BIG DIVE

DATA SCIENCE & ANALYTICS

HTML, CSS & JS Essentials

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Organized by

top ix torino piemonte internet exchange

Designed for

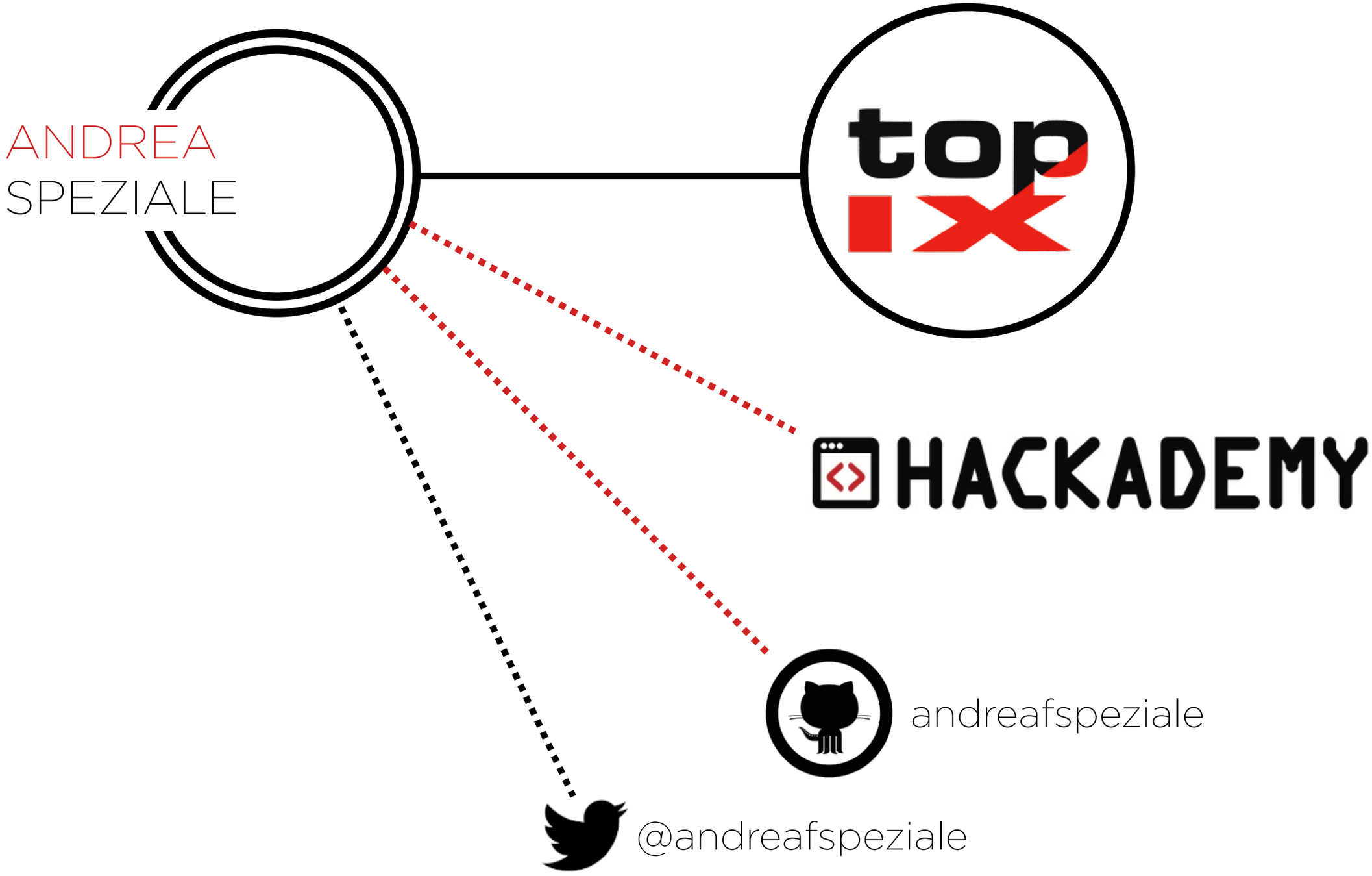
INTESA SANPAOLO

In collaboration with

aizoon technology consulting

ISI Foundation

TODO


ANDREA
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HTML + CSS + JAVASCRIPT

= 99% of front-end development

CODING
&
DEBUGGING?

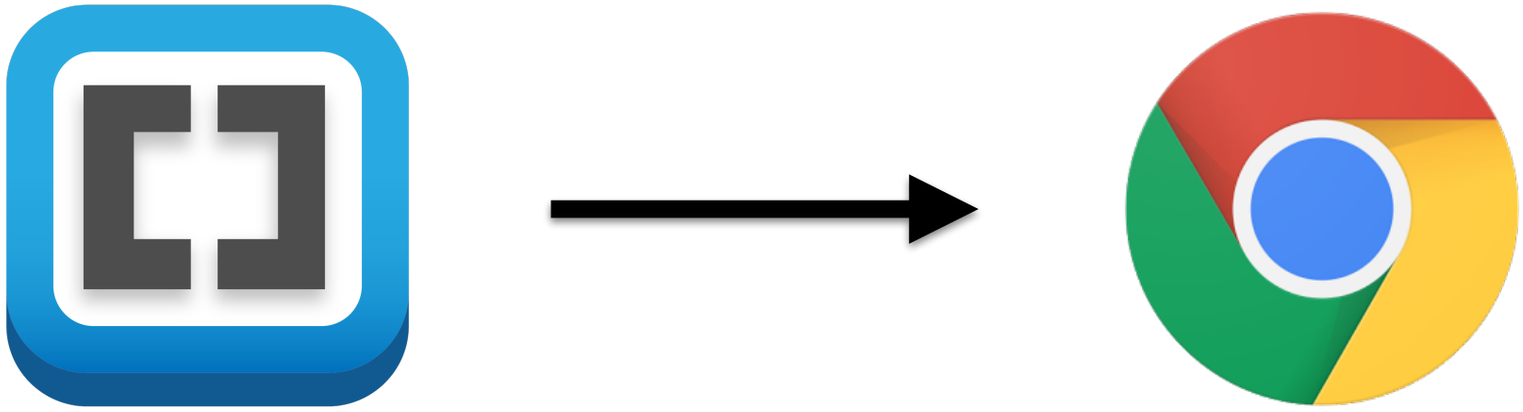
a special text editor called IDE &

your BROWSER using the integrated DEVELOPER TOOLS!

HyperText Markup Language
(or just HTML)

<!—HTML document comment—>

```
<!doctype html>
<!—HTML document declaration—>
<html lang=“en”>
    <!—HTML starting point—>
    <head>
    <!—reserved space for description tags and
    css declaration
    —>
    </head>
    <body>
    <!—reserved space for the page content—>
    </body>
</html>
```



/ Open **Brackets,** **create a new file, call it index.html and save it into your workspace**

/ Inside the **index.html** **write the base HTML structure**

/ From the brackets **file panel activate the Live Preview**

/ Lets inspect closely our page content **using the GOOGLE CHROME DEVELOPER TOOL**

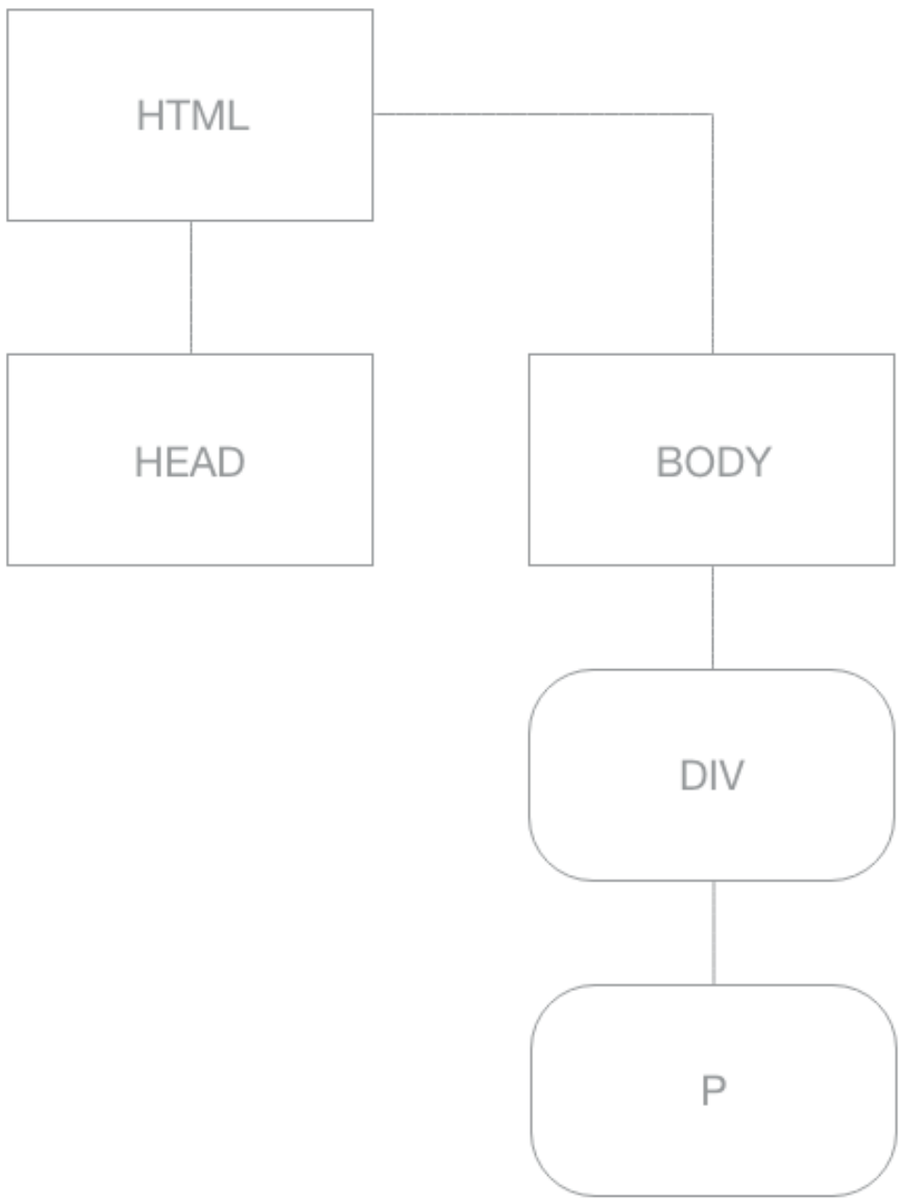
/ Now somewhere in the page on the **browser right click** → **ELEMENT INSPECTION**

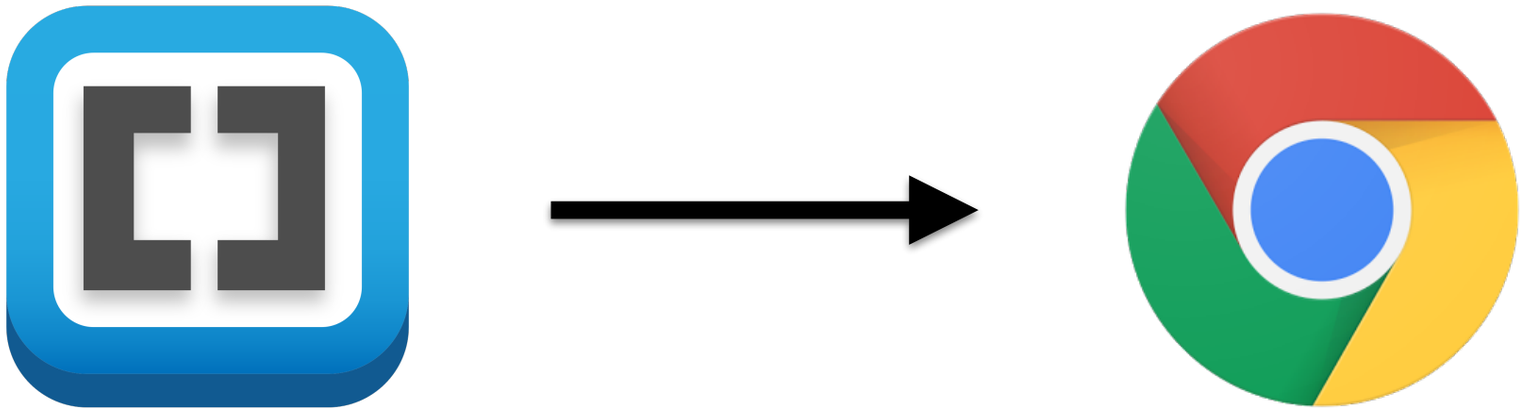
```
<body>
    <!—reserved space for our page content—>
    <div>
    <!—div tag used for markup grouping—>
        <p>
        <!—p o paragraph tag usually takes in a
        sentence—>
```

BIG DIVE LESSON

```
        </p>
    </div>
</body>
```

DOM





/ Write inside the **body** of **index.html** a **div.** Inside the div write a **p**

/ Write inside the **p** a sentence like
eg. “BIG DIVE LESSON”

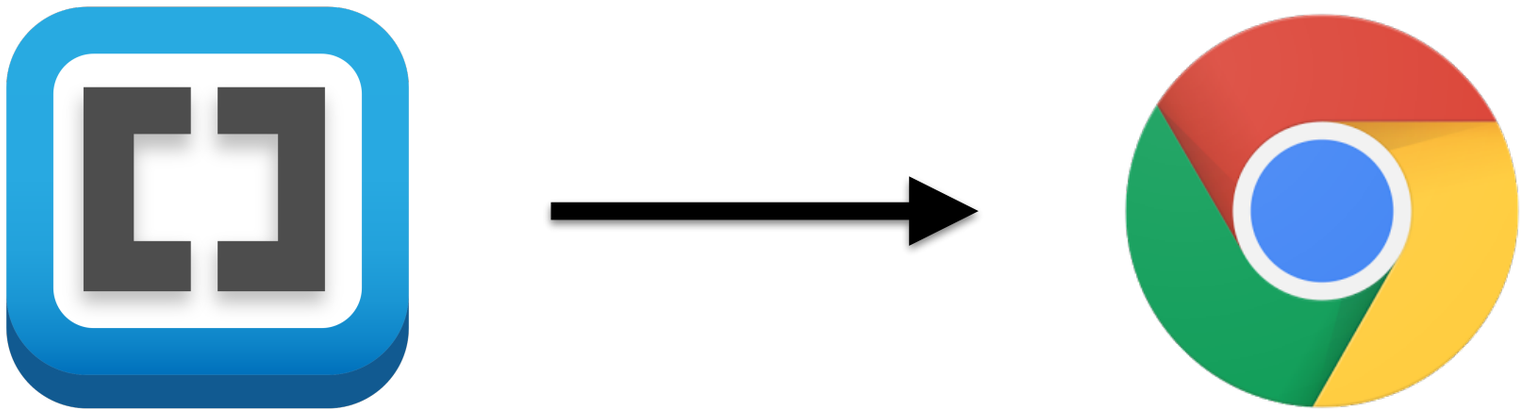
/ Eventually reload the browser **and inspect the elements**

Cascading Style Sheets
(or just CSS)

```
<!doctype html>
<html lang="en">
    <head>
    <!—style here as raw rules or linked files—>
    </head>
    <body>
        <div <!— or style here as raw rules—> >
            <p <!—or style here as raw rules—> >
                BIG DIVE LESSON
            </p>
        </div>
    </body>
</html>
```

```
<head>
    <style>
        body {
            background-color: powderblue;
        }
        <!— css selector (element, class...) —>
        p {
            <!— css property : css attribute —>
            color: red;
        }
    </style>
</head>
```

For **DOM** elements selection we can use
element selectors, **classes** **and** **ids**

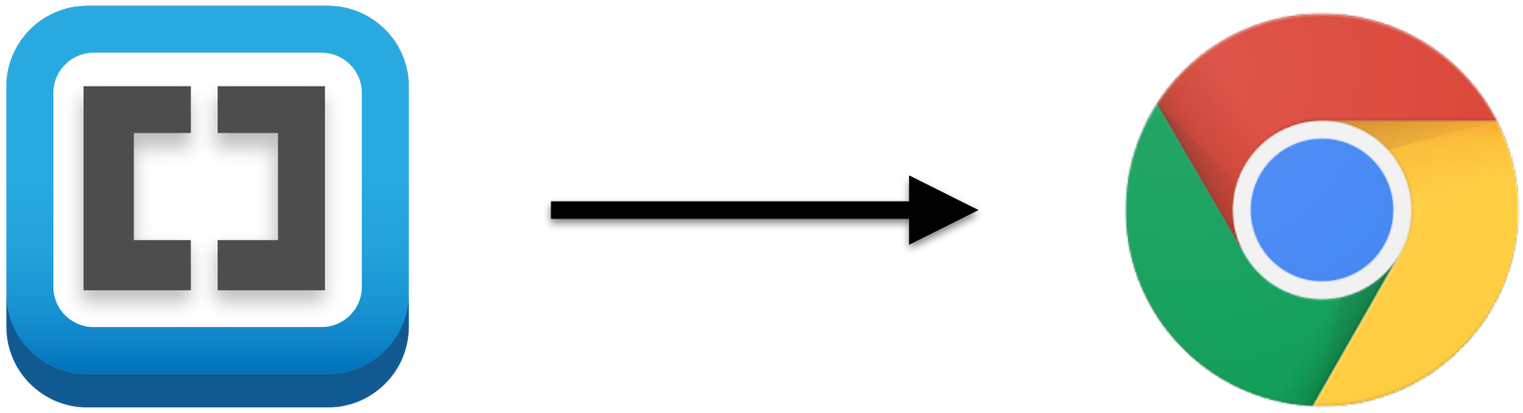


/ Like the previous sample
using element selectors give to the div inside the
index.html header a
background-color : powderblue rule

/ Like the previous sample
using element selectors give to the p inside the
index.html header a **color : red** rule

```
<head>
    <style>
        body {
            background-color: powderblue;
        }
        p {
            color: red;
        }
        .p-with-class { color: green }
        #p-with-id { color: violet }
    </style>
</head>
```

For **DOM** elements selection we can use
element selectors, **classes** **and** **ids**



/ Like the previous sample
using class selectors give to the p inside the
index.html header a
color : green rule

/ Like the previous sample
using id selectors give to the p inside the
index.html header a **color : violet** rule

```
...
    <div>
        <p id="p-with-id" class="p-with-class">
        BIG DIVE LESSON
        </p>
    </div>
</body>
```

ID Selectors win **over** **CLASS Selectors** that win over **ELEMENT Selectors**

ID Selectors VS **ID Selectors** ?

or

CLASS Selectors VS **CLASS Selectors** ?

IDs should be UNIQUE

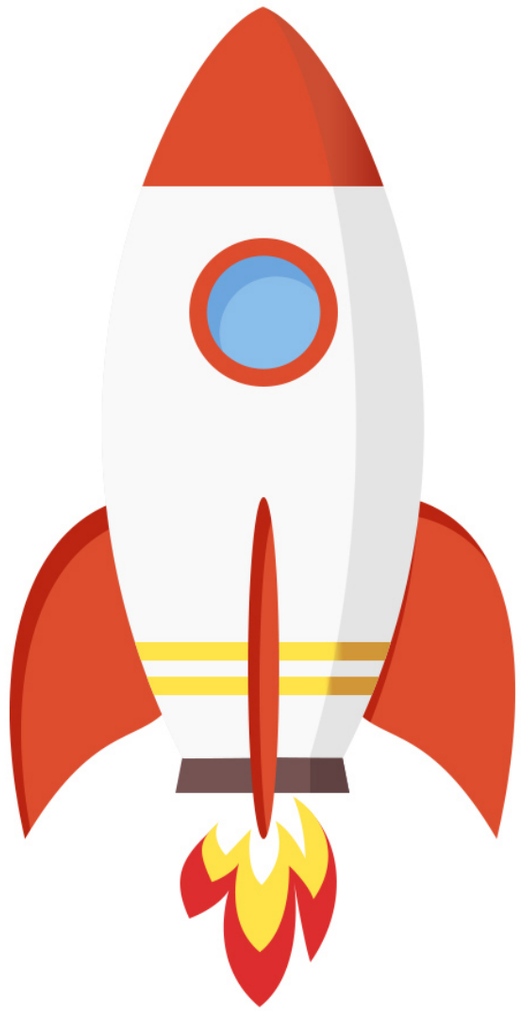
or

CLASS Selectors win on **CLASS Selectors depending on the WRITING ORDER**

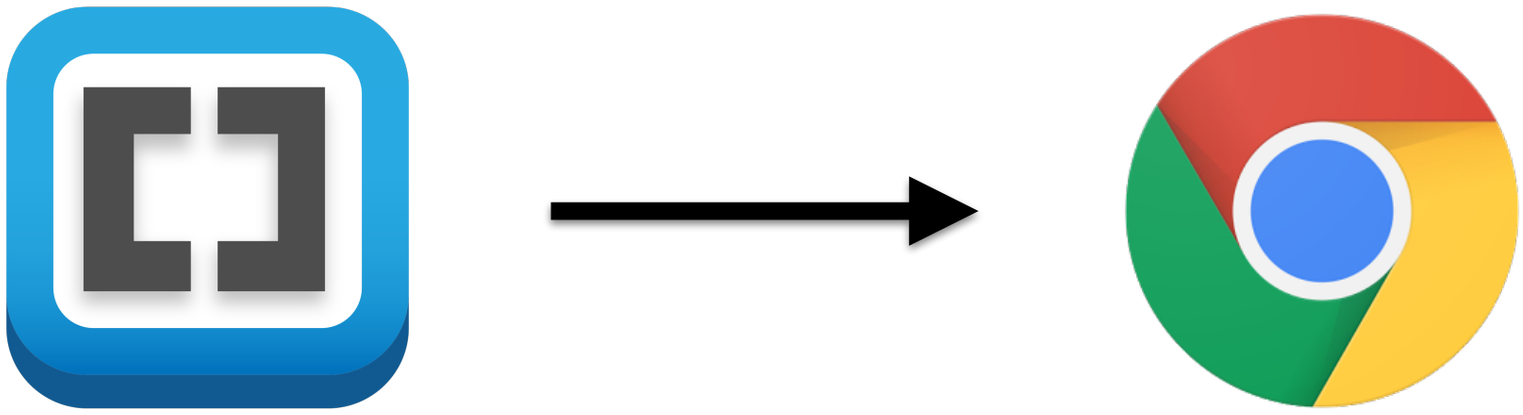
and what about JAVASCRIPT?

```
// JS line comment
/*JS block comment*/
```

JAVASCRIPT
makes your front-end FLY



```
...
    <div>
        <p id="p-with-id" class="p-with-class">
        BIG DIVE LESSON
        </p>
    </div>
    <!—typically scripts are placed here—>
    <script>
        // command for printing sentence
        // or vars in the browser console
        console.log("My first script ever");
    </script>
</body>
```



/ Write inside the **body** of **index.html** a **script** that prints some sentence

/ Eventually reload the browser, **inspect the elements and move to the console tab of the BROWSER DEVELOPER TOOL**

With **JAVASCRIPT** we can even select **DOM** elements

eg. byID

document.getElementById("p-with-id")

```
<script>
    console.log(“My first script ever”);
    console.log(
        document.getElementById(“p-with-id”));
</script>
```

The **DEVELOPER TOOL CONSOLE**
will print you out the
DOM element taken by its
ID ATTRIBUTE

** **
**BIGDIVE LESSON **

With **JAVASCRIPT** we can even execute some **LOGIC** defining **VARIABLES** and **OPERATIONS**

```
<script>
    console.log(“My first script ever”);
    console.log(
        document.getElementById(“p-with-id”));
    var x = 5;
    var y = 5;
    var area = 5*5;
    console.log(“The area is: ” + area);
</script>
```

The **DEVELOPER TOOL CONSOLE**
will print you out the
OPERATION we wrote

...

The area is: 25

With **JAVASCRIPT** we can even execute some **LOGIC** firing **FUNCTIONS**

```
<script>
    ...
    // function declaration
    function calcArea(param1, param2) {
        return param1*param2;
    }
    // function usage
    console.log("The area calculated using a
      func is: " + calcArea(x, y))
</script>
```

The **DEVELOPER TOOL CONSOLE**
will print you out the
OPERATION fired from the
FUNCTION

...

The area is: 25
The area calculated using a func is: 25

With **JAVASCRIPT** we can also **TRIGGER SOME EVENTS** and **RUN SOME LOGIC**

```
<div>
      <p .... onclick="printMessage()">
      BIG DIVE LESSON
      </p>
</div>
<script>
      ...
          function printMessage() {
             console.log("In the clicked DIV there
             is: " + document.getElementById(
             "p-with-id").innerHTML);}
   </script>
</body>
```

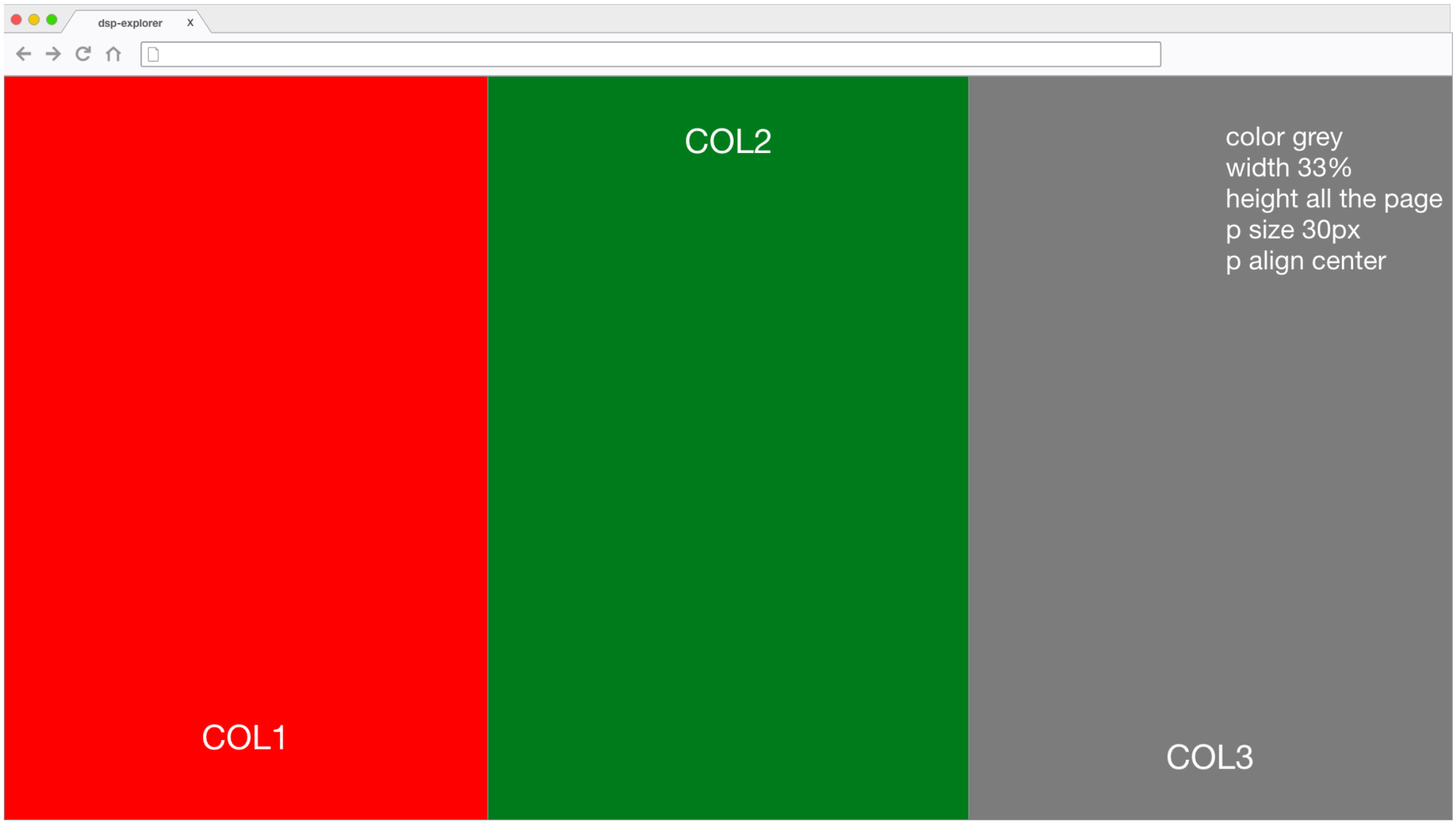
Now **CLICK ON THE <P>**
and the CONSOLE
will print you out the
CONTENT OF THE <P>

...

”In the clicked DIV there is: “
BIG DIVE LESSON

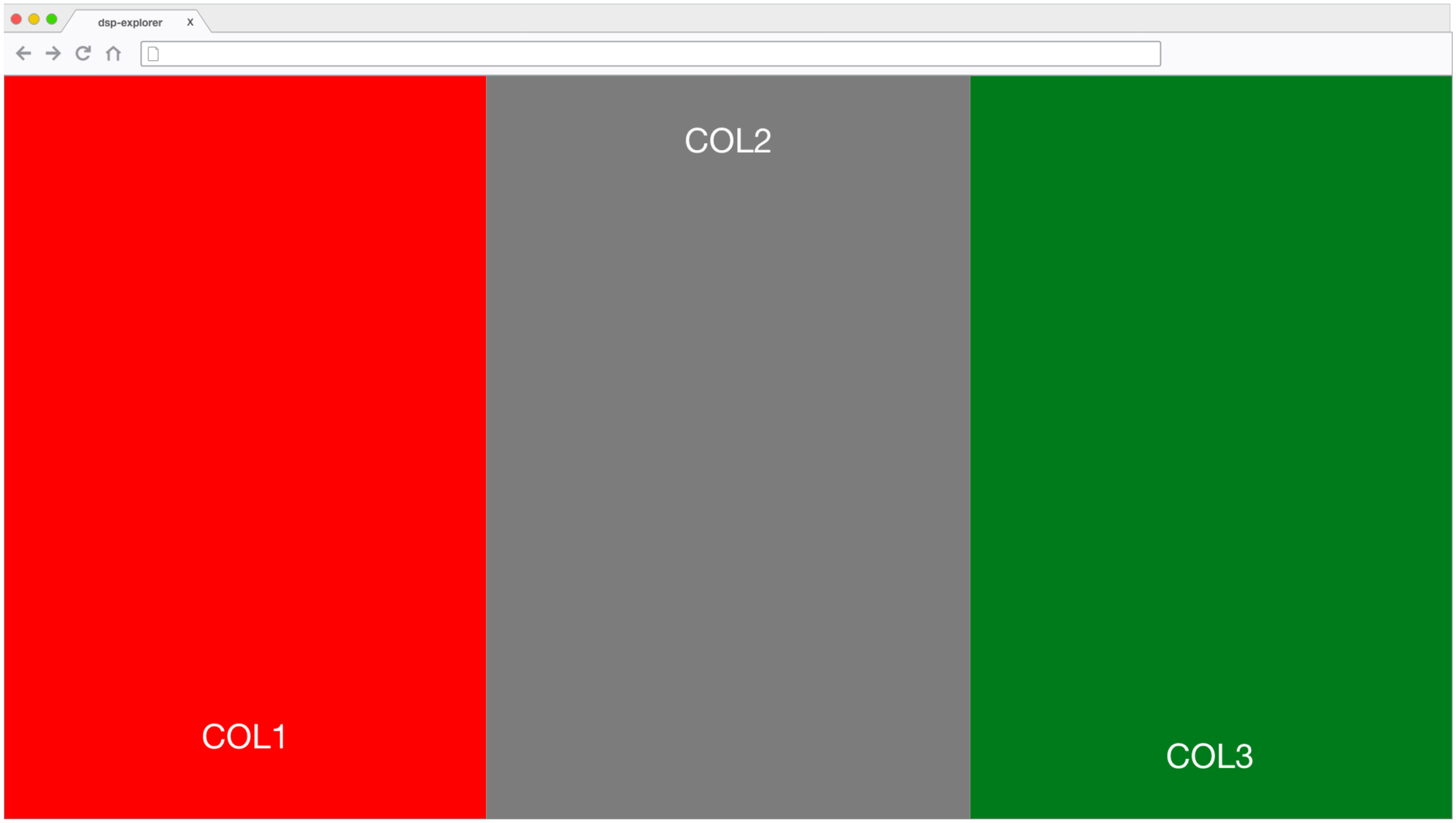
PRACTICE IS THE WAY

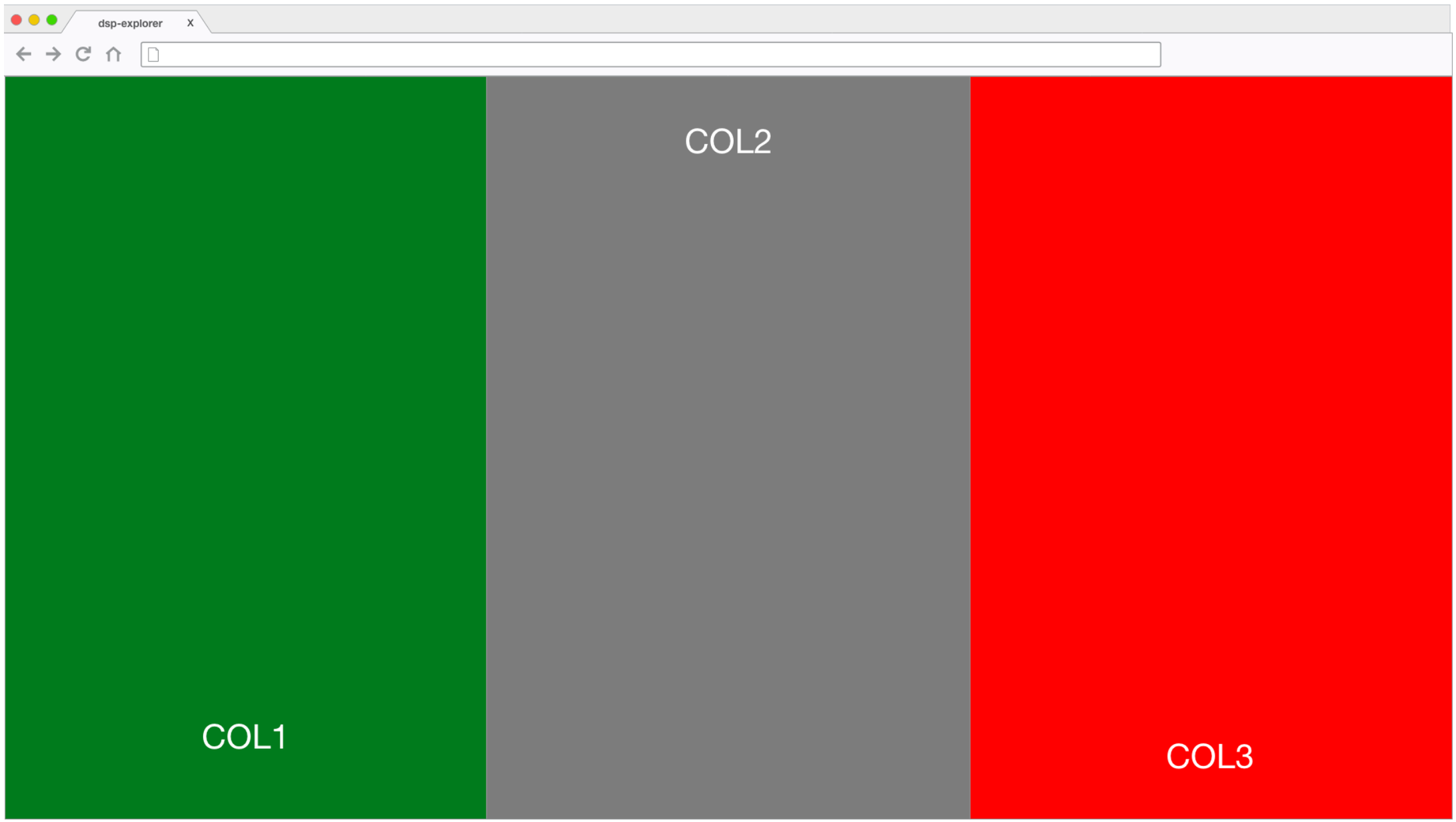
Create this simple design using some **HTML** and **CSS**



On **DIV HOVER**

use javascript to change columns colors between them



On **DIV HOVER**

use javascript to change columns colors between them