Introduction to Web Development Workshop

Girls In Tech London

By the end of the workshop you will:

Create your own single profile page in HTML and CSS.

Here's what you'll create today!

Hi, I'm Shannon Farvolden! 🙋‍♀️

I am a software engineer who is passionate about emerging technologies, and continually challenging myself in learning new skills. I graduated from UBC Okanagan with Honours in Computer Science and now work as a Software Engineer at Pace Revenue Management. Outside of work you can find me at tech meetups, hackathons, and getting involved in mentorship programs.

Experience

- Software Engineer - Pace
- Software Developer - Broadridge
- Software Developer - UBC

Education

- The University of British Columbia
  - B.Sc. Honours Computer Science

Projects

- Intro to HTML & CSS - workshop
- Preparing to land your first job in tech - panel
- How set coding goals & stick to them - panel

And by doing so, you will:

➜ **Gain a basic understanding of HTML and CSS**
What they mean and their roles in web development

➜ **Be able to inspect elements of any website**
Using the Google Chrome Developer Tools

—

Your Instructors & Mentors today

Our Lead Instructors:
Kim Diep – Software Engineer @ M&G Plc
Shannon Farvolden - Software Engineer @ Pace

Assistant Instructors:
Katie Sanderson – Software Engineer @ Goldman Sachs
Larisa Aionesei – Data Engineer @ Avanade
Zahra Waheed - Bioinformatician @ EMBL-EBI

Workshop Values:

- Please stay muted if you are not speaking

- Ask questions through the Slack channel
  #html-css-workshop

- Ask questions out loud if you wish

- Learn & support one another

- Learn at your own pace; it's not a
  competition!

Setup
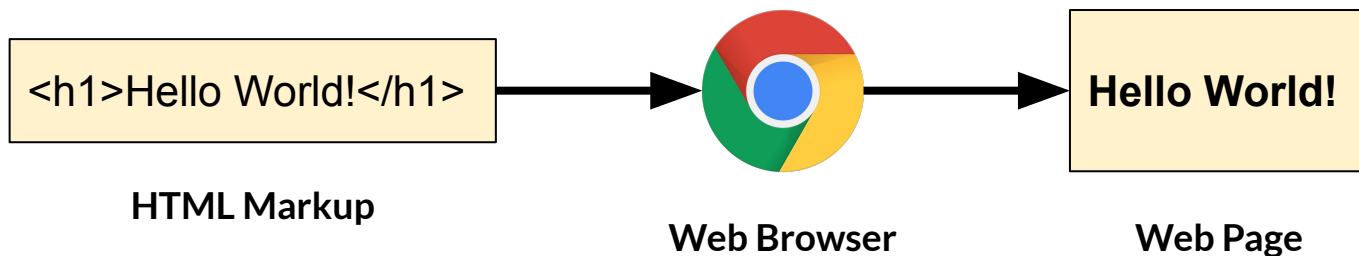
Slack **#html-css-workshop**

Code Editor (Visual Studio Code)

Google Chrome browser

What is HTML?

- Hyper Text Markup Language (HTML) is the backbone used to create web pages
- Web Browsers like Google Chrome render HTML
- Analyse a .html file based on a set of rules

`<h1>Hello World!</h1>`

Hello World!

HTML Markup

Web Browser

Web Page

Downloading the Sample Project - DEMO

1. Exercise

Download sample project

➔ **Head over to** https://github.com/shannonfarvolden/html-css-workshop

➔ **Find the Code button and click download zip.** In the upper right hand corner

➔ **Unzip and open the folder in Visual Studio Code**

<> **Code** ⊙ Issues ⑴ Pull requests ▶ Actions ⊞ Projects 📖 Wiki ⊘ Security ∿ Insights

ᛘ master ▾ ᛘ **2** branches ⬚ **0** tags

Go to file Add file ▾ ⬇ Code ▾

shannonfarvolden Update readme 65b3ef7 4 hours ago ⟲ **19** commits

📁 solutions Solutions updates 4 hours ago

📄 README.md Update readme 4 hours ago

📄 index.html Adds solutions directory with exercise solutions and tidied st… 2 days ago

📄 style.css Adds solutions directory with exercise solutions and tidied st… 2 days ago

README.md ✎

HTML & CSS Workshop

Add your own code to `index.html` and `style.css` .
Completed code can be found in the solutions directory.

What is an HTML Element?

HTML elements are the building blocks of HTML pages

An HTML element is defined by a start tag <>, some content, and an end tag </>

```
<tagname>
Content goes here...
</tagname>
```
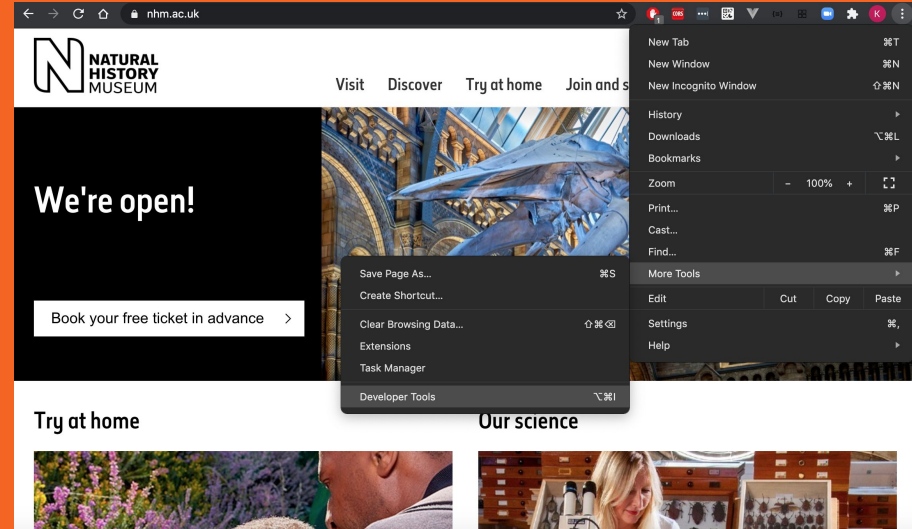
Inspecting Elements with Google Chrome Developer Tools - DEMO

Tools built into Google Chrome

Can edit pages on-the-fly

Helps in website building process

Great for learning!

2. Exercise

Inspecting Elements with Google Chrome Developer Tools

➜ **Go to a website URL of your choice**

➜ **Use the Google Chrome Developer Tools to inspect the HTML elements**
What are some of the common tag names you see?

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport"
content="width=device-width,
initial-scale=1.0" />
    <title>Document</title>
  </head>
  <body>
    <!-- Add your code
below-->
    <h1>Welcome to the
workshop! You're all set
up!</h1>
  </body>
</html>
```

HTML Boilerplate

HTML Boilerplate - DEMO

← → C ⌂ ⓘ 127.0.0.1:5500/starter.html ☆

Welcome to the workshop! You're all set up!

3. Exercise

HTML Boilerplate

➜ **Open index.html in Google Chrome**

You should see: "Welcome to the workshop! You're all set up!"

➜ **Change the text inside the <h1> tag**

HTML Text

Headings can be created by <h(number 1-6)>

This will display the largest size heading

```
<h1>My First Heading</h1>
```

Paragraphs which are displayed as smaller text can be created using p tag

```
<p>My first paragraph.</p>
```

Heading level 1

Heading level 2

Heading level 3

Heading level 4

Heading level 5

Heading level 6

Adding Your Profile Page Greeting - DEMO

<h1> Hi, I'm Shannon Farvolden! 🧑‍💻 **</h1>**

I am a software engineer who is passionate about emerging technologies, and continually challenging myself in learning new skills. I graduated from UBC Okanagan with Honours in Computer Science and now work as a Software Engineer at Pace Revenue Management. Outside of work you can find me at tech meetups, hackathons, and getting involved in mentorship programs.

in 🐦 🐙

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Made with 💜 by Shannon

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<p>

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4. Exercise

Adding Your Profile Page Greeting

➔ **Profile Page Greeting Message**

Change the contents within the <h1> tag to a greeting of your choice

➔ **Add an intro paragraph**

Add paragraph <p> opening and closing tags and an introductory message within these tags

Structuring your Page with <div> Containers - DEMO

<div id="card">

Hi, I'm Shannon Farvolden! 🤦‍♀️

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</div>

<div id="heading">

</div>

<div id="intro">

Hi, I'm Shannon Farvolden! 👩‍💻

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</div>

5. Exercise

Structuring your Page with <div> Containers

➜ **Add Card container: <div> with id="card'**

➜ **Add Heading container: <div> with id="heading"**

➜ **Add Intro Container: <div> with id="intro and place your heading tag <h1> and paragraph tag <p> inside**

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Adding a Profile Picture to Your Page - DEMO

Images are displayed using the **img** tag.
src is used to specify source of the image.
alt is the alternative text displayed if the image is not found.
width specifies the width of the image in pixels
height specifies the height of the image in pixels

Because the img tag contains attributes only and no content, it does not have a closing tag

```html
<img src="profile.jpg"
alt="Profile picture"
id="profile-picture"
width="250"
/>
```

6. Exercise

Adding a Profile Picture to Your Page

➔ **Try adding an <img> tag inside the heading <div> to include your own photo on the page**

Save a photo of your choice into the html-css-workshop folder.

Update the filename in src to be the name of your picture.

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in **🐦** **🐙** **<a>**

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Adding Links - DEMO

Links are created using the **a** tag with the location passed in the **href** attribute (href stands for "Hypertext Reference")

Some tags, such as this tag, will allow you to pass through an attribute to specify additional information about the element.

```
<a href="https://twitter.com/GirlsinTech">Twitter</a>
```

7. Exercise

Adding links to social media

➜ **Try adding your own social media links using the <a> tag**

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Heading 3

Unordered List

Creating Your Experience section - DEMO

You can create an unordered list of bullet points using the **ul** tagname with **li** for list items

To change your list into an ordered list with numbers update **ul** to **ol**

```html
<h3>Experience</h3>
<ul>
  <li>Software Engineer - Pace</li>
  <li>Software Developer -
Broadridge</li>
  <li>Software Developer - UBC</li>
</ul>
```

```html
<h3>Experience</h3>
<ol>
  <li>Software Engineer - Pace</li>
  <li>Software Developer -
Broadridge</li>
  <li>Software Developer - UBC</li>
</ol>
```

8. Exercise

Creating Your Experience section

➔ **Add <h3> heading called 'Experience'**

➔ **Add <ul> opening and closing tags**

➔ **Add <li> list items inside your unordered list**

9. Exercise

Creating Your Education and Projects Section

➜ **Now that you have an Experience section, you can apply the same approach to Education and Projects**

Wow! You're learning a lot! Keep it up! ⭐

Time for a BREAK! 😅

CSS: What is it and what does it do? 🎨

```
body {
    background-color: lightblue;
}
```

CSS / Google Chrome Developer Tools - DEMO

Creating your First CSS file and linking the Stylesheet - DEMO

A style sheet file called '**style.css**' contains all the CSS instructions to style our page

The **<link>** element inside the **<head>** section let's the HTML page know which stylesheet file to use - this is called a **reference**

This has been pre-linked for you

```
<link rel="stylesheet"
type="text/css" href="style.css"
/>
```

10. Exercise

Creating your First CSS file and linking the Stylesheet

➜ **You should have a 'style.css' file inside your project folder**

➜ **Notice the <link> element to reference your stylesheet file**

Make sure this is inside the <head> opening and closing tags!

Styling the <Body> - DEMO

In CSS we can target the styling to any element.

Let's change the background-color of our body and add a margin

```
body {
  background-color: lightblue;
  margin: 0px;
}
```

11. Exercise

Styling the <Body>

➜ **Change the background color**

➜ **Set the margin to 0px**

➜ **Optional Challenge: Instead of background color, try adding a background image**

Styling the Headings - DEMO

Let's target our <h3> tags and change the color

```
h3 {

  color: purple;

}
```

12. Exercise

Styling the Headings - DEMO

➔ **Add CSS code to change the color of your <h3> headings**

➔ **Optional Challenge: Add some text-decoration to your headings to underline it**

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<footer>

<p> Made with 💜 by Shannon **</p>**

</footer>

Add the Footer - DEMO

Let's add in a footer!!

```
<footer>



</footer>
```

Styling the Footer - DEMO

Let's add in a paragraph tag inside our footer for a personal touch!

```
<footer>
  <p>Made with 💜 by Girls in Tech</p>
</footer>
```

Styling the Footer - DEMO

Let's add in some CSS to style our
<footer>

```
footer {
 background-color: #adbce6;
 position: fixed;
 bottom: 0;
 width: 100%;
 height: 60px;
 text-align: center;
}
```

13. Exercise

Styling the Footer

➜ **Add a `<footer>` tag inside the `<body>`**

➜ **Add a paragraph inside your `<footer>`**

➜ **Add an emoji if you like! 😊**

➜ **Choose a color for your `<footer>`**

Styling Elements by id - card <div> DEMO

To style a particular part of your HTML, you can **target CSS on any particular id**

Let's style our **card <div>** which has **id="card"**

We prefix **id** names with a **#** on the css

```css
#card {
  background-color: white;
  margin: 30px;
  margin-bottom: 90px;
  padding: 20px;
  border-radius: 2px;
  box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
}
```

Styling the Profile Picture - DEMO

Let's style our profile picture which has **id="profile-picture"**

We prefix **id** names with a **#** on the css

```css
#profile-picture {

 width: 250px;

 height: auto;

 align-self: center;

 border-radius: 5px;

}
```

Styling the Heading and Intro <div> - DEMO

Let's make some minor tweaks to the **heading <div>** and **intro <div>**

We prefix **id** names with a **#** on the css

```css
#heading {

 display: flex;

}



#intro {

 margin: 20px;

}
```

14. Exercise

Styling Elements by id

➔ **Add CSS to style your card <div>**

➔ **Add CSS to style your profile picture <img>**

➔ **Add CSS to tweak the layout of your heading and intro <div>**

➔ **Optional Challenge: What happens if you change the border-radius?**

Using Font Awesome Icons - DEMO

Adding the Font Awesome Library - DEMO

To use FontAwesome icons, we need to add a reference inside our HTML file.

We will be using Font Awesome 4.7.0

https://www.bootstrapcdn.com/fontawesome/

This has been pre-linked for you

```
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.
com/font-awesome/4.7.0/css/font-aweso
me.min.css"
integrity="sha384-wvfXpqpZZVQGK6TAh5P
VlGOfQNHSoD2xbE+QkPxCAFlNEevoEH3Sl0si
bVcOQVnN" crossorigin="anonymous"/>
```

Applying a Social Media Icon to a Link - DEMO

Let's head over to the Font Awesome Icon Library https://fontawesome.com/v4.7.0/icon/twitter

Insert the icon inside your **<a>** tags

```html
<a href="https://twitter.com"></a>
```

```html
<a href="https://twitter.com"><i
class="fa fa-twitter"
aria-hidden="true"></i></a>
```

Styling our Social Media Icons - DEMO

In CSS, you can style multiple elements in one go by setting a **class**

We have three icons to style

We prefix **class** names with a **.** on the CSS

```html
<a class="social-media"
href="https://twitter.com"><i
class="fa fa-twitter"
aria-hidden="true"></i></a>
```

```css
.social-media {
  font-size: 25px;
  margin: 5px;
  color: #0077b5;
  text-decoration: none;
}
```

15. Exercise

Font Awesome

➜ **Choose your favourite icon**

Head over to the Font Awesome Icon Library.
https://fontawesome.com/v4.7.0/icons/

➜ **Insert icons inside your <a> tags (social media links)**

➜ **Optional Challenge: Add CSS to style your icons**

Applying Google Fonts - DEMO

Applying Google Fonts - DEMO

Google Fonts offer a richer selection of font styles for your page.

We're choosing the Indie Flower font
https://fonts.google.com/specimen/Indie+Flower

First, include the Google Font reference in your HTML document

```html
<link
href="https://fonts.googleapis.com/css2?family=Indie+Flower&display=swap"
rel="stylesheet"/>
```

Applying Google Fonts - DEMO

Then, set the **font-family** for all text inside the **\<body\>** tags

```css
body {
  background-color: lightblue;
  font-family: 'Indie Flower',
cursive;
  margin: 0px;
}
```

16. Exercise

Applying Google Fonts

➜ **Choose your Google Font**

   https://fonts.google.com/

➜ **Link the Google Font to your HTML document**

➜ **Apply the font-family using CSS**

And we're done! Here's our single profile page! 🎉

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Well done! Give yourselves a pat on the back! 🎉 🎈

Thanks for joining! Please fill out our survey, this will help us deliver more free workshops!

Now you're ready to start your web development journey!

Additional Resources:

- codecademy.com
- udemy.com
- udacity.com
- codebar.io
- codefirstgirls.org.uk

Additional Topics:

- Deepen knowledge of HTML, CSS, client side development
- Javascript
- Bootstrap
- Server-side development