

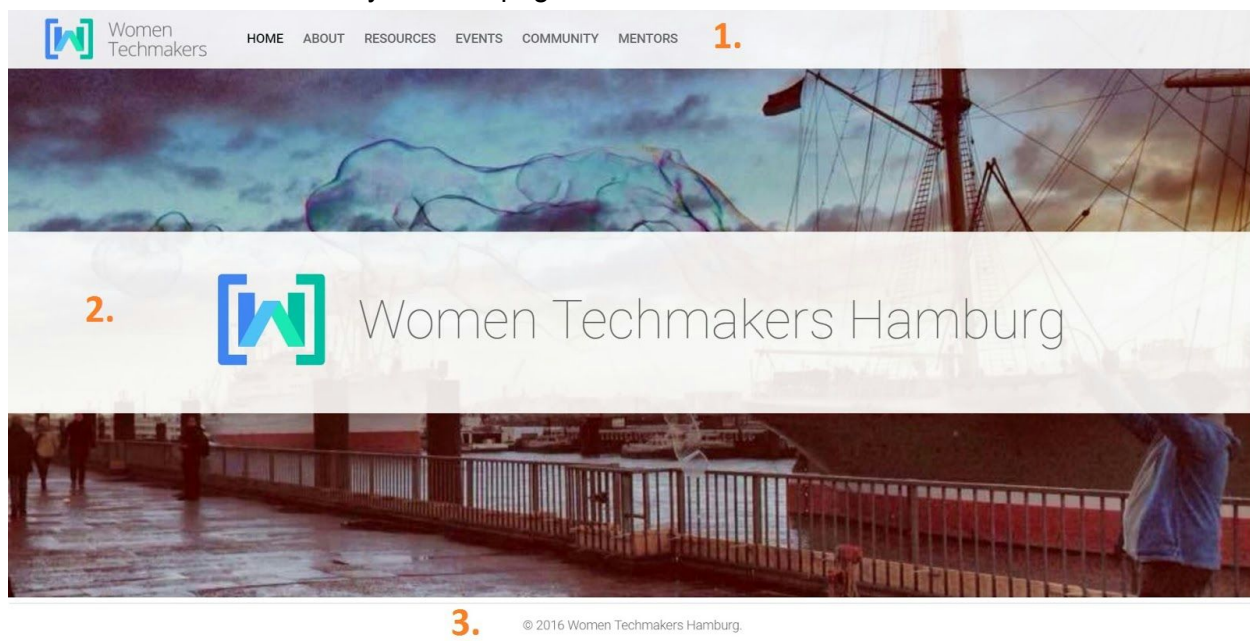
# Women Techmakers Hamburg

## HTML & CSS

Today we are going to develop parts of our WTM Hamburg website together. We're starting with the HTML and CSS for the homepage. This document will give you step-by-step instructions on how to develop the page.

### The result (up front)

Some of our mentors already built the page. The result looks like this:



The numbers on the screenshot mark different areas:

1. Header with WTM logo and navigation links
2. Main content with background picture and so-called “hero container”
3. Footer with Copyright notice

We're going to start building the main structure of the page in HTML5 and then add some styles in CSS3. We are probably not going to be done with it by tonight, but let's see how far we get.

### First steps

1. Open the Brackets editor you downloaded. If you haven't done that already you can find the download link on: <http://brackets.io/>

2. We have set up the structure of our little project already for you. You can download the .zip file: [https://drive.google.com/file/d/0B4J\\_NkhMEQlbVHV2U3FkMENhVm8/view](https://drive.google.com/file/d/0B4J_NkhMEQlbVHV2U3FkMENhVm8/view) Unzip it and open it in a folder.
3. In Brackets, click on *File > Open folder*. Choose the folder with your extracted project files.
4. You should see a few .html files and some folders, like *img* and *css* already in there.
5. Create a new file by right-clicking inside the project overview on the left hand side and choosing *New file*. Call the file *index.html*.
6. Double click the file to look at it and edit it in the right hand side of the Brackets editor.

You have now created the first file we will be working with.

The index.html file will make up our homepage's structure, which we will define using HTML (Hypertext Markup Language). If you're new to HTML and CSS, have a look at the cheat sheets:

- [Mega HTML & CSS cheat sheet](#)
- [HTML5 elements cheat sheet](#)

Don't worry, we won't be using all of these for now ;)

Feel free to look at them whenever you don't know what the element you're using is or does. Also don't hesitate to ask your group's mentors for help!

## Let's HTML!


### Main content

We will start with a part of the main content (see 2. on screenshot).

1. Go back to Brackets and the index.html file.
2. Type in

```
<!DOCTYPE html>
<html>
  <head>
    <title>Women Techmakers Hamburg</title>
  </head>
  <body>
    <h1>Moin World!</h1>
  </body>
</html>
```

3. Save the file.

4. Click on the  symbol on the right top side of Brackets. It will start the live preview of your HTML file by opening it inside your standard browser. Every time you change something inside the index.html just click the button and you will see your changes updated inside the browser.
5. The HTML you just typed in makes up the basic structure of every webpage:
  - a. `<!DOCTYPE html>` tells the browser that this is the beginning of an HTML document.
  - b. All the HTML elements of the page structure go inside the `<html></html>` tags.
  - c. The two elements that every document has are `<head>` and `<body>`.
  - d. Inside the `<head>` we have links to all the other resources that we need for our page, like CSS style sheets or Javascript files. You can compare the head to a person's brain: All the stuff that makes up their personality is inside here, but you generally can't see it.

The head also holds the title of the web page - in our case *Women Techmakers Hamburg*. You can see the title displayed in your browser's tab bar.
  - e. The `<body>` holds all the visible parts that make up a web page. You can compare it to a person's body in that sense.
  - f. Inside the body there's a heading: `<h1>Moin World!</h1>`. This is the part of the HTML that you can actually see when you open the page in your browser. There is 6 different heading sizes in HTML: h1 is the biggest and h6 the smallest.
6. Go ahead and change the text inside the `<h1></h1>` tag to *Women Techmakers Hamburg*, save and see if it changes in your browser.
7. Inside the body tag add the following elements in order.
  - a. `<header></header>`
  - b. `<main></main>`
  - c. `<footer></footer>`
8. Cut the h1 heading and paste it inside the `<main></main>` tags.
9. Insert an image with the WTM logo before the h1 heading. Specify the *width* and *height* to tell the browser how big our image will be. Look at the first cheat sheet to find out how to specify an image with attributes in HTML (you have to scroll down a bit). Ask for help if you're stuck!
10. The image we want to display here is located under *img/wtm-logo-icon.svg* in your project folder. To display it in your page you have to add the (relative) path to the image inside the src attribute of your img tag: ``.
11. Add the *alt="Some meaningful name"* attribute to the image. The alt attribute specifies a

text alternative for the image. Change the text to something meaningful ;)

12. Your code should look like this now:

```
<!DOCTYPE html>
<html>
<head>
  <title>Women Techmakers Hamburg</title>
</head>
<body>
  <header></header>
  <main>
    
    <h1>Women Techmakers Hamburg</h1>
  </main>
  <footer></footer>
</body>
</html>
```

13. Save the file and look at the live preview inside your browser. Is the image being displayed? Does everything look right?

14. Now is the right time to ask questions if you didn't understand something or want to know more!

## The navigation bar

This is the topmost part of our web page (see 1. on screenshot). In the future - when we have more than one page - this will be used to navigate between them via links.

1. We will build our navigation inside the `<header></header>`.
2. Use the `<nav></nav>` tag to start off with the navigation inside the header.
3. Most web page navigations are made up of *lists of links* to different pages. Since we don't have more than one page, the links won't do anything yet, but we are planning on adding more pages later on.
4. Inside the navigation, add an *unordered list* with 5 *list elements* (see cheat sheet).
5. Save the file and look at the result in your browser. You should be able to see the so-called bullet points.
6. Now see what happens when you change the unordered list into an *ordered list* and reload the page.
7. Reset the last step so you have an unordered list again.
8. Each list element will hold one (*anchor*) *link* that references one of our future html documents. The first link has a *hyperlink reference (href)* to our *index.html* document itself. It looks like this: `<a class="active" href="index.html">Home</a>`  
The text between the tag is what we will see as the clickable link text. Copy the above code inside your first list element.

*Info: The class attribute specifies a classification for our link. We can use it to style our link via a reference to its class in our CSS file. Such class attribute is called a CSS Class selector.*

9. Use the following 4 links inside the rest of the list elements:

- a. `<a href="about.html"></a>`
- b. `<a href="resources.html"></a>`
- c. `<a href="events.html"></a>`
- d. `<a href="community.html"></a>`
- e. `<a href="mentors.html"></a>`

10. Save the file and open it in your web browser.

11. Why can you only see the first link? How can you fix this problem?

12. We now want to add our logo and a link to our home page *index.html* before our navigation by adding the following code:

```
<h1 class="logo"><a href="index.html">Women Techmakers  
Hamburg</a></h1>
```

13. You might be wondering how we are going to display the WTM logo without an image tag. The answer is CSS: We are going to put a background image on the anchor link in the next steps. But first take a look at this code and compare it to yours:

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>Women Techmakers Hamburg</title>  
</head>  
<body>  
  <header>  
    <nav>  
      <ul>  
        <li>  
          <a class="active" href="index.html">Home</a>  
        </li>  
        <li><a href="about.html">About</a></li>  
        <li><a href="resources.html">Resources</a></li>  
        <li><a href="events.html">Events</a></li>  
        <li><a href="community.html">Community</a></li>  
        <li><a href="mentors.html">Mentors</a></li>  
      </ul>  
    </nav>  
  </header>  
  <main>  
      
    <h1>Women Techmakers Hamburg</h1>  
  </main>  
  <footer></footer>  
</body>  
</html>
```

**Important: Before you start with the CSS, you need to make sure to get the rest of the**

**HTML markup that the index.html is made up of. You can find the file [here](#). Copy all the contents and paste them into your local index.html file before you continue! Ask your mentors if you have questions about the other HTML elements in the document.**

## Introduction to CSS Selectors

CSS Selectors are part of a CSS rule set that actually selects the content you want to style. They can be classified into several categories, but we're only going to focus on the following selectors:

### 1. Universal Selector

- It's a wild card character (\*) that selects all elements on a page.

E.g. CSS:

```
* {  
    margin: 0;  
}
```

### 2. Element Type Selector

- It's also referred to simply as a "type selector". This selector must match one or more HTML elements of the same name. E.g. A selector of <ul> would match all HTML unordered lists, or <ul> elements.

E.g. HTML:

```
<ul>  
    <li></li>  
    <li></li>  
</ul>
```

E.g. CSS:

```
ul {  
    color: red;  
}
```

### 3. Class Selector

- It's the most useful of all CSS selectors. It's declared with a dot (.) preceding a string of one or more characters defined by the developer. This selector also matches all elements on the page that have their class attribute set to the same value as the class.

E.g. HTML:

```
<div class="inverted-content"></div>  
  
<section class="inverted-content"></section>  
  
<h2 class="inverted-content"></h2>
```

E.g. CSS:

```
.inverted-content {
    background-color: black;
    color: white;
}
```

#### 4. *Descendant Combinator*

- This selector is called “combinator” since it allows you to combine two or more selectors so you can be more specific in your selection method when you define your CSS.

E.g. HTML:

```
<div class="container">
    <div class="box"></div>
</div>
```

E.g. CSS:

```
.container .box {
    margin-top: 20px;
}
```

#### 5. *Pseudo Class*

- This selector uses a colon character to identify a pseudo-state that an element might be in the state of being hovered (moused over) in the browser, or in the state of being focused.

E.g. CSS:

```
.text:hover,
.text:focus {
    text-decoration: none;
}
```

## Introduction to CSS Properties & Values

CSS Properties are the keys that allow you to style your HTML elements via CSS Selectors in your web page. The CSS Values are all the options each CSS Property contains. Some CSS Properties contains completely different values and others contains the same as others.

The CSS Property is always declared first (to the left), and right after a colon (:) and space, its desired CSS Value (to the right).

E.g.

```
CSS Property: CSS Value;
```

E.g. CSS:

```
float: right;
top: 0;
padding-top: 20px;
```

## Let's CSS!

### The navigation bar


1. We will continue with a part of the navigation bar (see 1. on screenshot).
2. Go back to Brackets and look inside the "css" folder. There you should find 5 CSS files. We're only going to edit one of those, which will be our customized CSS. The other files are part of the framework we're using and we won't need to touch those at all. You should open the "style.css" file.
3. You'll see in this file that some of the CSS properties have been already prepared for you, and some of them will be need to fill out by you today.
4. Let's take a look at the module called "HEADER & NAVIGATION STYLES". Scroll down your document until you find it or make a quick search with brackets.
5. Now you should find the following CSS Selector and uncomment the properties inside this selector. *To uncomment those properties, we are simply going to remove the slash and asterisk at the beginning (/\*) and at the end (\*/) of the properties.*

E.g. CSS Commented:

```
.logo a {  
    /* width: 189px; */  
}
```

E.g. CSS Uncommented:

```
.logo a {  
    width: 189px;  
}
```

6. Click on the  symbol on the right top side of Brackets to look at your live preview again. By now you should be able to see the Women Techmakers logo in your browser, instead of the underlined text.
7. Now let's uncomment all of the CSS Properties in the "CSS RESETS" and "UTILITY - HTML ELEMENTS" modules, thus we can start shaping the CSS Selectors that are commonly used through our site template. After uncommenting them, switch to the Live Preview in Brackets and look at the difference styles that have applied to our template.
8. Now let's add some new CSS Properties and Values and to our navigation bar to style it. In order to do so go back to the module "HEADER & NAVIGATION STYLES". And we're going to style the following CSS Selectors:

```
.header {  
  
}
```



```

.logo {

}

.nav-trigger {

}

.nav ul li {

}

.menu,
.nav a {

}

.menu:hover,
.menu:focus {

}

.nav a.active {

}

```

- Now you should see the navigation bar taking shape. Our logo has been placed. Our navigation links have been formatted with certain size, color and alignment. But we have a “Menu” link displaying on top of our navigation, and we don’t need this on big screens. Let’s get rid of this and place it only in small screens, where we’ll need to hide our navigation links and only display them if we click on that “Menu” link.

*Info: In order to display/hide our desired HTML elements in our screens, we need to make use of Media Queries in our CSS.*

## **Introduction to CSS Media Queries (Responsive Web Design)**

Media Queries is a CSS3 module that allows content rendering to adapt to conditions such as screen resolution (E.g. smartphone screen vs. computer screen). The use of this module is mostly known as “Responsive web design” (RWD) technology.

Media Queries will be defined by breakpoints on our stylesheet. Those breakpoints are the point (screen size) at which your website template is being rendered by the device (computer screen, smartphone, tablet).

All the CSS Selectors that we wish to edit or re-style at a certain device Breakpoint, will be added inside a Media Query Breakpoint defined by us.

E.g. Empty Media Query Breakpoint targeting a screen with a maximal width of 768px.

```
@media only screen and (max-width: 768px) {  
  
}
```

E.g. Empty Media Query Breakpoint targeting a screen with a minimal width of 769px.

```
@media only screen and (min-width: 769px) {  
  
}
```

E.g. Media Query Breakpoint targeting a screen with a maximal width of 768px, with 1 CSS Selector

```
@media only screen and (max-width: 768px) {  
    .wrapper {  
        padding-right: 35px;  
    }  
}
```

E.g. Empty Media Query Breakpoint targeting a screen with a minimal width of 769px, with 1 CSS Selector

```
@media only screen and (min-width: 769px) {  
    .wrapper {  
        margin-top: 50px;  
    }  
}
```

## The navigation bar

10. Let's go to the "HELPER CLASSES" module and add some CSS Properties and Values into the ".visible-mobile" Class Selector. We'll add 1 CSS Property in the regular CSS declaration, and a different one inside a Media Query with a Breakpoint of "max-width: 768px", since our Responsive Grid Framework already came up with that 1 Breakpoint.

*Info: Every time we want to add certain styles to an HTML Element either in small screens or big screens, we'll need to do it inside that already defined Breakpoint in our Framework.*

11. It's time we go back to the "HEADER & NAVIGATION STYLES" module and look for the Media Query already defined in our template:

```
@media only screen and (max-width: 768px) {  
  
}
```

12. There we'll uncomment all of the CSS Properties and Values, and look at your live preview right after it. By now you should be able to see our Menu link and Navigation links fully working responsively in your browser. You should be able to click on the "Menu" and see the Navigation bar hide/display effect.

## Main content

We will continue with a part of the fullscreen image and logo (see 2. on screenshot).

1. Let's go ahead and select an image we'd like to display in our Homepage through the whole screen. Go to the "img" folder and choose an image you like the most from the ones named "hamburg- ...".
2. After you've made your choice. Pay attention in the number of the image. E.g. -01, -02, etc. You're going to declare the name of this image next.
3. Let's scroll down to the "HOME PAGE STYLES" module and add new styles to the following CSS Selectors:

```
.main--hero {  
    /* Our background image CSS Property will be declared here */  
}  
  
.sec--hero {  
  
}  
  
.sec--hero__logo {  
  
}  
  
.sec--hero .h2 {  
  
}  
  
@media only screen and (min-width: 769px) {  
    .sec--hero__logo {  
  
    }  
}
```

4. By now, you should be able to see the image you chose on your screen after clicking on the Live Preview in Brackets. You can resize your screen and see that the image should stay full screen at all times, no matter what size of screen you have.
5. Next let's style our Big Women Techmakers logo and that headline with the name of our group. To do so, let's look for the ".sec--hero .section" CSS Selector. You'll only need to uncomment all the CSS Properties and Values.
6. Go back to your Live Preview in Brackets and revised that your headline and logo have been styled.

## Footer

Lastly, we'll continue with the last part in our website template. The footer (see 3. on screenshot).

7. Let's scroll down to the "FOOTER STYLES" module and add new styles via CSS Properties and Values to the following CSS Selector:

```
.footer {  
  
}
```

8. Click on the Live Preview in Brackets and Whoala! You shall have your Women Techmakers Homepage completely styled and fully responsive if you resize your browser.

## Further pages

If your team is fast enough to finish the Homepage before our time is up during the Workshop, you'll be able to continue further styling another page in our Website. Ask your mentor about it and we hoped you had enjoyed the Workshop today and learned something new.

# Happy coding ladies!

**Women Techmakers Hamburg Team**  
Lead, Organizers & Mentors