wiki/Aulas-Senac>

