

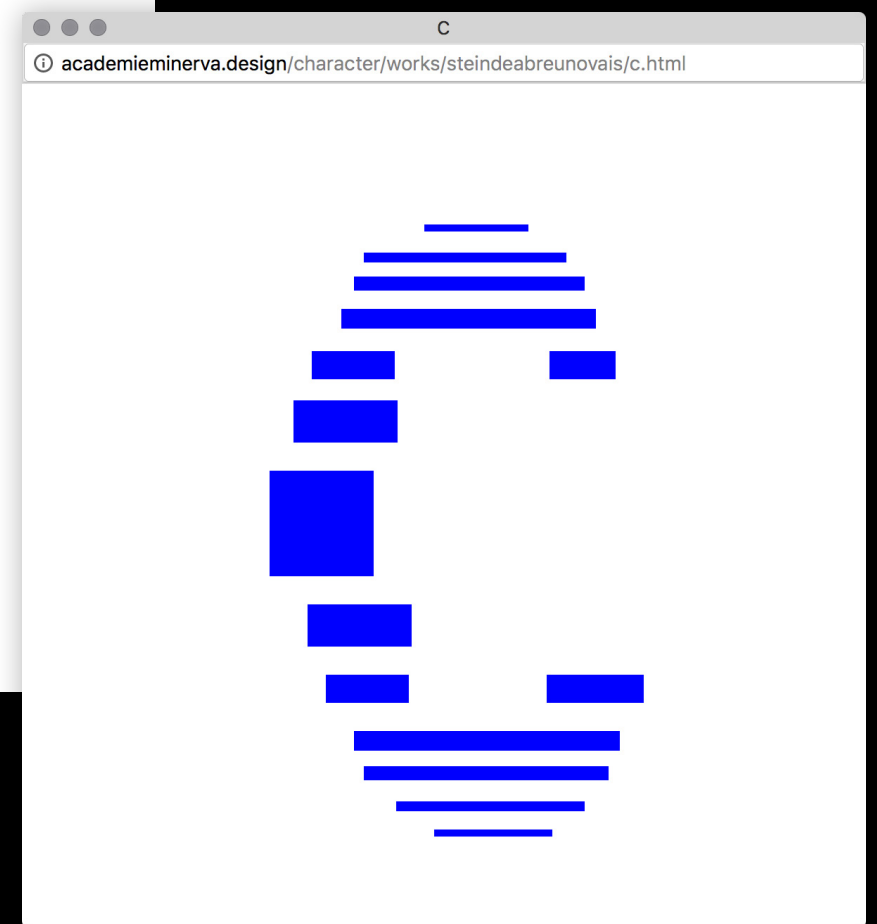
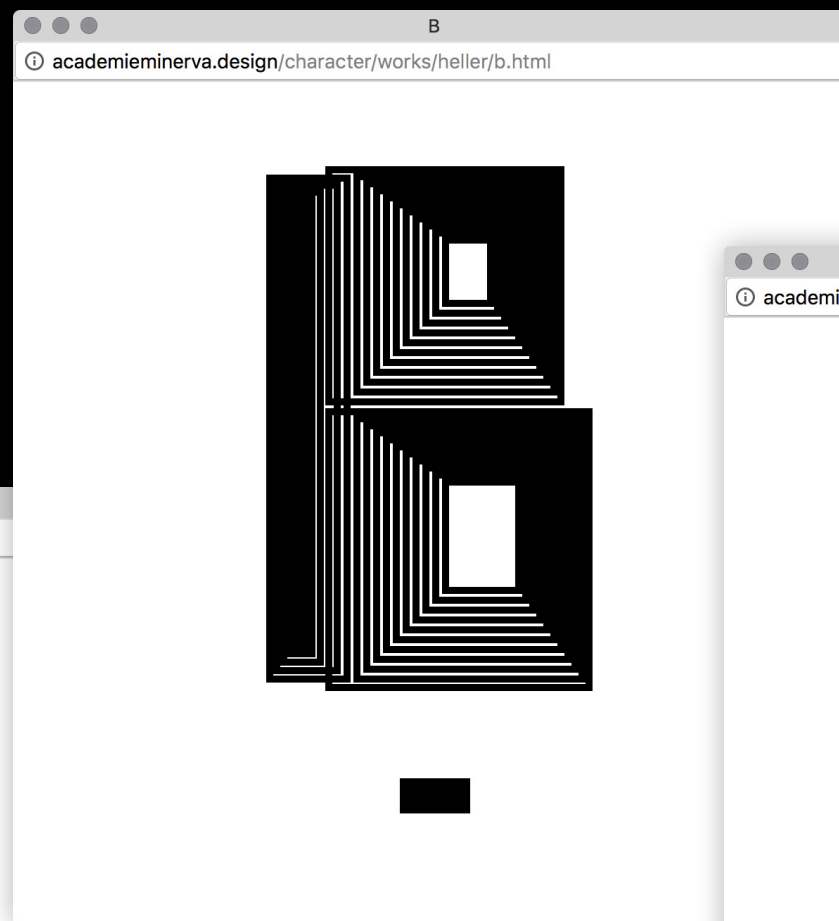
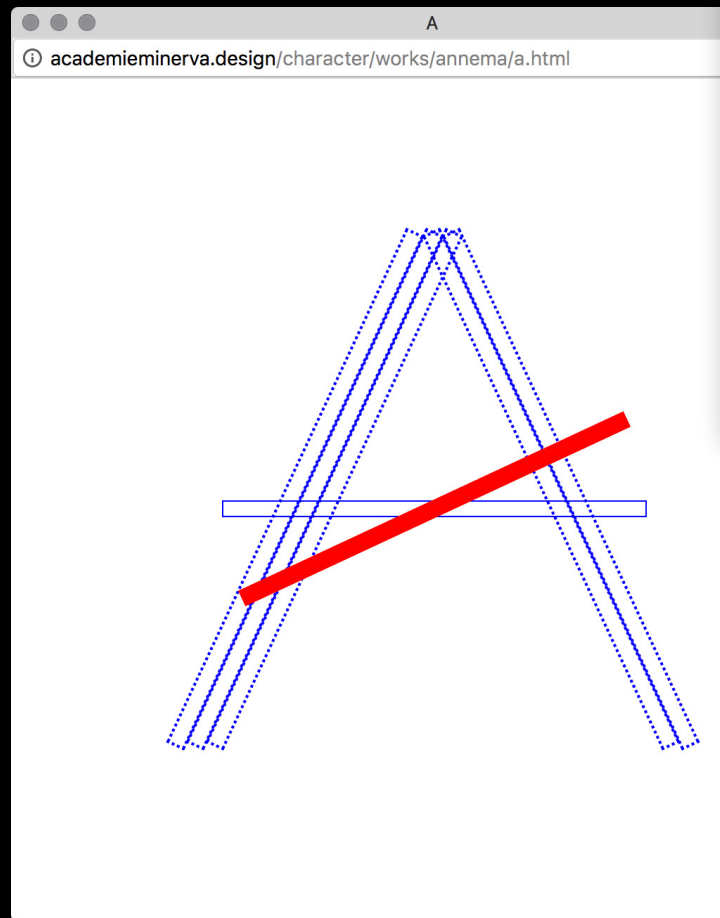
Coding

What we need today.

Download &
install Brackets
<http://brackets.io/>

Coding

We are going to
learn some basics
in HTML, CSS and
JavaScript.



ARTEZ

Construct 5 characters
with only HTML
elements and style
them with CSS.

ARTEZ

The goal here is to playfully introduce you to HTML and CSS on the web. You can make it as easy and complex as you want.

ARTEZ

HTML & CSS

ARTEZ

The two
most
important
parts of
building
a simple
website.

1.

`<html>`

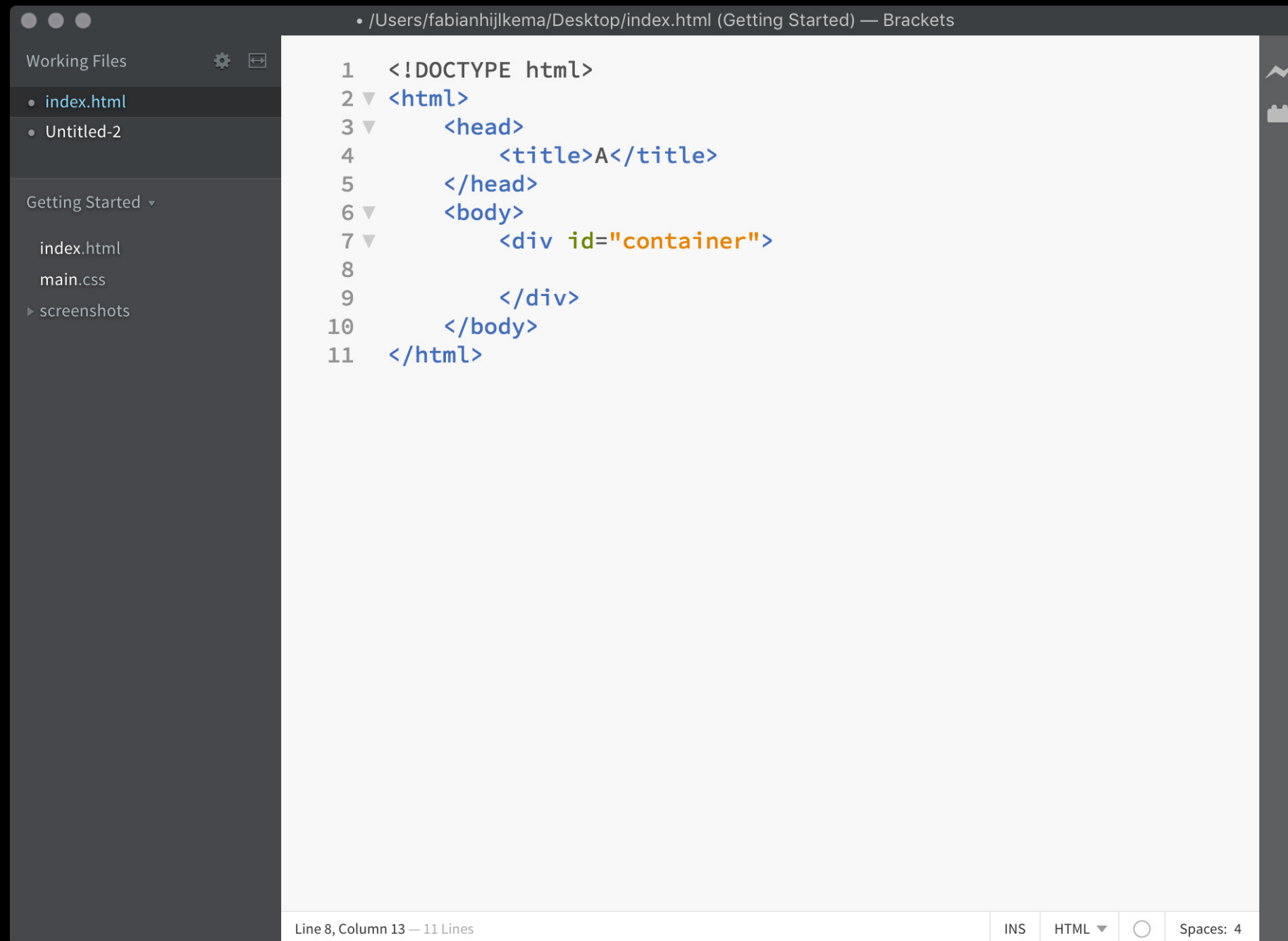
The frame,
structure &
hierarchy
of a
website.

2.

`css{ }`

The design
(color,
font, sizes
etc.) of a
website.

What HTML looks like

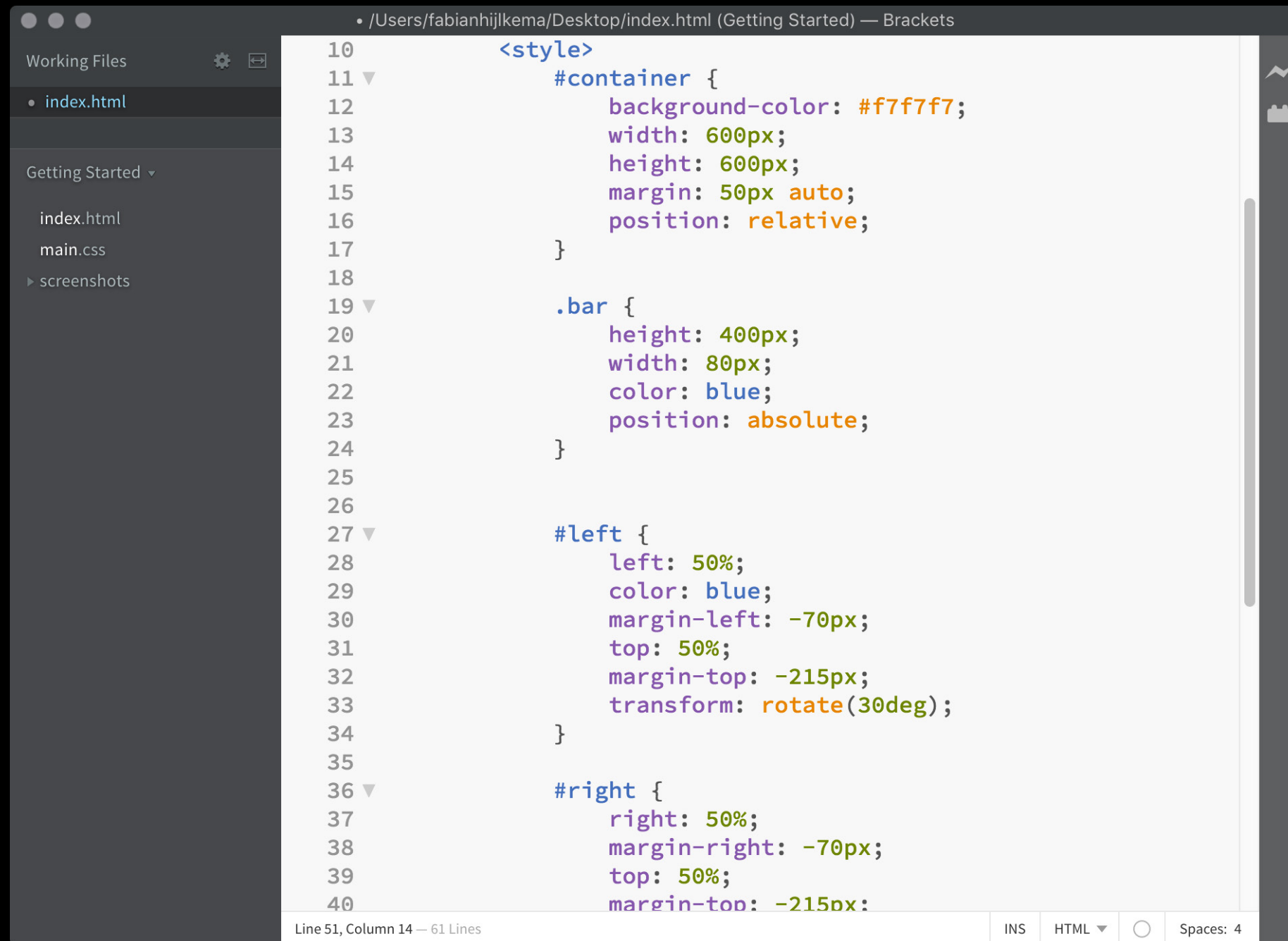


The image shows a screenshot of the Brackets code editor interface. The title bar at the top indicates the file path: `/Users/fabianhijkema/Desktop/index.html (Getting Started) — Brackets`. On the left, the 'Working Files' sidebar lists `index.html` and `Untitled-2`. Below that, the 'Getting Started' section lists `index.html`, `main.css`, and a 'screenshots' folder. The main editor area displays the following HTML code:

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5    </head>
6    <body>
7      <div id="container">
8
9      </div>
10   </body>
11 </html>
```

The status bar at the bottom shows 'Line 8, Column 13 — 11 Lines'. On the right side of the status bar, there are buttons for 'INS', 'HTML' (with a dropdown arrow), a circular icon, and 'Spaces: 4'.

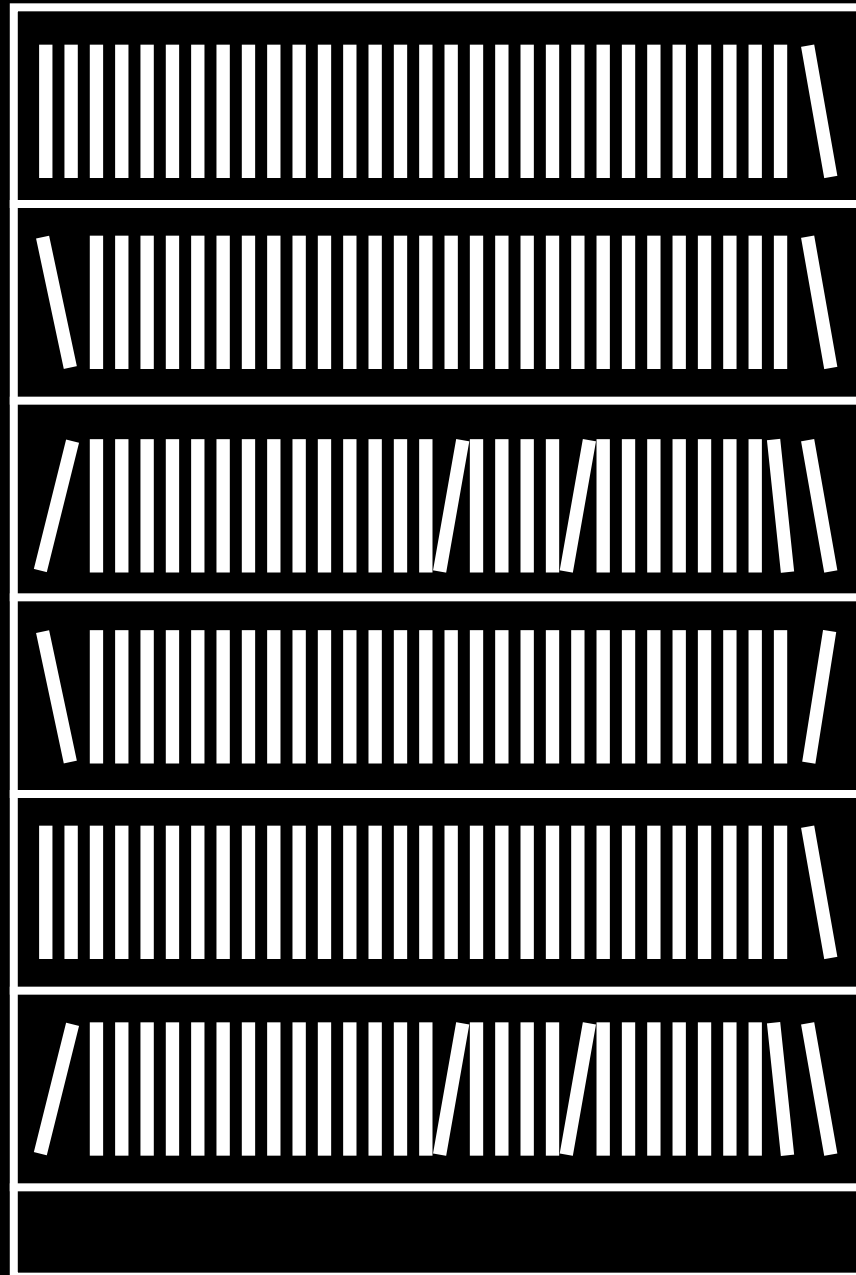
What CSS looks like



The screenshot shows the Brackets code editor interface. The title bar indicates the file path: `/Users/fabianhijkema/Desktop/index.html (Getting Started) — Brackets`. The left sidebar, titled "Working Files", lists the following files: `index.html`, `main.css`, and a folder named `screenshots`. The main editor area displays CSS code with line numbers from 10 to 40. The code defines a `<style>` block containing three selectors: `#container`, `.bar`, and `#left` and `#right`. The `#container` selector sets `background-color: #f7f7f7`, `width: 600px`, `height: 600px`, `margin: 50px auto`, and `position: relative`. The `.bar` selector sets `height: 400px`, `width: 80px`, `color: blue`, and `position: absolute`. The `#left` selector sets `left: 50%`, `color: blue`, `margin-left: -70px`, `top: 50%`, `margin-top: -215px`, and `transform: rotate(30deg)`. The `#right` selector sets `right: 50%`, `margin-right: -70px`, `top: 50%`, and `margin-top: -215px`. The status bar at the bottom shows "Line 51, Column 14 — 61 Lines", "INS", "HTML", and "Spaces: 4".

```
10      <style>
11      #container {
12          background-color: #f7f7f7;
13          width: 600px;
14          height: 600px;
15          margin: 50px auto;
16          position: relative;
17      }
18
19      .bar {
20          height: 400px;
21          width: 80px;
22          color: blue;
23          position: absolute;
24      }
25
26
27      #left {
28          left: 50%;
29          color: blue;
30          margin-left: -70px;
31          top: 50%;
32          margin-top: -215px;
33          transform: rotate(30deg);
34      }
35
36      #right {
37          right: 50%;
38          margin-right: -70px;
39          top: 50%;
40          margin-top: -215px;
```

Working together: HTML and CSS are like a bookcase



HTML is material + content + structure

```
<shelf>
```

```
  <novels>
```

```
    <book></book>
```

```
    <book></book>
```

```
    <book></book>
```

```
  </novels>
```

```
  <comics>
```

```
    <book></book>
```

```
    <book></book>
```

```
    <book></book>
```

```
  </comics>
```

```
</shelf>
```

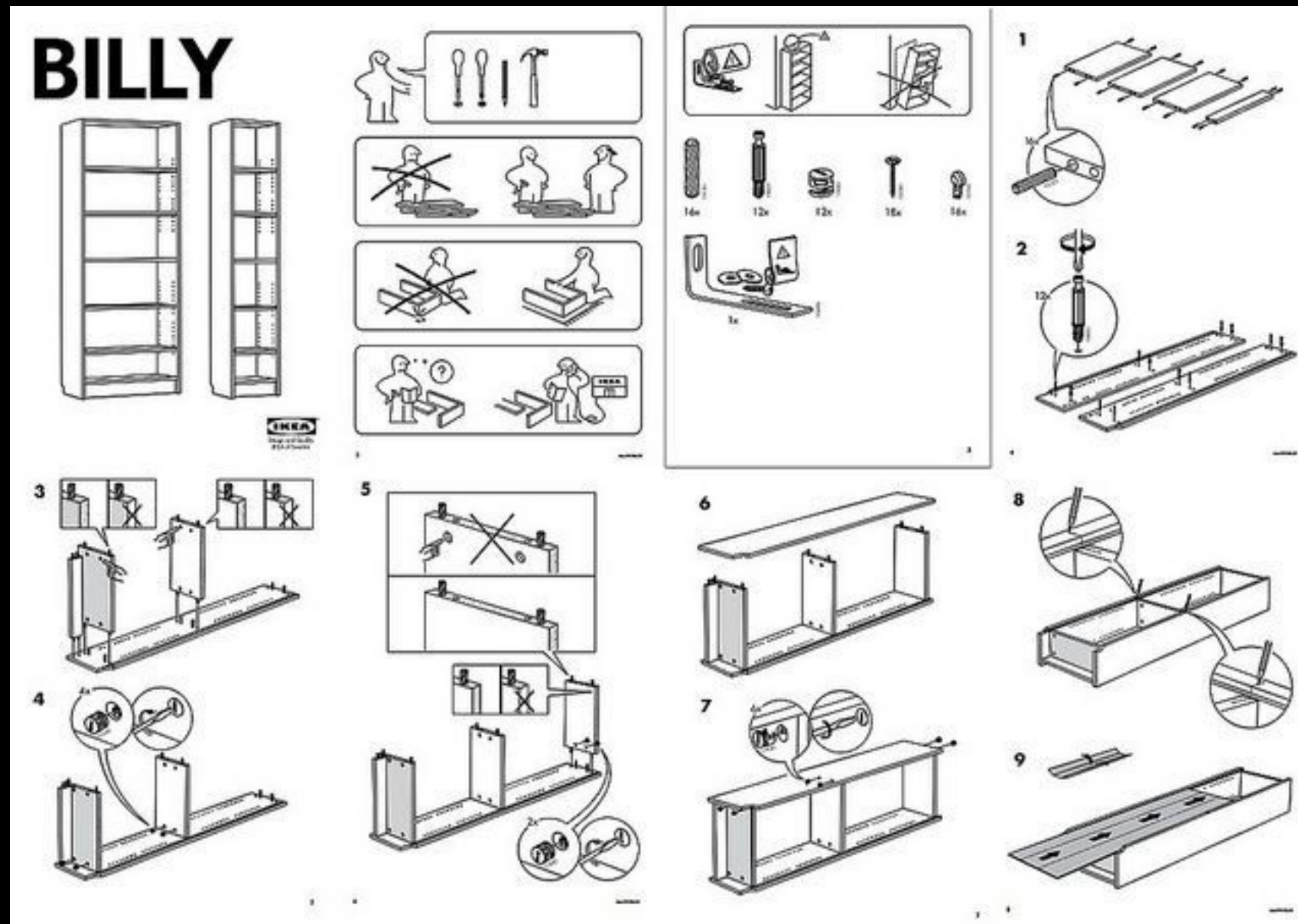
CSS is design + measurements

```
bookcase {  
    width: 80cm;  
    height: 200cm;  
    background-color: white;  
}  
novels, comics {  
    width: 50%;  
}  
book {  
    font-family: comic sans;  
    background-color: red;  
}
```

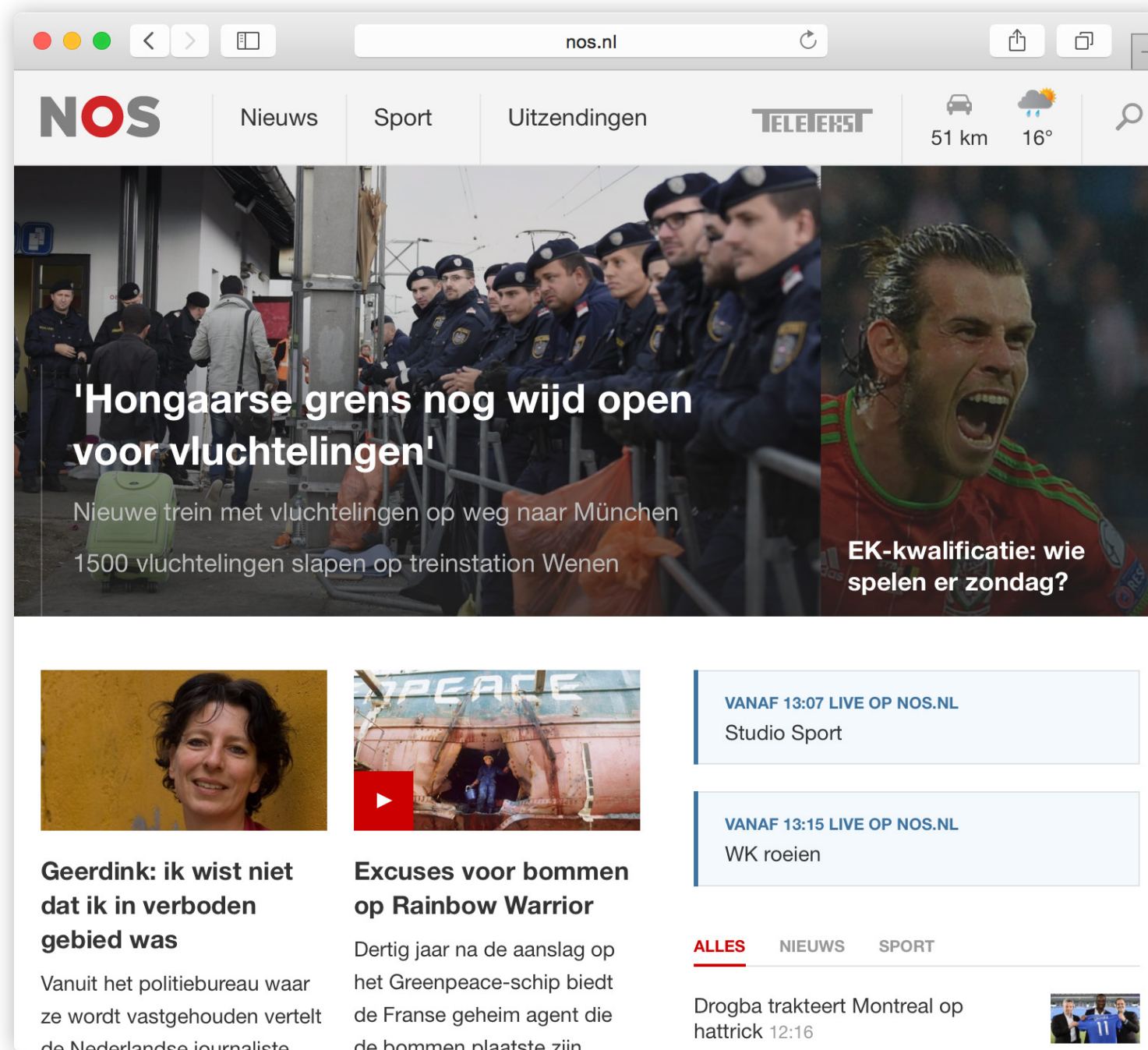
HTML without CSS



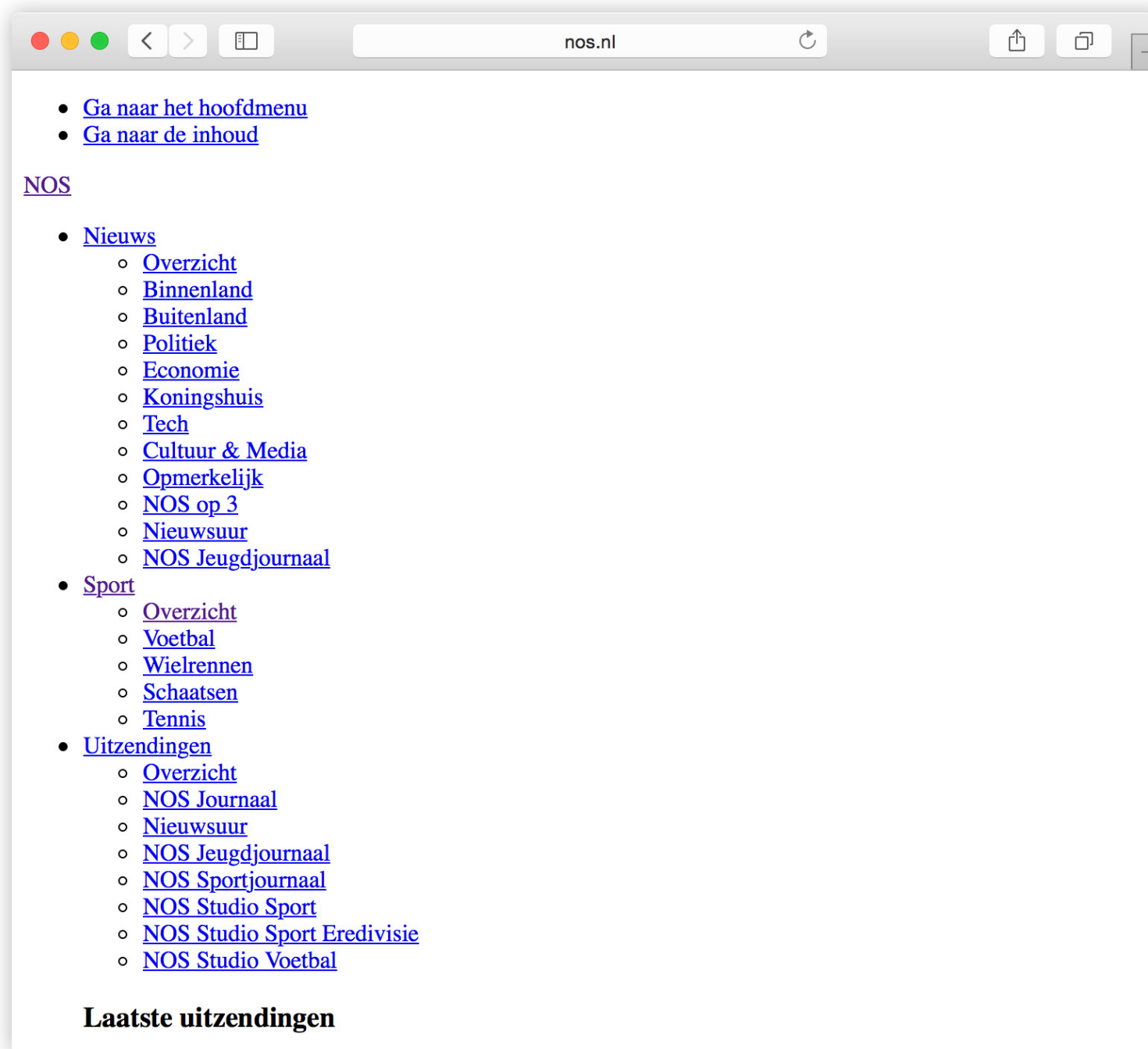
CSS without HTML



A website with CSS



A website without CSS



HTML consists of HTML elements – Some examples

<html> </html>
<body> </body>

Examples of single
HTML elements

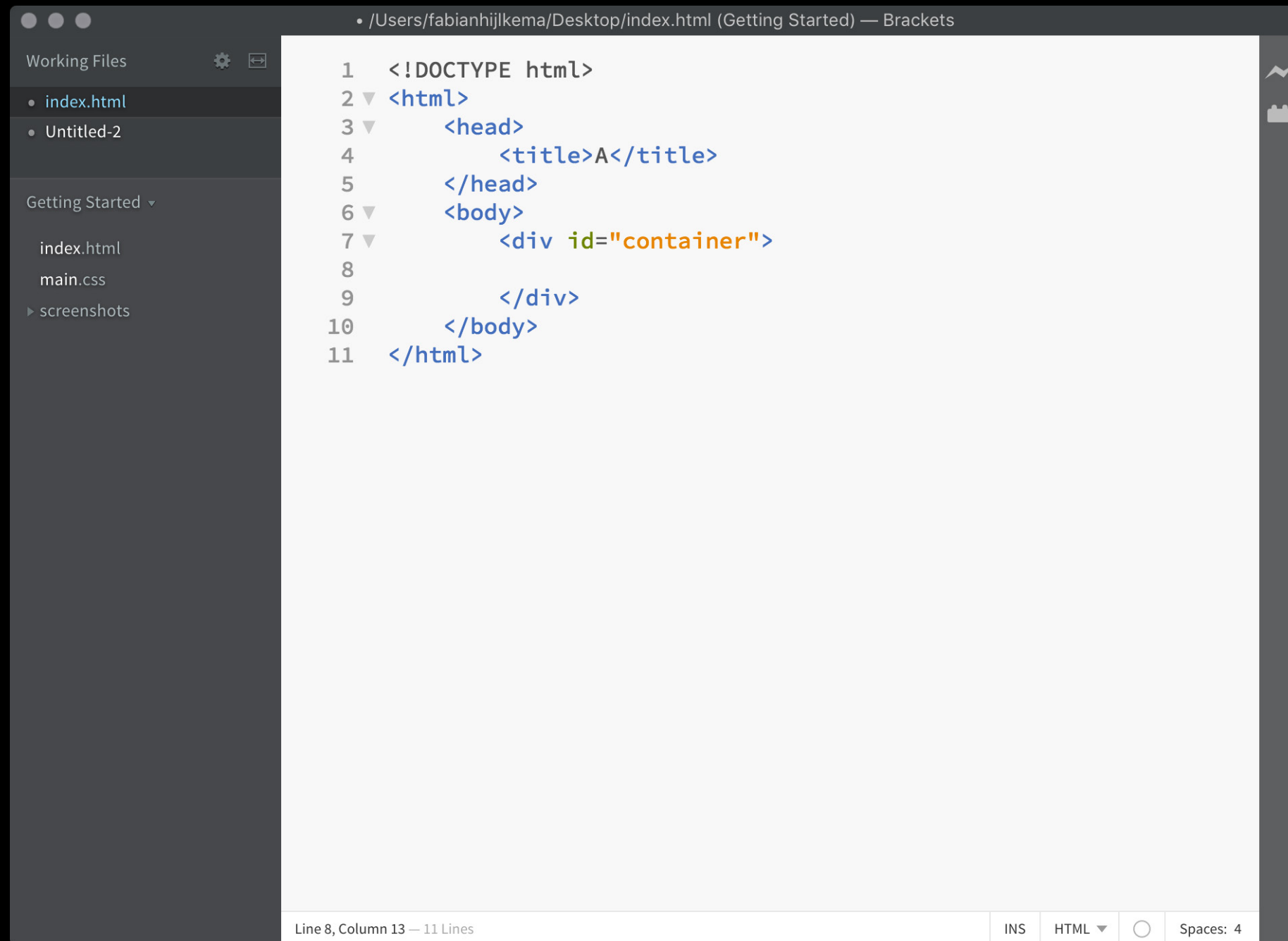
Block elements

<div> </div>
<p> </p>

Inline elements

<button> </button>

Very basic HTML document (index.html)



```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5    </head>
6    <body>
7      <div id="container">
8
9      </div>
10   </body>
11  </html>
```

Line 8, Column 13 — 11 Lines

INS HTML Spaces: 4

<doing>

Let's do something

<doing>

First, create a new folder for your website on your computer. So we keep our desktop clean :-)

<doing>

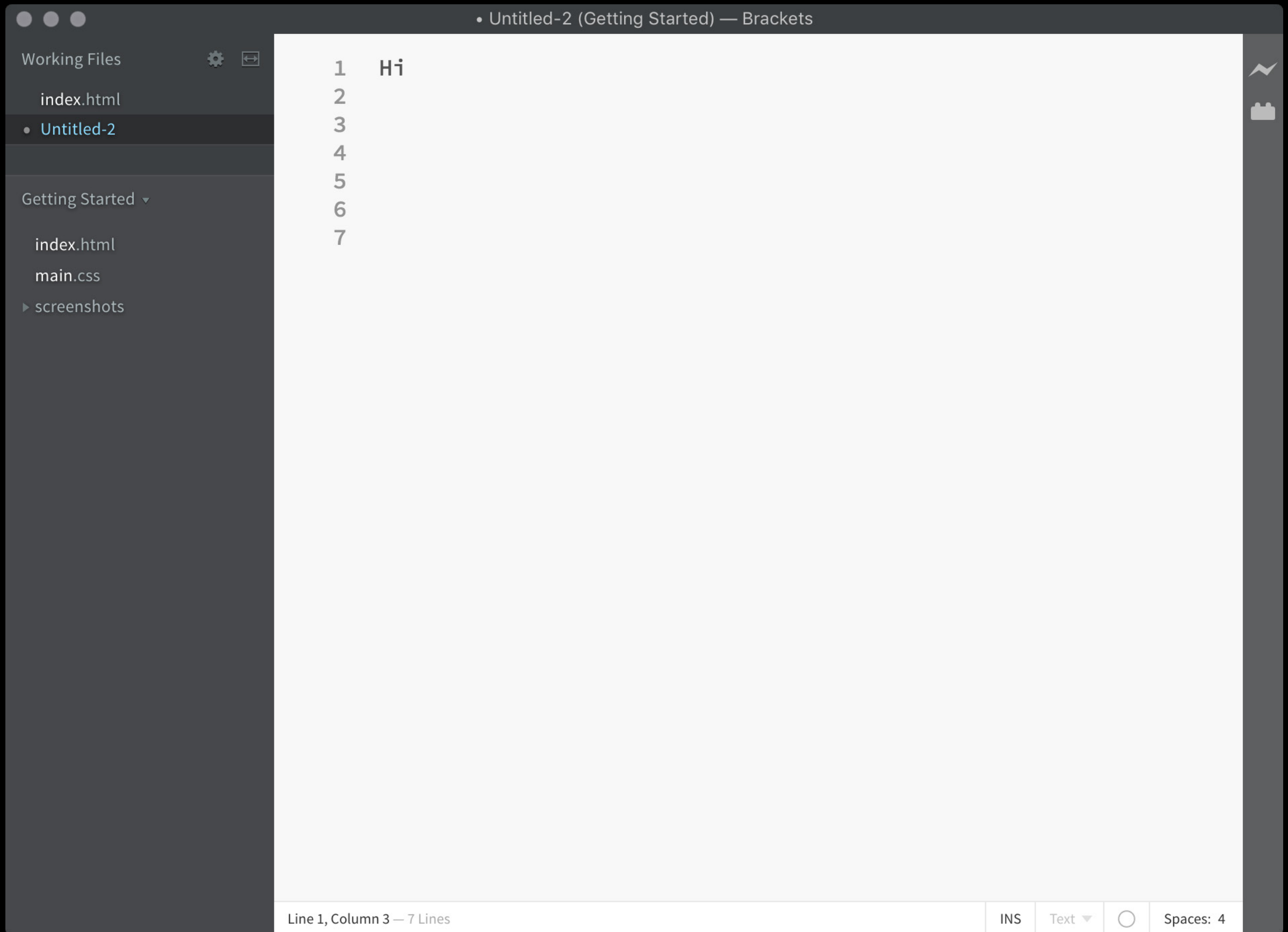
Open Brackets

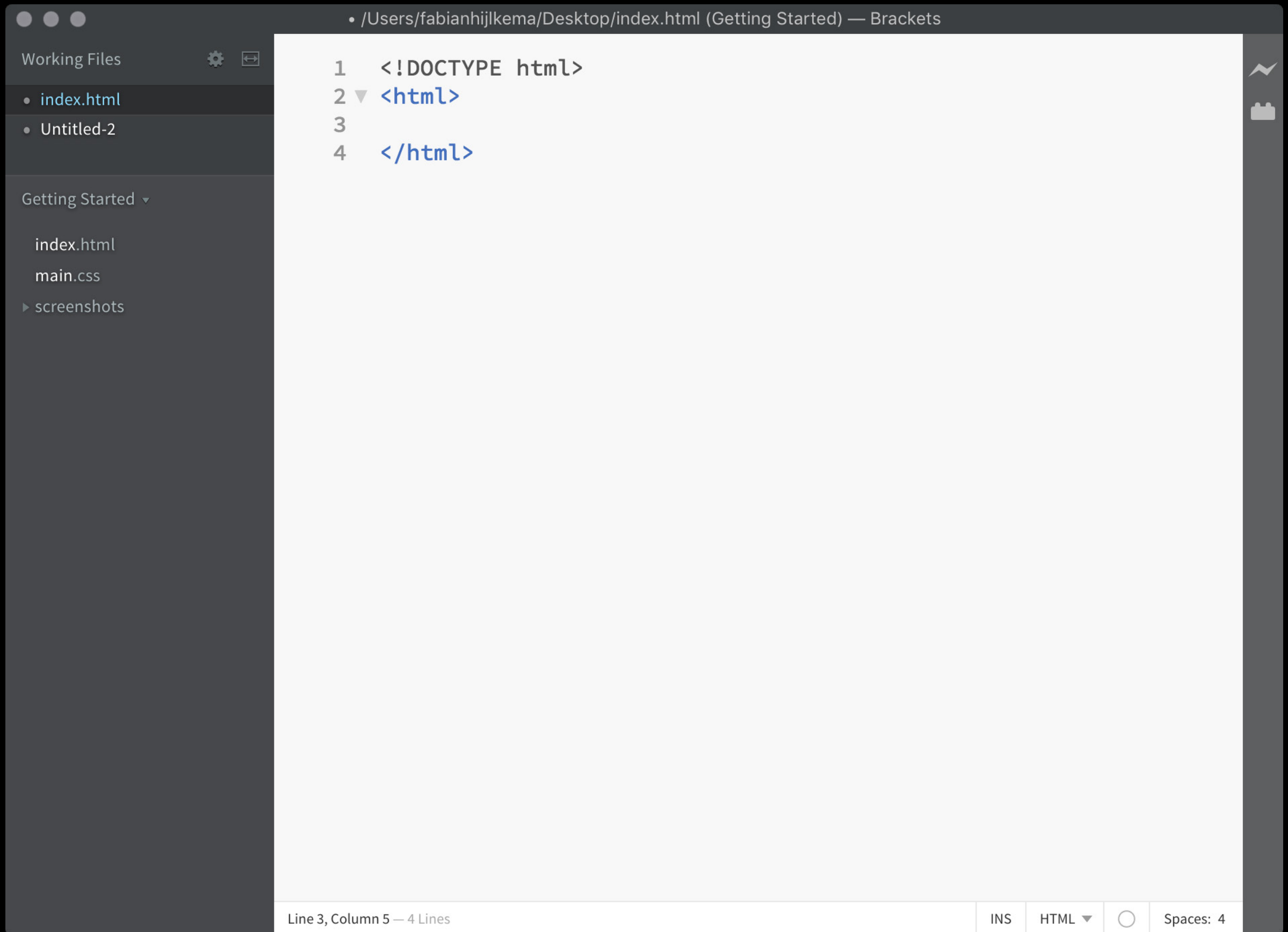
(<http://brackets.io/>)

A text editor to
write your HTML and
CSS code in.

<doing>

Save a new document
as index.html file.
Drag the file to your
browser to preview.





Working Files

• index.html

• Untitled-2

Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  ▾ <html>
3  ▾   <head>
4
5     </head>
6  ▾   <body>
7
8     </body>
9  </html>
```

Line 4, Column 9 — 9 Lines

INS

HTML ▾



Spaces: 4

Working Files

- index.html
- Untitled-2

Getting Started ▾

- index.html
- main.css
- ▶ screenshots

```
1  <!DOCTYPE html>
2  ▼ <html>
3  ▼   <head>
4      <title>A</title>
5   </head>
6  ▼   <body>
7      |
8   </body>
9  </html>
```

Line 7, Column 9 — 9 Lines

INS

HTML ▾



Spaces: 4

Working Files

• index.html

• Untitled-2

Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5    </head>
6    <body>
7      <div id="container">
8
9      </div>
10    </body>
11  </html>
```

Line 8, Column 13 — 11 Lines

INS

HTML ▾



Spaces: 4

Working Files

• index.html

• Untitled-2

Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5      <style></style>
6    </head>
7    <body>
8      <div id="container">
9
10     </div>
11   </body>
12 </html>
```

Line 5, Column 16 — 12 Lines

INS

HTML ▾



Spaces: 4

Working Files

• index.html

Getting Started ▾

index.html

main.css

► screenshots

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5      <style>
6        #container {
7          background-color: grey;
8          width: 600px;
9          height: 600px;
10         margin: 50px auto;
11         position: relative;
12       }
13     </style>
14   </head>
15   <body>
16     <div id="container">
17
18     </div>
19   </body>
20 </html>
```

Working Files

• index.html

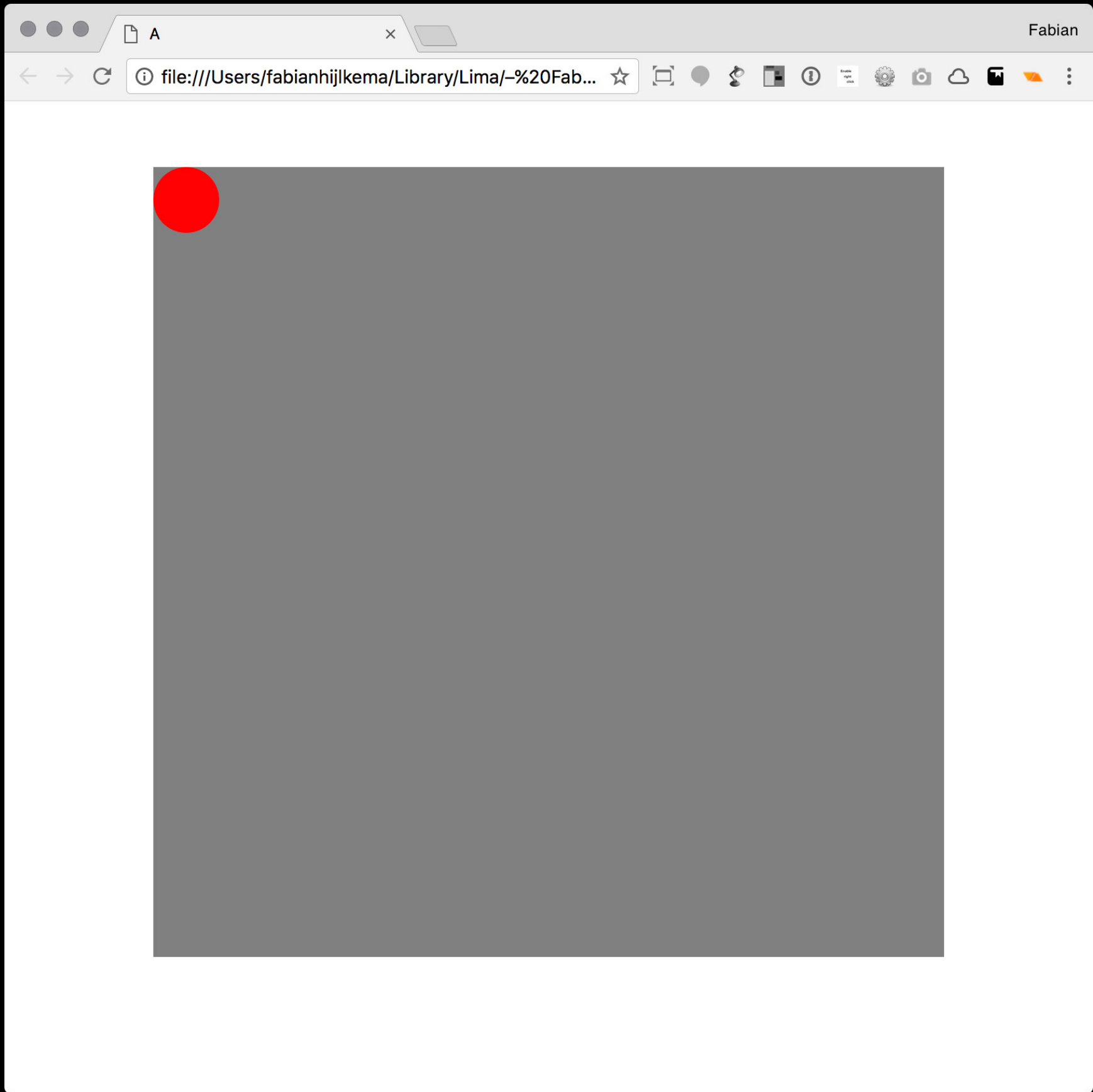
Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>A</title>
5      <style>
6          #container {
7              background-color: grey;
8              width: 600px;
9              height: 600px;
10             margin: 50px auto;
11             position: relative;
12         }
13         .circle {
14             height: 50px;
15             width: 50px;
16             border-radius: 50%;
17             background-color: red;
18         }
19     </style>
20 </head>
21 <body>
22     <div id="container">
23         <div class="circle"></div>
24     </div>
25 </body>
26 </html>
```



Working Files

• index.html

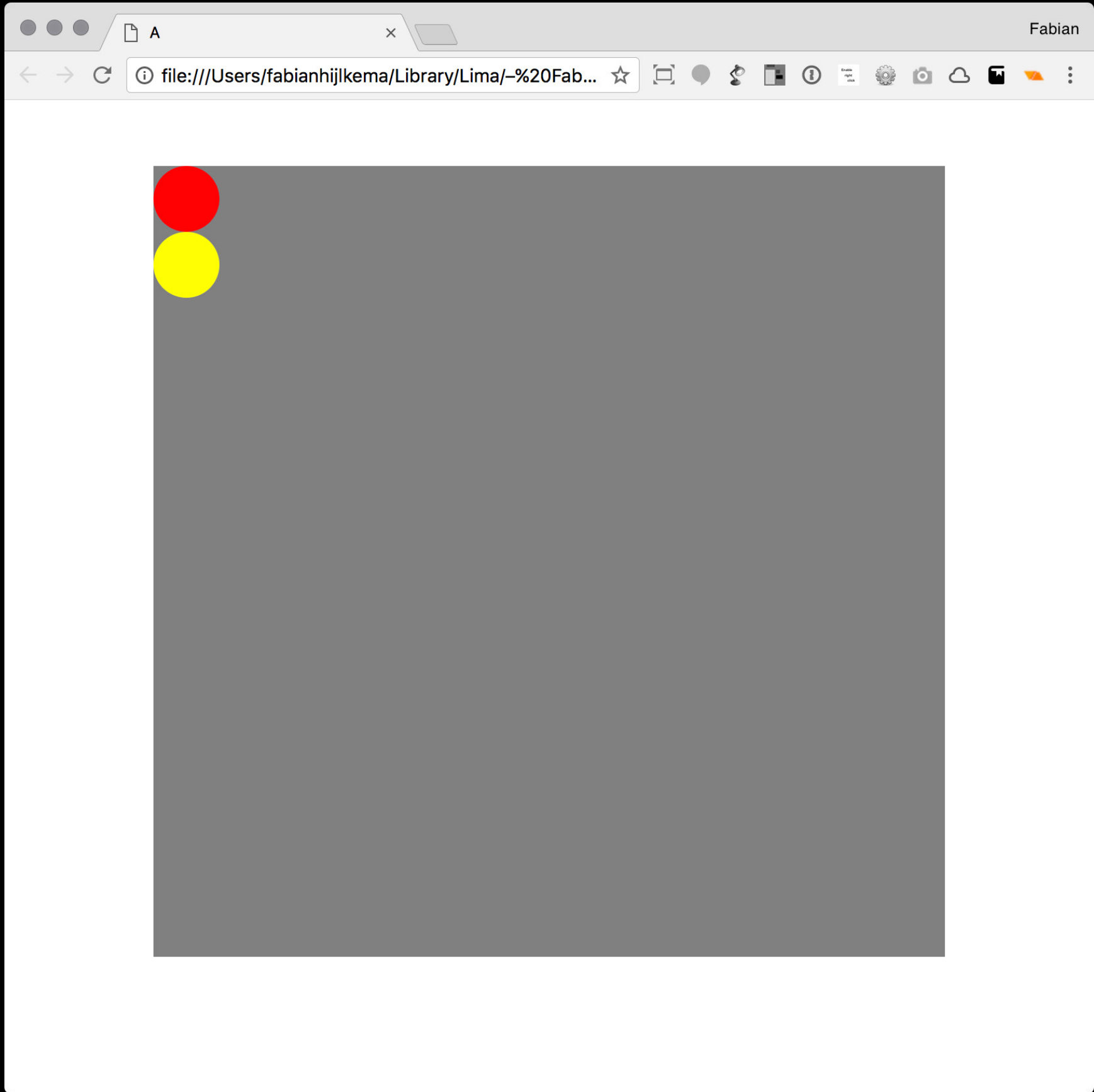
Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>A</title>
5      <style>
6          #container {
7              background-color: grey;
8              width: 600px;
9              height: 600px;
10             margin: 50px auto;
11             position: relative;
12         }
13         .circle {
14             height: 50px;
15             width: 50px;
16             border-radius: 50%;
17             background-color: red;
18         }
19         .circle.yellow {
20             background-color: yellow;
21         }
22     </style>
23 </head>
24 <body>
25     <div id="container">
26         <div class="circle"></div>
27         <div class="circle yellow"></div>
28     </div>
29 </body>
30 </html>
```



So . . . more specific is
more important.

“CSS specificity”

Working Files

• index.html

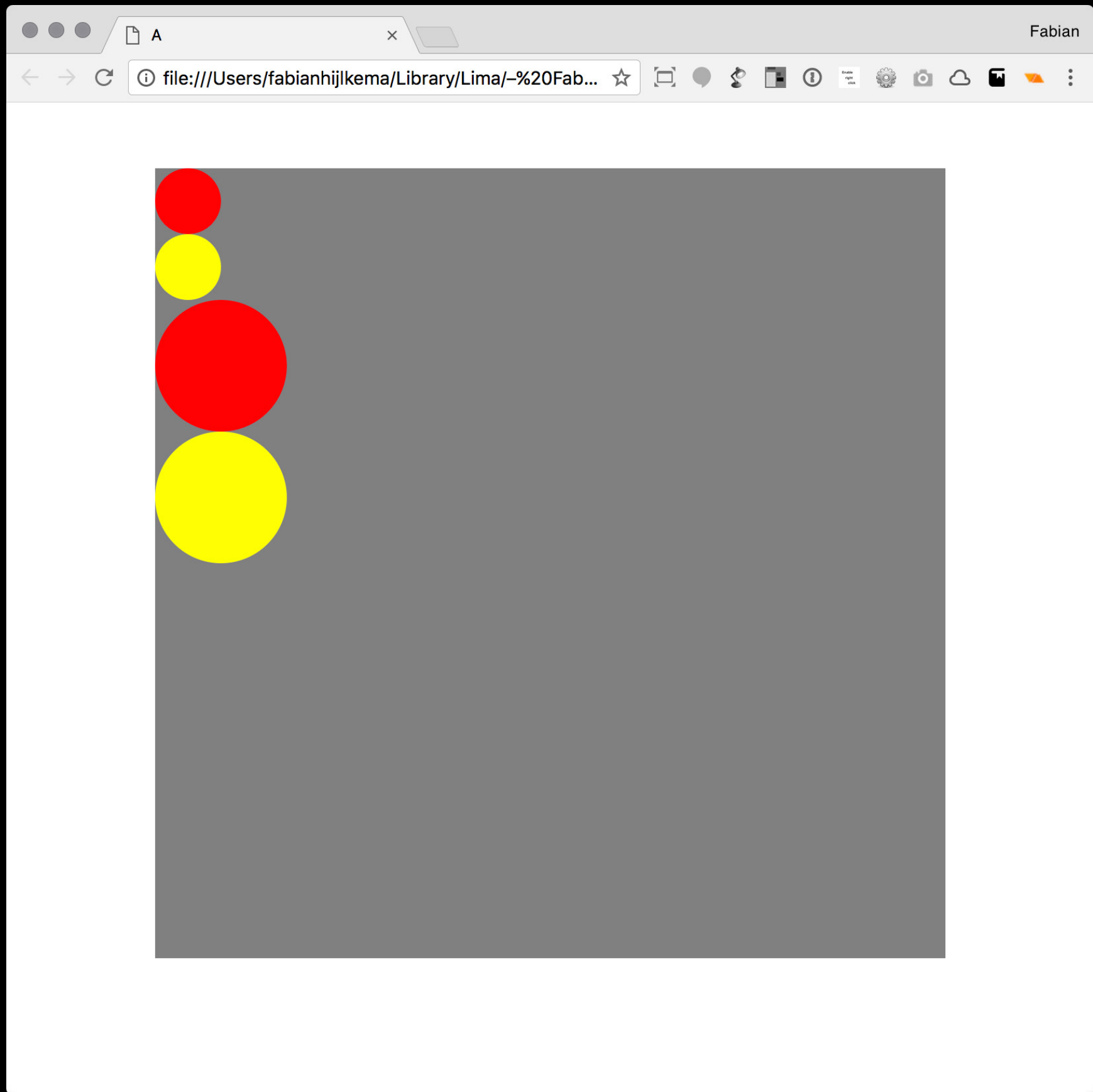
Getting Started ▾

index.html

main.css

► screenshots

```
5      <style>
6      #container {
7          background-color: grey;
8          width: 600px;
9          height: 600px;
10         margin: 50px auto;
11         position: relative;
12     }
13     .circle {
14         height: 50px;
15         width: 50px;
16         border-radius: 50%;
17         background-color: red;
18     }
19     .circle.yellow {
20         background-color: yellow;
21     }
22     .circle.big {
23         width: 100px;
24         height: 100px;
25     }
26     </style>
27 </head>
28 <body>
29     <div id="container">
30         <div class="circle"></div>
31         <div class="circle yellow"></div>
32         <div class="circle big"></div>
33         <div class="circle big yellow"></div>
34     </div>
35 </body>
36 </html>
```



Working Files

• index.html

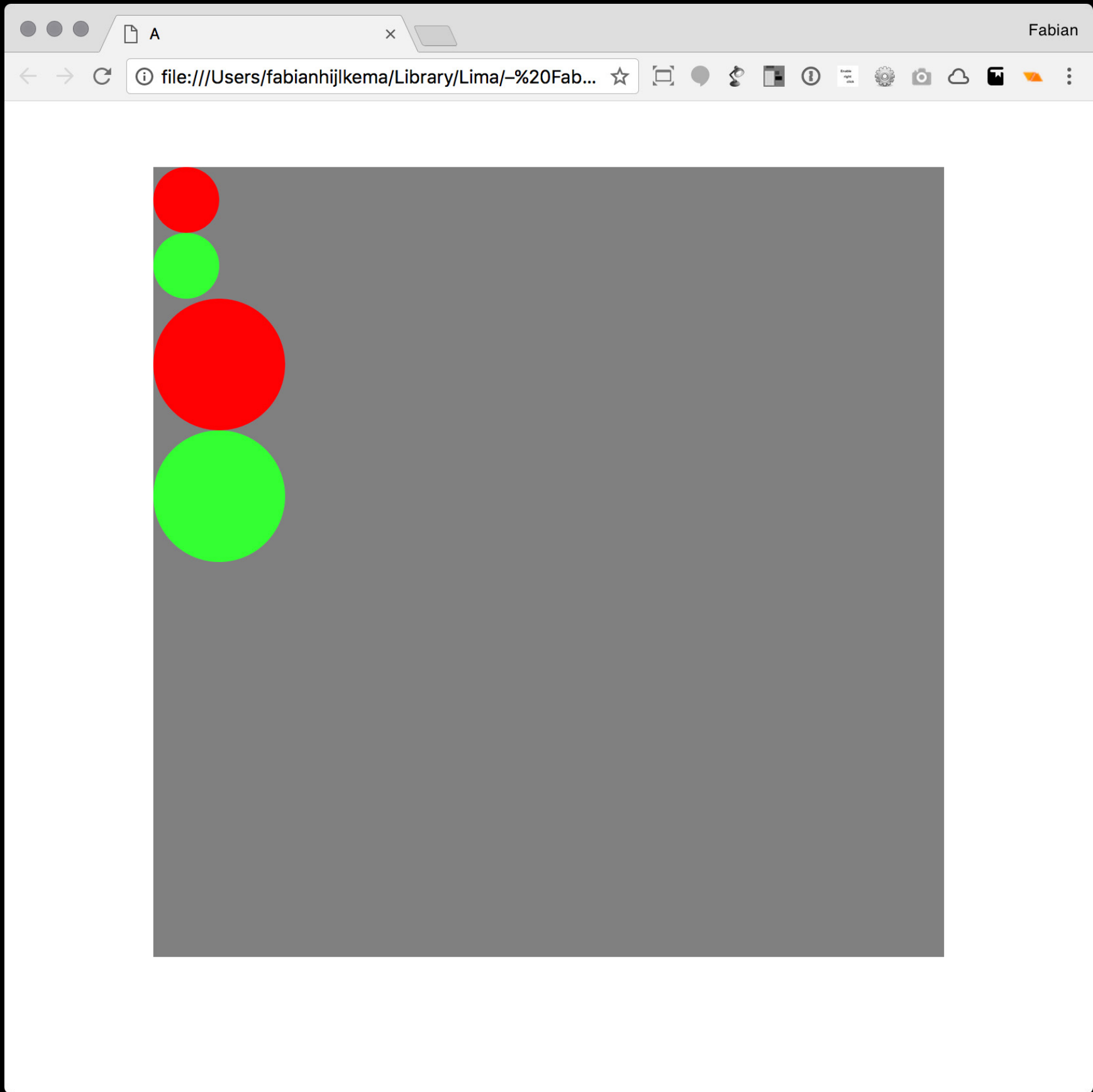
Getting Started ▾

index.html

main.css

► screenshots

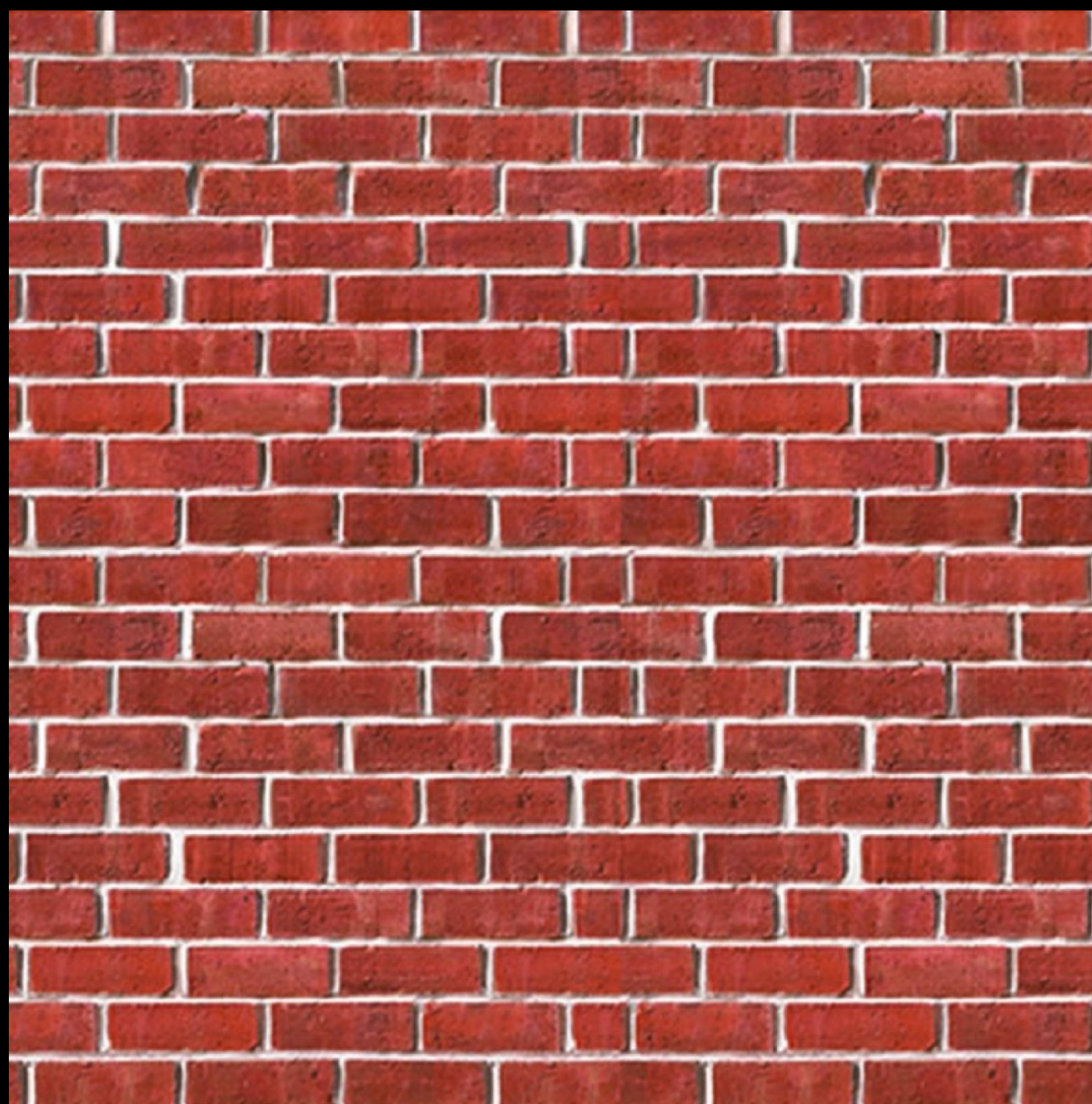
```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>A</title>
5      <style>
6        #container {
7          background-color: grey;
8          width: 600px;
9          height: 600px;
10         margin: 50px auto;
11         position: relative;
12       }
13       .circle {
14         height: 50px;
15         width: 50px;
16         border-radius: 50%;
17         background-color: red;
18       }
19       .circle.yellow {
20         background-color: #33ff33;
21       }
22       .circle.big {
23         width: 100px;
24         height: 100px;
25       }
26     </style>
27   </head>
28   <body>
29     <div id="container">
30       <div class="circle"></div>
31       <div class="circle yellow"></div>
32       <div class="circle big"></div>
```



5 minute break

<doing>

CSS positioning and the HTML flow



● ● ●

/Users/fabianhijkema/stack/- Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

2 ▾ <html>

3 ▾ <head>

4 <title>A</title>

5 <style>

6 ▾ #container {

7 background-color: grey;

8 width: 600px;

9 height: 600px;

10 margin: 50px auto;

11 position: relative;

12 }

13 ▾ .circle {

14 height: 50px;

15 width: 50px;

16 border-radius: 50%;

17 background-color: red;

18 position: absolute;

19 opacity: 0.5;

20 }

21 ▾ .circle.yellow {

22 background-color: #33ff33;

23 }

24 ▾ .circle.big {

25 width: 100px;

26 height: 100px;

27 }

28

29 </style>

30 </head>

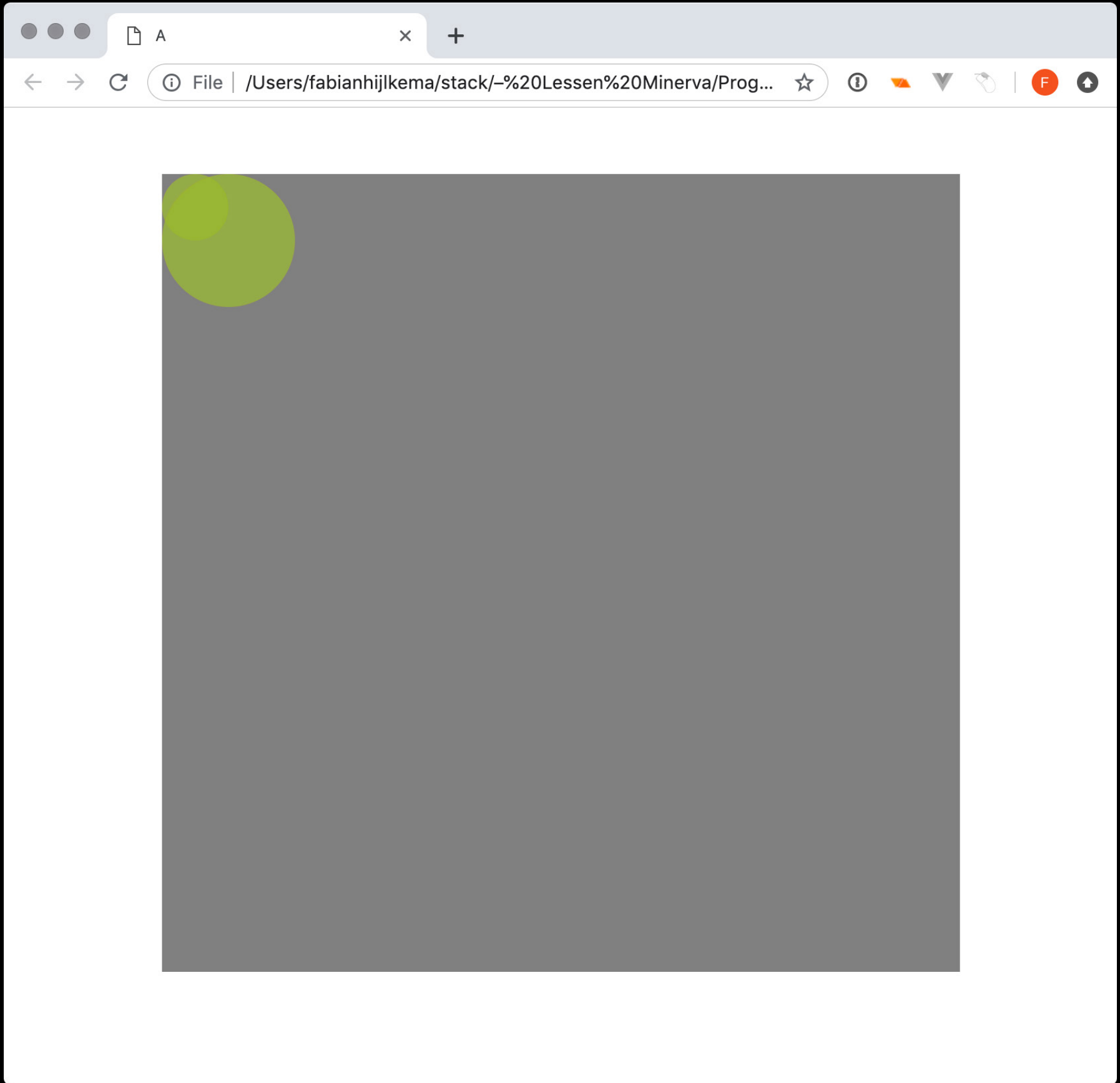
31 ▾ <body>

32 ▾ <div id="container">

33 <div class="circle"></div>

Line 18, Column 1 — Selected 2 lines — 39 Lines

INS HTML ▾ ○ Spaces: 4



• /Users/fabianhijkema/stack/– Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html
index (1).html
• index.html

Getting Started ▾

index.html
main.css
▶ screenshots

```
9             height: 600px;
10            margin: 50px auto;
11            position: relative;
12        }
13        .circle {
14            height: 50px;
15            width: 50px;
16            border-radius: 50%;
17            background-color: red;
18            position: absolute;
19            opacity: 0.5;
20        }
21        .circle.yellow {
22            background-color: #33ff33;
23        }
24        .circle.big {
25            width: 100px;
26            height: 100px;
27        }
28
29        </style>
30    </head>
31    <body>
32        <div id="container">
33            <div class="circle" id="one"></div>
34            <div class="circle yellow"></div>
35            <div class="circle big"></div>
36            <div class="circle big yellow"></div>
37        </div>
38    </body>
39 </html>
```

Line 34, Column 1 — Selected 1 line — 39 Lines

INSHTML○Spaces: 4

• /Users/fabianhijkema/stack/– Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

• index.html

Getting Started ▾

index.html

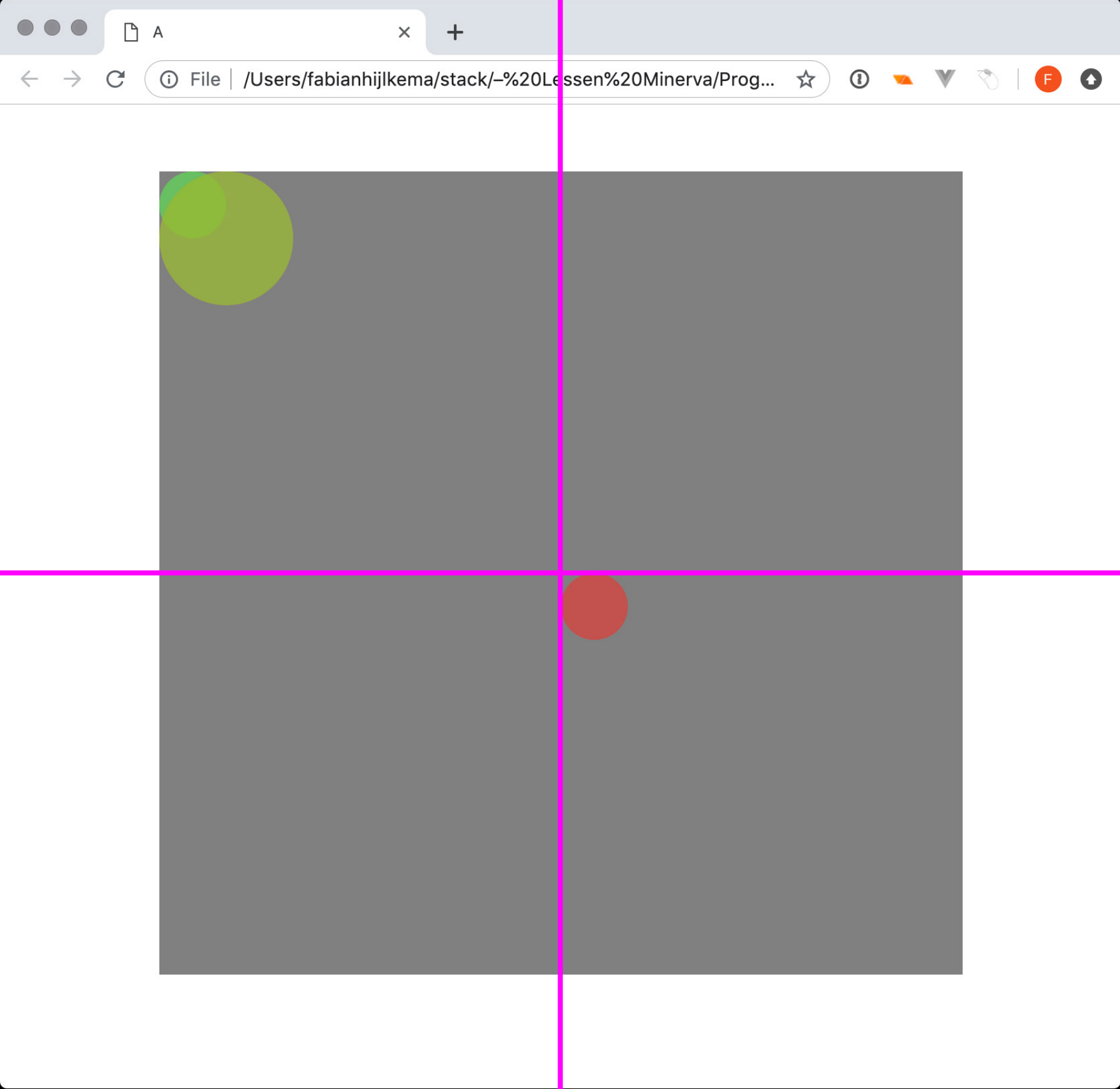
main.css

▶ screenshots

```
14         height: 50px;
15         width: 50px;
16         border-radius: 50%;
17         background-color: red;
18         position: absolute;
19         opacity: 0.5;
20     }
21     .circle.yellow {
22         background-color: #33ff33;
23     }
24     .circle.big {
25         width: 100px;
26         height: 100px;
27     }
28
29     #one {
30         top: 50%;
31         left: 50%;
32     }
33
34     </style>
35 </head>
36 <body>
37     <div id="container">
38         <div class="circle" id="one"></div>
39         <div class="circle yellow" id="two"></div>
40         <div class="circle big"></div>
41         <div class="circle big yellow"></div>
42     </div>
43 </body>
44 </html>
```

Line 32, Column 14 — Selected 4 lines — 44 Lines

INS HTML ▾ ○ Spaces: 4



● ● ●

/Users/fabianhijkema/stack/- Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

9

10

11

12

13 ▾

14

15

16

17

18

19

20

21 ▾

22

23

24 ▾

25

26

27

28

29 ▾

30

31

32

33

34

35

36

37 ▾

38 ▾

39

40

height: 600px;

margin: 50px auto;

position: relative;

}

.circle {

height: 50px;

width: 50px;

border-radius: 50%;

background-color: red;

position: absolute;

opacity: 0.5;

}

.circle.yellow {

background-color: #33ff33;

}

.circle.big {

width: 100px;

height: 100px;

}

#one {

top: 50%;

left: 50%;

transform: translate(-50%, -50%);

}

</style>

</head>

<body>

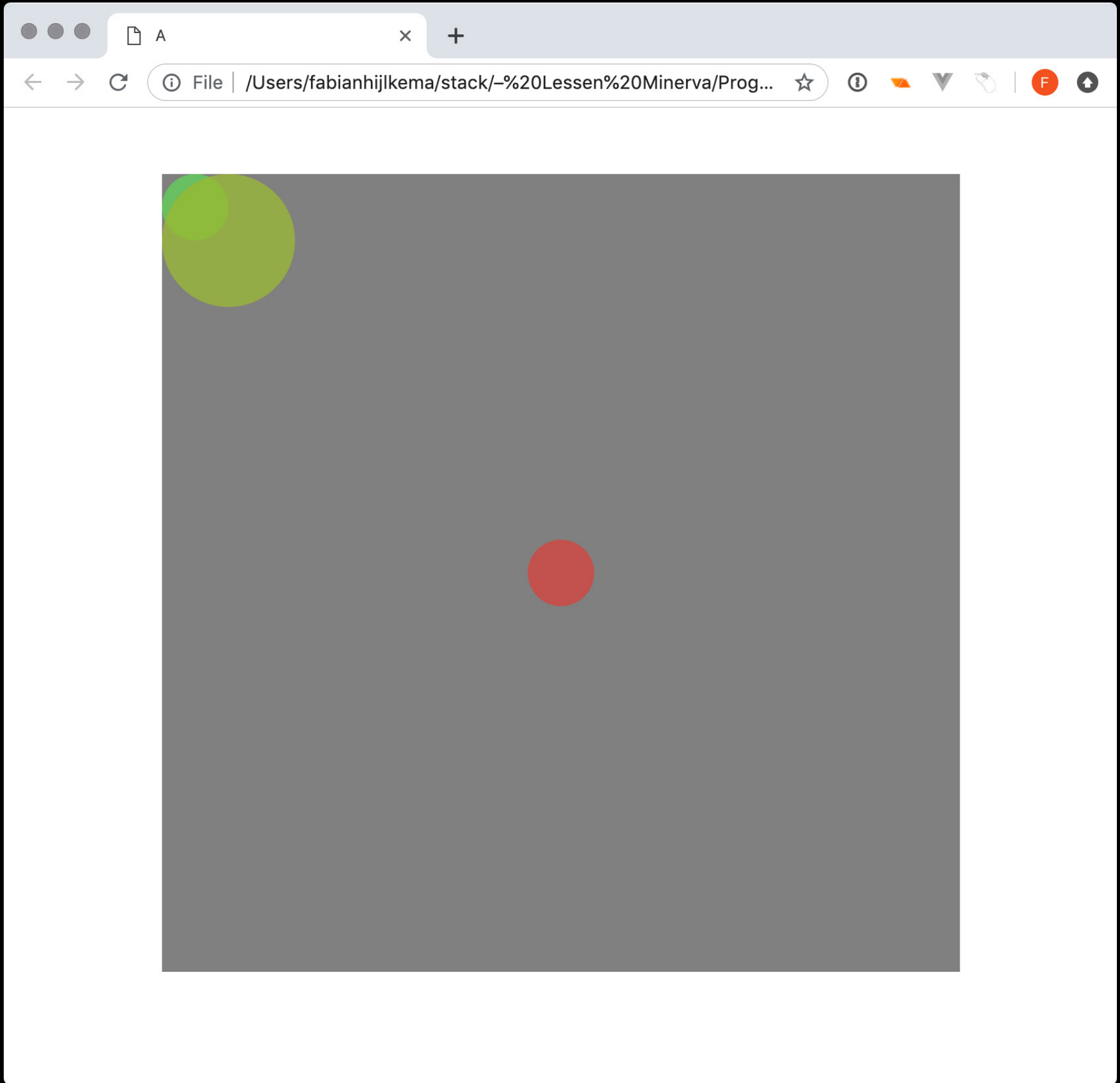
<div id="container">

<div class="circle" id="one"></div>

<div class="circle yellow"></div>

Line 33, Column 1 — Selected 1 line — 45 Lines

INS HTML ▾ ○ Spaces: 4



● ● ●

/Users/fabianhijkema/stack/- Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

19

20

21 ▾

22

23

24 ▾

25

26

27

28

29 ▾

30

31

32

33

34

35 ▾

36

37

38

39

40

41

42 ▾

43 ▾

44

45

46

47

48

49

50

```
opacity: 0.5;
}
.circle.yellow {
    background-color: #33ff33;
}
.circle.big {
    width: 100px;
    height: 100px;
}

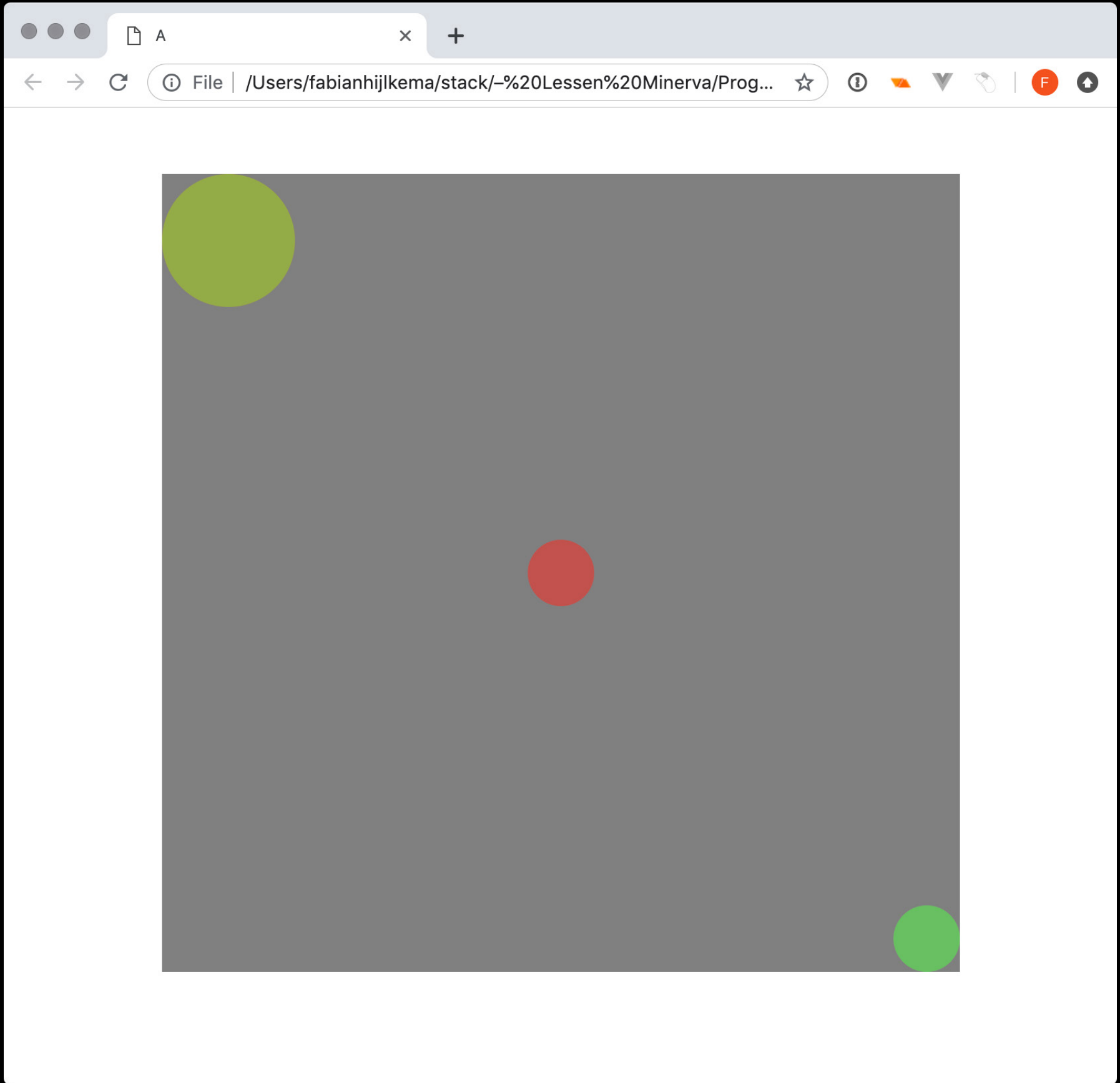
#one {
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
}

#two {
    bottom: 0px;
    right: 0px;
}

</style>
</head>
<body>
    <div id="container">
        <div class="circle" id="one"></div>
        <div class="circle yellow" id="two"></div>
        <div class="circle big"></div>
        <div class="circle big yellow"></div>
    </div>
</body>
</html>
```

Line 38, Column 14 — Selected 4 lines — 50 Lines

INS HTML ▾ ○ Spaces: 4



• /Users/fabianhijkema/stack/– Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

• index.html

Getting Started ▾

index.html

main.css

▶ screenshots

```
19         opacity: 0.5;
20     }
21     .circle.yellow {
22         background-color: #33ff33;
23     }
24     .circle.big {
25         width: 100px;
26         height: 100px;
27     }
28
29     #one {
30         top: 50%;
31         left: 50%;
32         transform: translate(-50%, -50%);
33     }
34
35     #two {
36         bottom: 0px;
37         right: 0px;
38     }
39
40     </style>
41 </head>
42 <body>
43     <div id="container">
44         <div class="circle" id="one"></div>
45         <div class="circle yellow" id="two"></div>
46         <div class="circle big"></div>
47         <div class="circle big yellow rotate"></div>
48     </div>
49 </body>
50 </html>
```

Line 48, Column 1 — Selected 1 line — 50 Lines

INSHTML○Spaces: 4

● ● ●

/Users/fabianhijkema/stack/- Lessen Minerva/Programming 101/Lesson 1/index.html (Getting Started) — Brackets

Working Files

lesson3b.html

index (1).html

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

25

width: 100px;

26

height: 100px;

27

}

28

29 ▾

#one {

30

top: 50%;

31

left: 50%;

32

transform: translate(-50%, -50%);

33

}

34

35 ▾

#two {

36

bottom: 0px;

37

right: 0px;

38

}

39

40 ▾

.circle.rotate {

41

width: 20px;

42

transform: rotate(45deg);

43

}

44

45

</style>

46

</head>

47 ▾

<body>

48 ▾

<div id="container">

49

<div class="circle" id="one"></div>

50

<div class="circle yellow" id="two"></div>

51

<div class="circle big"></div>

52

<div class="circle big yellow rotate"></div>

53

</div>

54

</body>

55

</html>

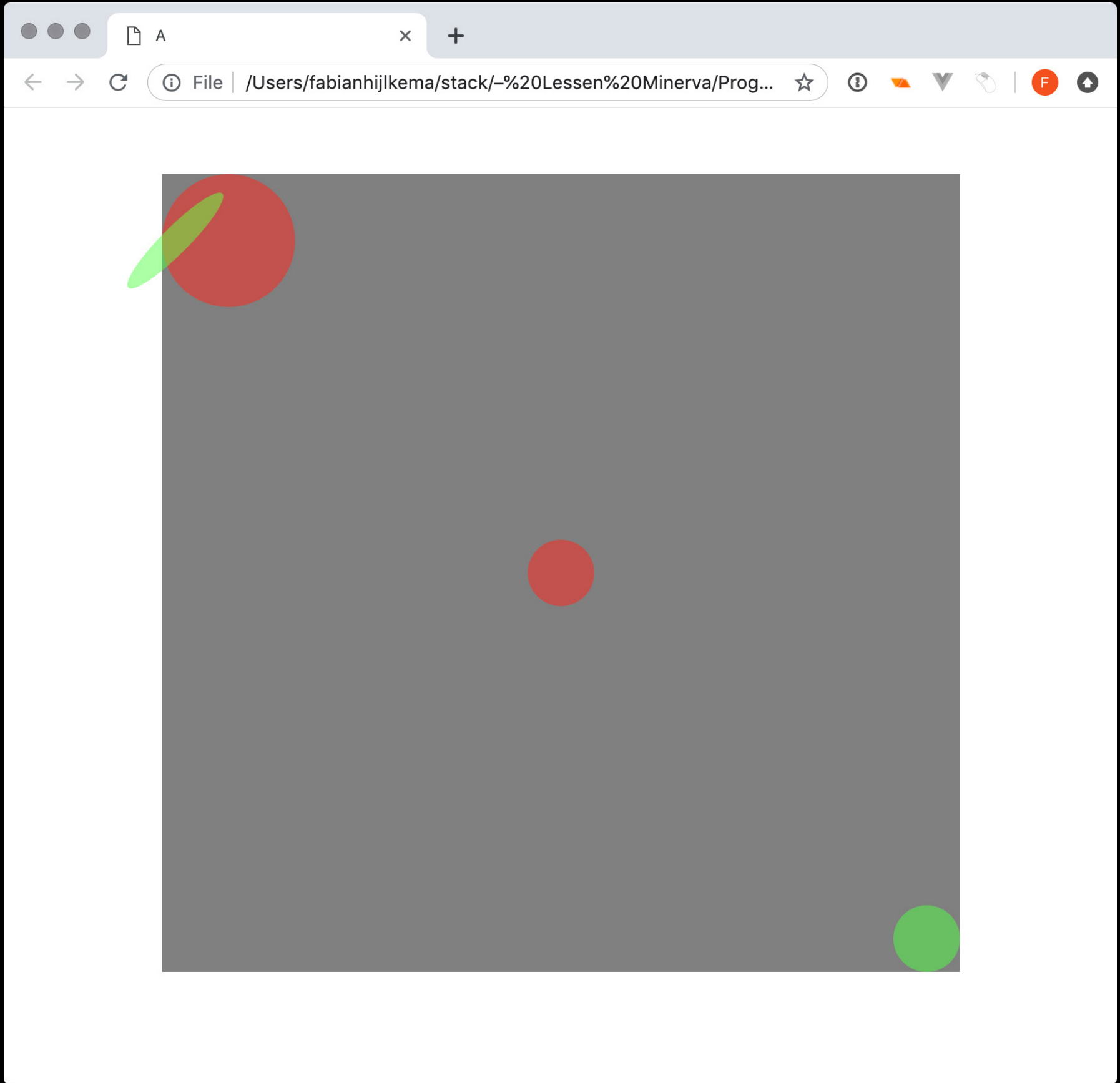
Line 43, Column 14 — Selected 4 lines — 55 Lines

INS

HTML ▾

○

Spaces: 4



<doing>

CSS transitions and specificity

<doing>

Download lesson1.zip
from [http://artez.fabianhijkema.nl/
projectweek/coding](http://artez.fabianhijkema.nl/projectweek/coding)

<doing>

Open up example2.html
in both Brackets and
your browser.

Working Files

• index.html

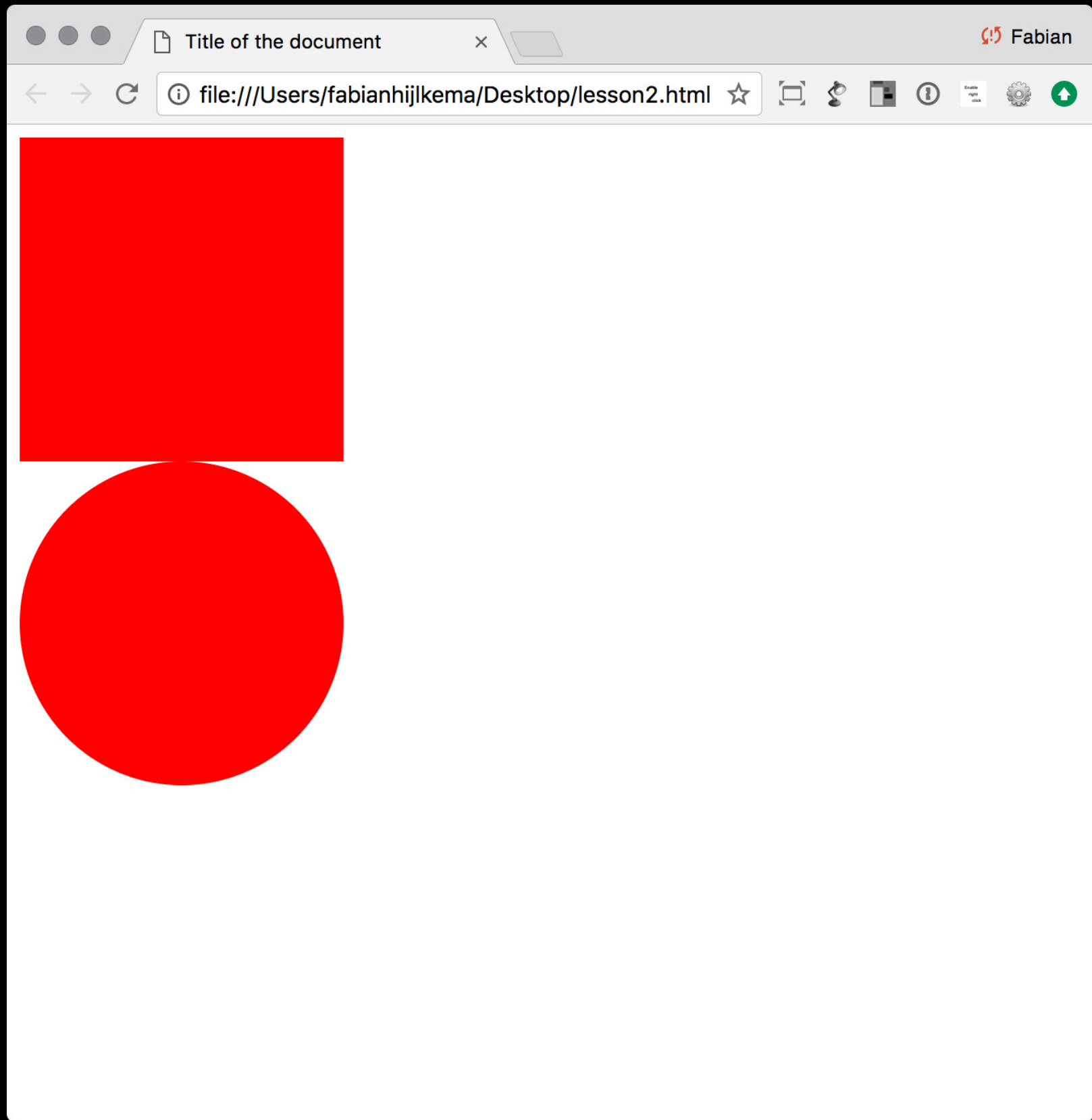
Getting Started ▾

index.html

main.css

▶ screenshots

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <meta charset="UTF-8">
5      <title>Title of the document</title>
6      <style>
7          .object {
8              width: 200px;
9              height: 200px;
10             background-color: red;
11         }
12
13         .object.round {
14             border-radius: 50%;
15         }
16     </style>
17 </head>
18 <body>
19     <div class="object"></div>
20     <div class="object round"></div>
21 </body>
22 </html>
```



Working Files

• index.html

Getting Started ▾

index.html

main.css

► screenshots

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14             border-radius: 50%;
15         }
16
17         .object.blue {
18             background-color: blue;
19         }
20     </style>
21 </head>
22 <body>
23     <div class="object"></div>
24     <div class="object round blue"></div>
25 </body>
26 </html>
```

Working Files

• index.html

Getting Started ▾

index.html

main.css

► screenshots

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15         }
16
17         .object.blue {
18             background-color: blue;
19         }
20
21         #roundedobject {
22             border-radius: 10px;
23             background-color: black;
24         }
25
26     </style>
27 </head>
28 <body>
29     <div class="object"></div>
30     <div class="object round blue"></div>
31     <div id="roundedobject" class="object round blue"></div>
32 </body>
33 </html>
```

Working Files

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

• /Users/fabianhijlkema/Desktop/index.html (Getting Started) — Brackets

2 ▾ <html>

3 ▾ <head>

4 <meta charset="UTF-8">

5 <title>Title of the document</title>

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7 ▾ .object {

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14 border-radius: 50%;

15 }

16

17 ▾ .object.blue {

18 background-color: blue;

19 }

20

21 ▾ #roundedobject {

22 border-radius: 10px;

23 background-color: black;

24 }

25

26 ▾ .object:hover {

27 background-color: orange;

28 }

29

30 </style>

31 </head>

32 ▾ <body>

33 <div class="object"></div>

34 <div class="object round blue"></div>

35 <div id="roundedobject" class="object round blue"></div>

36 </body>

37 </html>

Working Files

• index.html

Getting Started ▾

index.html

main.css

► screenshots

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7 ▼      .object {
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18         background-color: blue;
19     }
20
21 ▼      #roundedobject {
22         border-radius: 10px;
23         background-color: black;
24     }
25
26 ▼      .object:hover {
27         background-color: orange;
28     }
29
30 ▼      .object.blue:hover {
31         background-color: fuchsia;
32     }
33
34     </style>
35 </head>
36 ▼ <body>
37     <div class="object"></div>
38     <div class="object round blue"></div>
39     <div id="roundedobject" class="object round blue"></div>
40 </body>
41 </html>
```

Working Files

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

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1  <!DOCTYPE html>
2  <html>
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5      <title>Title of the document</title>
6      <style>
7          .object {
8              width: 200px;
9              height: 200px;
10             background-color: red;
11             transition: all 400ms linear;
12         }
13
14         .object.round {
15             border-radius: 50%;
16         }
17
18         .object.blue {
19             background-color: blue;
20         }
21
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23             border-radius: 10px;
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Working Files

index.html

Getting Started ▾

index.html

main.css

▶ screenshots

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23        border-radius: 10px;
24        background-color: black;
25    }
26
27    .object: hover {
28        background-color: orange;
29        width: 400px;
30    }
31
32    .object.blue: hover {
33        background-color: fuchsia;
34    }
35
36    </style>
37    </head>
38    <body>
39        <div class="object"></div>
40        <div class="object round blue"></div>
41        <div id="roundedobject" class="object round blue"></div>
42    </body>
43    </html>
```

<doing>

Download "basis.html"
file to make your
ARTEZ characters in.

[http://artez.
fabianhijkema.nl/
projectweek/coding](http://artez.fabianhijkema.nl/projectweek/coding)

<doing>

Stay within the
600 × 600 pixels
container. We are
using this size
when it's uploaded.

<doing>

For tomorrow
create the
character A and R

<help>

7 simple videos

[www.dontfear
theinternet.com](http://www.dontfeartheinternet.com)

<help>

HTML basics

www.w3schools.com/html

CSS basics

www.w3schools.com/css