Debug

Agenda

- Chrome Devtools
  - Open the devtools
  - Important panels
- Debug principles
  - Validate all properties
  - Isolate the problem
    - Delete elements one by one
    - Delete redundant CSS
- Edit CSS
  - Change style properties
  - Add new style properties
- Debug Ex
  - Start from scratch

Chrome Devtools

Open the devtools

* **Keyboard shortcut**
  -  : Ctrl+Shift+I, F12
  -  : Command+Option+I

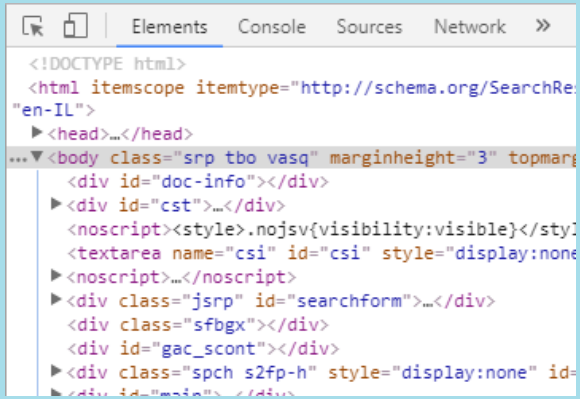
* Open the **Chrome menu** at the top-right of your browser window, then select **Tools** > **Developer Tools**.

* Right-click on any page element and select **Inspect Element**.

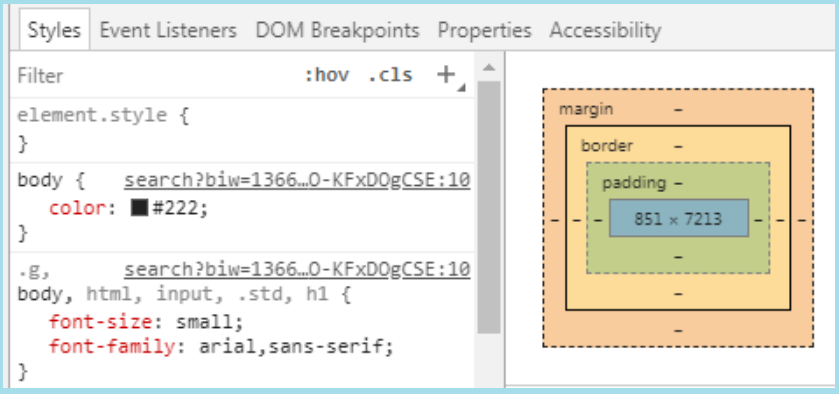
Chrome Devtools Features

Your Best Friend!

Elements Panel



Styles Panel



Validate all the CSS Values

We want to be sure that our properties are what we think they are.

When ever we inspect an element with the devtools we want to first validate the values of the properties.

What to verify:

1. The class appears in the styles panel
2. The element got the attribute it was suppose to (no overrides).

Debugging principles

1. Isolate the problem

* **This is the most important rule.**
  Our code contains hundreds of lines, some times millions
  If we were to look at each line it would take ages.
  We need to know **where things got wrong**.

* Specifically we will try to find the element that caused the problem, and then the **minimal group of elements that can reproduce the problem**.

* There are several techniques to achieve it.

Isolating the Problem

Method 1: Delete elements one by one

- First we open the chrome devtools in the Elements panel.
- We start deleting elements from the document and check if the problem still exists.
  If suddenly the problem disappear we can use undo (ctrl+z).
- Result: we have narrowed down the suspicious elements and simplified the problem.
- **Good practice** : copy the minimalized code to a playground file.

Isolating the Problem

Method 2

Delete Redundant CSS

Edit CSS

With the devtools we can modify our CSS live.

We can change CSS values and see how it affects the web page.

How is it working?

1. Just click inside the style panel, on the property you want to edit.
2. We can even add new style properties.

3. Find the bug

Isolating the Problem

Method 2:

Reproduce the problem on JS fiddle.

Ex

This is the site we want to build:

Look how cool

My Bookmarks

Acro Yoga Blues Dancing Live Concerts

Hobby Links

Blues Dancing Live Concerts

Lists practice

First List

- chocolate
- milk
- sugar

Second List

1. chocolate
2. milk
3. sugar

Second List

- chocolate
- milk
- sugar

Ex

But something went wrong

Let's Find the bug!

Look how cool

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Hobby Links

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Lists practice

First List
- chocolate
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1. chocolate
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Second List

chocolate

milk

sugar

Debug technique

Start From Scratch

Sometimes the problem is right in front of us, but we just can't see it. That is why we do it all over (like restart).

So If we have a problem with the img tag,

We can just delete it and write it from scratch.

Try it!

Cheat Sheet

- **Open chrome devtools**
  - Win: Ctrl+Shift+I, F12
  - Mac: Command+Option+I
  - **Inspect Element** Right-click on any page element and select Inspect Element.

- **Debug principles**
  - Validate all properties
  - Isolate the problem
    - Delete elements one by one
    - Delete redundant CSS

- **Edit CSS**
  - Change style properties
  - Add new style properties

- **Start from scratch methodology**