Commands:

Shift + Opt + F - format the Document in VS Code Shift + Opt + \uparrow / \downarrow - duplicate line in up or down direction fn/option - write text in multiple places

Section 3: HTML: The Essentials

Essentials:

```
1 <b>...</b> - bold text
2 ... - paragraph
3 <h1-h6>...</h1-h6> - headings
4 <a href="link.com or .html (for the file)"><!-- Name of a link --></a> - hyperlink
5 <!--..-> - comment
```

HTML Sceleton:

Lists:

```
1 ... - Ordered List (Numbered List)
2 ... - Unordered List (Bulletpoints)
3 li>... - List (Child of ul or ol)
```

Nested List:

Image:

```
1 <img src="image source"> - image
```

- 2 $^{<img\ src="image\ source"\ width=""\ height=""> image\ with\ height\ and\ width\ (but\ better\ with\ CSS)}$
- 3 adding alt to the image (for the screenreader)

Section 4: HTML: Next Steps & Semantics

```
1 <div>...</div> - container for elements (is a block element)
2 <span>...</span> - wrap an element, so it can be changed in CSS (mostly for a piece of text)
3 <hr> - divider
4 <br> - line break
5 <sup>...</sup> - create a superscript (f.e. 1 in 1/2)
6 <sub>...</sub> - create a subsrcipt (f.e. 2 in 1/2)
```

HTML Entities:

```
1 &lt - <
2 &gt - >
3 &copy - ©
4 ...
```

Semantik:

```
1 <main>...</main> - main content of the page
2 <nav>...</nav> - navigation links
3 <section>...</section> - section of the page / of the content
4 <article>...</article> - article (can be used on its own & independent)
5 <aside>...</aside> - side content (f.e. ads)
6 <header>...</header> - header of the page
7 <footer>...</footer> - footer of the page
8 <time>...</time> - time (f.e. date)
9 <figure>...</figure> - figure (f.e. image with caption)
```

Emmet:

```
1 > - child: main>section>h1 =>
                                                                             ∃ HTML
2
       <main>
           <section>
4
               <h1>...</h1>
5
           </section>
6
       </main>
   + - sibling: h1+h2+h2 =>
       <h1>...</h1>
8
9
       <h2>...</h2>
       <h2>...</h2>
11 () - grouping
12 * - multiplication: h1*3 =>
     <h1>...</h1>
13
       <h1>...</h1>
14
```

```
15 <h1>...</h1>
16 $ - item numbering: nav>ul>li.item$*3 =>
18
    19
         ...
20
         class="item2">...
21
          ...
22
      </nav>
23
24 {} - text: a{Click me!} =>
    <a href="...">Click me!</a>
```

Section 5: HTML: Forms & Tables

HTML Tables:

```
1 ... - table
2 :... - table data (cell)
3 :... - table header (bold)
4 .... - table row
5 <thead>...</thead> - table header (row)
6 ... - table body (row)
7 <tfoot>... - table footer (row)
8 .... - table header (column span)
```

HTML: Forms

```
<form action="...">...</form> - form with an action / link ("/" + to
                                                                             UHTML
   where the form goes; f.e. /home)
2 <input type="..."> - input
3 <input type="..." placeholder="..."> - placeholder
4
5 Text input form with placeholder "name":
6 <form action="...">
7
       <input type="text" placeholder="name">
8 </form>
9
10 <label for="...">...</label> - label for input
11
12 Using label (for = unique id of the input):
13 <label for="name">Name</label>
14 <input type="text" id="name" placeholder="name">
   <input type="text" name="name"> - input with name (for the server; f.e. after
16
   submitting the form, name=John or https://www.google.com/search?q=John)
17
18 <button type="submit">...</button> - button (goes to the action of the form)
19 <button type="reset">...</button> - reset button (resets the form)
   <button type="button">...</putton> - button (does not go to the action of the
   form)
21
22 <input type="checkbox" name="..."> - checkbox with name
23 <input type="radio" name="..."> - radio button with name
<input type="..." name="..." value="..."> - value of the input (f.e. for
   checkbox or radio button)
25 <select>...</select> - select box
26 <option>...</option> - option in the select box
27
```

Built in validations:

Section 6: CSS: The Very Basics

Styles:

External style: link to CSS (href: "style.css")

```
€ CSS
```

```
Color changing in CSS:
```

3 color: red;

1 style.css:

2 h1 {

4 }

```
1 ... {color: red;}
2 /* CSS color*/
3 ... {background-color: red;}
4 /* CSS background color*/
5 ... {background: red;}
6 /* CSS background (color, image, position, repeat, size)*/
7 ... {color: rgb(255, 0, 0);}
8 /* CSS color (RGB)*/
9 ... {color: #FF0000;}
10 /* CSS color (hexadecimal)*/
```

Text properties:

```
1 ... {text-align: center;}
2 /* CSS text alignment (can be left, right, center, justify)*/
3 ... {width: 100px;}
4 /* CSS width*/
5 ... {height: 100px;}
6 /* CSS height*/
7 ... {font-weight: bold;}
8 /* CSS font weight (can be normal, bold, bolder, lighter)*/
```

```
9 ... {font-size: 20px;}
10 /* CSS font size*/
11 ... {text-decoration: underline;}
12 /* CSS text decoration (can be none, underline, overline, linethrough)*/
13 ... {letter-spacing: 2px;}
14 /* CSS letter spacing*/
15 ... {font-family: Arial, sans-serif;}
16 /* CSS font family (can be serif, sans serif, monospace, cursive, fantasy) */
```

Section 7: The World of CSS Selectors

```
 CSS  
1 * {color: red;}
2 /*CSS universal selector (selects all elements)*/
   ..., .... {color: red;}
4 /*CSS group selector (selects all elements with the same style)*/
5 #id {color: red;}
6 /*CSS id selector (selects the element with the id)*/
7 .class {color: red;}
  /*CSS class selector (selects all elements with the class; fe. <span
   class="class"> ... </span>)*/
9 ... ... {color: red;}
/*CSS descendant selector (selects all elements inside the element, fe. all
   paragraphs p inside the div)*/
11 ... + ... {color: red;}
/*CSS adjacent sibling selector (selects the element that is next to the
   element; fe. h1 and p are siblings/are next to each other \Rightarrow h1 + p)*/
13 ... > ... {color: red;}
/*CSS child selector (selects the element that is a child of the element; fe. h1
   is child of the div => div > h1 => h1 will be changed)*/
15 ... [ ... = "..."] {color: red;}
   /* CSS attribute selector (selects the element with the attribute; fe. input
16 with type text => input[type="text"] or section[class="class"] => section with
   class "class") */
17 ... [ ... *= "..."] {color: red;}
   /st CSS attribute selector (selects the element with the attribute that contains
18 the value; fe. input with type text => input[type*="text"] or
   section[class*="class"] => section with class "class") */
```

Pseudo classes:

```
1 ...:hover {color: red;}
2 /* CSS hover selector (selects the element when the mouse is over it) */
3 ...:checked {color: red;}
4 /* CSS checked selector (selects the element when it is checked; f.e. checkbox or radio button) */
5 ...:nth-of-type(2n) {color: red;}
6 /* CSS nth type selector (selects the element that is the nth child of the element; f.e. every second child => 2n) */
```

Pseudo elements:

```
1 ...:after {color: red;}
2 /* CSS after selector (selects the element after the element) */
3 ...:before {color: red;}
4 /* CSS before selector (selects the element before the element) */
5 ...:first-letter {color: red;}
```

```
6  /* CSS first letter selector (selects the first letter of the element) */
7  ... ::first-line {color: red;}
8  /* CSS first line selector (selects the first line of the element) */
9  ... ::selection {color: red;}
10  /* CSS selection selector (selects the selected text of the element) */
```

The CSS Cascade:

```
1 h1 {color:red}
2 h1 {color:blue}
3
4 => h1 is blue

CSS
```

CSS Specificity:

```
1  ID > Class > Element
2
3  section p {color:teal;} /* => 0 0 2 */
4  #submit {color: olive;} /* => 1 0 0 */
5  /* 1 0 0 is far more specific than 0 0 2 */
6  nav a.active {color: orange;} /* => 0 1 2 */
7
8  Also: Inline styles > ID
9
10 ... {color: red !important;} /* !important is the most important
11 => !important > Inline styles > ID > Class > Element */
```

CSS Inheritance:

```
1 /* certain things don't inherit at default: buttons, input, etc. ... */
2 button {color: inherit;} /* inherit color from the parent element */
```

Section 8: The CSS Box Model

```
1 ... {width: 100px;} /* width of the element */
2 ... {height: 100px;} /* height of the element */
```

Border:

```
1 ... {border: lpx solid red;} /* border (width, style, color) */
2 ... {border_width: lpx;} /* border width */
3 ... {border_style: solid;} /* border style (solid, dotted, dashed, double, groove, ridge, inset, outset) */
4 ... {border_color: red;} /* border color */
5 ... {box-sizing: border-box;} /* box sizing (content-box, border-box) */
6 ... {border-radius: l0px;} /* border radius (round corners) */
```

Padding:

```
1 ... {padding: 10px;} /* padding (top, right, bottom, left) */
2 ... {padding: 10px 20px;} /* padding (top/bottom, right/left) */
```

Margins:

```
1 ... {margin: 10px;} /* margin (top, right, bottom, left) */
2 ... {margin: 10px 20px;} /* margin (top/bottom, right/left) */
```

Display properties:

```
1 ... {display: block;} /* display block (takes the whole width) */
2 ... {display: inline;} /* display inline (takes the width of the content) */
3 ... {display: inline-block;} /* display inline block (takes the width of the content, but can have width and height) */
4 ... {display: flex;} /* display flex (flexbox) */
5 ... {display: grid;} /* display grid (grid) */
```